Oracle® Order Management

APIs and Open Interfaces Manual

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

- Electronic mail: mfgdoccomments_us@us.oracle.com
- FAX: 650-506-7294 Attn: Oracle Order Management Suite APIs and Open Interfaces

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 11*i* of the *Oracle Order Management APIs and Open Interfaces Manual*.

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

- The principles and customary practices of your business area.
- ***Oracle Order Management***

  If you have never used ***Oracle Order Management***, Oracle suggests you attend one or more of the ***Oracle Order Management*** 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*.

See Other Information Sources 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 Order Management***.

- Chapter 1 gives you an overview of Order Management integration tools and explains how to use these tools to integrate Oracle Manufacturing products with one another and with non-Oracle systems.
- Chapter 2 contains information about Oracle Order Management.
- Chapter 3 contains information about Oracle Pricing.
- Chapter 4 contains information about Oracle Release Management.
- Chapter 5 contains information about Oracle Shipping.

Conventions

The following conventions are used in this manual:

Convention	Meaning
. . .	Vertical ellipsis points in an example mean that information not directly related to the example has been omitted.
. . .	Horizontal ellipsis points in statements or commands mean that parts of the statement or command not directly related to the example have been omitted
boldface text	Boldface type in text indicates a term defined in the text, the glossary, or in both locations.
< >	Angle brackets enclose user-supplied names.
[ ]	Brackets enclose optional clauses from which you can choose one or none.

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 should appear on an otherwise empty line; however, JAWS may not always read a line of text that consists solely of a bracket or brace.

Accessibility of Links to External Web Sites in Documentation

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

Other Information Sources

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

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

Online Documentation

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

- **Online Help** - The new features section in the HTML help describes new features in 11*i*. This information is updated for each new release of ***Oracle Order Management.*** 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 MetaLink.
- **About Documentation** - The Oracle Order Management About Documentation contains new and changed features, software updates, upgrade considerations, new and changed setup steps, new and changed windows, and new and changed public APIs for the latest release of Oracle Order Management. The About document is available on Oracle Meta*Link*.
- **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 Order Management shares business and setup information with other Oracle Applications products. Therefore, you may want to refer to other user's guides when you set up and use ***Oracle Order Management***.

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

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

Guides Related to All Products

Oracle Applications User's Guide

This guide explains how to enter data, query, run reports, and navigate using the graphical user interface (GUI) available with this release of ***Oracle Order Management*** (and any other Oracle Applications products). This guide also includes information on setting user profiles, as well as running and reviewing reports and concurrent processes.

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

User Guides Related to This Product

Oracle Applications User's Guide This guide explains how to enter data, query, run reports, and navigate using the graphical user interface (GUI) available with this release of Oracle Applications products. This guide also includes information on setting user profiles, as well as running and reviewing reports and concurrent processes.

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

Oracle Applications Demonstration User's Guide This guide documents the functional storyline and product flows for Global Computers, a fictional manufacturer of personal computers products and services. As well as including product overviews, the book contains detailed discussions and examples across each of the major product flows. Tables, illustrations, and charts summarize key flows and data elements.

Reference Manuals

Oracle Automotive Implementation Manual This manual describes the setup and implementation of the Oracle Applications used for the Oracle Automotive solution.

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 11*i*.

Oracle Project Manufacturing Implementation Manual This manual describes the setup steps and implementation for Oracle Project Manufacturing.

Oracle Self-Service Web Applications Implementation Manual This manual describes the setup steps for Oracle Self-Service Web Applications and the Web Applications dictionary.

Installation and System Administration

Oracle Alert User's Guide This guide explains how to define periodic and event alerts to monitor the status of your Oracle Applications data.

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 the Oracle Applications product. This manual details additional steps and setup considerations for implementation.

Multiple Organizations in Oracle Applications If you use the Oracle Applications Multiple Organization Support feature to use multiple sets of books for one product installation, this guide describes all you need to know about setting up and using the product with this feature.

Oracle Applications Implementation Wizard User's Guide If you are implementing more than one Oracle product, you can use the Oracle Applications Implementation Wizard to coordinate your setup activities. This guide describes how to use the wizard.

Oracle Applications Developer's Guide This guide contains the coding standards followed by the Oracle Applications development staff. It describes the Oracle Application Object Library components needed to implement the Oracle Applications user interface described in the *Oracle Applications User Interface Standards*. It also provides information to help you build your custom Developer/2000 forms so that they integrate with Oracle Applications.

Oracle Applications Flexfields Guide This guide provides flexfields planning, setup and reference information for the 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 Applications Installation Manual for Windows Clients This guide provides information you need to successfully install Oracle Financials, Oracle Public Sector

Financials, Oracle Manufacturing, or Oracle Human Resources in your specific hardware and operating system software environment.

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

Oracle Applications System Administrator's Guide This manual provides planning and reference information for the System Administrator.

Oracle Applications Concepts

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

Installing Oracle Applications

This guide provides instructions for managing the installation of Oracle Applications products. In Release 11*i*, much of the installation process is handled using Oracle Rapid Install, which minimizes the time to install Oracle Applications, the Oracle8 technology stack, and the Oracle8*i* 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's guides and implementation guides.

Upgrading Oracle Applications

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

Maintaining Oracle Applications

Use this guide to help you run the various AD utilities, such as AutoUpgrade, AutoPatch, AD Administration, AD Controller, AD Relink, License Manager, and others. It contains how-to steps, screenshots, and other information that you need to

run the AD utilities. This guide also provides information on maintaining the Oracle applications file system and database.

Oracle Applications System Administrator's Guide

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

Oracle Alert User's Guide

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

Oracle Applications Developer's Guide

This guide contains the coding standards followed by the Oracle Applications development staff. It describes the Oracle Application Object Library components needed to implement the Oracle Applications user interface described in the *Oracle Applications User Interface Standards for Forms-Based Products*. It also provides information to help you build your custom Oracle Forms Developer 6*i* forms so that they integrate with Oracle Applications.

Oracle Applications User Interface Standards for Forms-Based Products

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

Installation and System Administration

Oracle Applications Concepts

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

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information to help you build your custom Oracle Forms Developer 6*i* forms so that they integrate with Oracle Applications.

Oracle Applications User Interface Standards for Forms-Based Products

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

Other Implementation Documentation

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 Order Management***. This manual details additional steps and setup considerations for implementing ***Oracle Order Management*** with this feature.

Multiple Organizations in Oracle Applications

This guide describes how to set up and use ***Oracle Order Management*** with Oracle Applications' Multiple Organization support feature, so you can define and support different organization structures when running a single installation of ***Oracle Order Management***.

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 Order Management*** 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 Metalink

Oracle Manufacturing 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 APIs and open interfaces found in Oracle Manufacturing.

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 Order Management*** 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 Order Management*** 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 Oracle8*i* 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, an integrated suite of more than 160 software modules for financial management, supply chain management, manufacturing, project systems, human resources and customer relationship management.

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

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

Your Feedback

Thank you for using ***Oracle Order Management*** and this user's manual.

Oracle values your comments and feedback. At the end of this guide is a Reader's Comment Form you can use to explain what you like or dislike about ***Oracle Order Management*** or this user's manual. Send electronic mail to **mfgdoccomments_us@oracle.com**.

1

Integrating Your Systems

This chapter gives you an overview of the Order Management Suite use of Oracle Applications integration tools and explains how to use these tools to integrate Order Management products with one another and with your existing non–Oracle systems.

Oracle Applications integration tools are powerful, flexible tools that enable you to capture data from other Oracle and non-Oracle applications, define necessary format conversions, and direct data to your Oracle Order Management products. Topics covered in this chapter are:

- Overview of Oracle Order Management APIs and Open Interfaces on page 1-2

Overview of Oracle Order Management APIs and Open Interfaces

Oracle Order Management products provide a number of open interfaces so you can link them with non-Oracle applications, applications you build, applications on other computers, and even the applications of your suppliers and customers.

The purpose of this chapter is to help you understand the general model Oracle Order Management products use for open application interfaces. Other chapters in this book provide specific information on how to use each of the open interfaces. Additional functional information on these interfaces is available in each product's user's guide. Additional technical information on these interfaces is available in each product's Technical Reference Manual.

Basic Business Needs

The Oracle Order Management Suite's product APIs and open interfaces provide you with the features you need to support the following basic business needs:

- Connect to data collection devices. This lets you collect material movement transactions such as receipts, issues, quality data, movements, completions, and shipments. This speeds data entry and improves transaction accuracy.
- Connect to other systems — such as finite scheduling packages, computer-aided design systems, custom and legacy manufacturing systems — to create integrated enterprise wide systems.
- Connect to external systems — such as the customer's purchasing system and the supplier's order entry system — to better integrate the supply chain via electronic commerce.
- Control processing of inbound data imported from outside Oracle applications.
- Validate imported data to ensure integrity of Oracle Order Management products.
- Review, update, and resubmit imported data that failed validation.
- Export data from Oracle Order Management products

Oracle Order Management Interfaces

Open Interface Architectures

Oracle Order Management products have three different methods to import and export data:

- Interface Tables
- Interface Views (Business Views)
- Function Calls or Programmatic Interfaces (Processes)

Interface Tables

Interface tables in Oracle Order Management applications provide a temporary storage area for loading information from an external source. After the information is loaded, concurrent programs are executed to validate the information and then to apply the information to the base product tables.

The benefit of an interface table is that it provides a repository where records can be processed and if errors are found it can be edited and resubmitted.

In the Oracle Order Management family of applications you should never write directly to the product's tables. An Oracle Applications validation step is always required. You may achieve this either by loading information into the interface tables and submitting a provided concurrent program to validate and process the information or by using a function call to a programmatic interface.

Interface Views (Business Views)

Views simplify the data relationships for easier processing, whether for reporting or data export. Oracle Order Management products have defined *business views* that identify certain areas of key business interest. You can access this data using your tool of choice. The OE_ORDER_HEADERS_BV is an example of a key business view.

Product views are defined in the Technical Reference Manuals. The view definitions also briefly describe how they are used.

Function Calls or Programmatic Interfaces (Processes)

As an alternative to the two step process of writing to an interface table and executing a program to process the table data, many Oracle Order Management interfaces support direct function calls. A calling application can pass appropriate parameters and execute a public function to invoke the application logic.

The benefit of a function call is that the integration is real time, as opposed to interface tables where the integration is batch.

Summary: Beyond Published Interfaces

The Oracle Cooperative Applications Initiative references many third party products which provide import and export capabilities and allow loose to tight

integration with legacy systems, other supplier systems, and so on. Contact your Oracle consultant for more information about system integration.

Current Documentation For Open Interfaces

Below are the actual names of the tables, views, and modules:

Table 1–1 Table Key

Key	Key
Data Flow Direction	*Inbound* means into Oracle Order Management; *Outbound* means out from Oracle Order Management
Iface Man	The interface is documented in detail in the *Oracle Order Management Suite APIs and Open Interfaces Manual*
TRM	The tables, views, or modules are described in the product's Technical Reference Manual

Table 1–2 Oracle Order Management Suite APIs/Open Interfaces

Interface/API Name	Data Flow Direction	Table, View, Process, or Procedure	Iface Man	TRM	Table, View, Module Name, or Procedure Name
ONT	**ONT**	**ONT**	**ONT**	**ONT**	**ONT**
Order Import	Inbound	Table	Yes	Yes	OE_HEADERS_IFACE_ALL OE_LINES_IFACE_ALL OE_RESERVTNS_IFACE_ALL OE_CREDITS_IFACE_ALL OE_PRICE_ADJS_IFACE_ALL OE_LOTSERIALS_IFACE_ALL OE_ACTIONS_IFACE_ALL
Process Order	Inbound	Process	No	Yes	OE_ORDER_PUB.PROCESS_ORDER
QP	**QP**	**QP**	**QP**	**QP**	**QP**

Table 1–2 Oracle Order Management Suite APIs/Open Interfaces

Interface/API Name	Data Flow Direction	Table, View, Process, or Procedure	Iface Man	TRM	Table, View, Module Name, or Procedure Name
Agreement Public Application Program Interface	Inbound/Outbound	Procedure	Yes	Yes	OE_PRICING_CONT_PUB.PROCESS_AGREEMENT OE_PRICING_CONT_PUB.GET_AGREEMENT OE_PRICING_CONT_PUB.LOCK_AGREEMENT
Attribute Mapping Application Program Interface	Inbound/Outbound	Procedure	Yes	Yes	QP_ATTR_MAPPING_PUB.BUILD_CONTEXTS
Business Object for Modifier Setup Application Program Interface	Inbound/Outbound	Procedure	Yes	Yes	QP_MODIFIERS_PUB.PROCESS_MODIFIERS QP_MODIFIERS_PUB.GET_MODIFIERS QP_MODIFIERS_PUB.LOCK_MODIFIERS
Business Object for Pricing Formulas Application Program Interface	Inbound/Outbound	Procedure	Yes	Yes	QP_PRICE_FORMULA_PUB.LOCK_PRICE_FORMULA QP_PRICE_FORMULA_PUB.PROCESS_PRICE_FORMULA QP_PRICE_FORMULA_PUB.GET_PRICE_FORMULA
Business Object for Pricing Limits Application Program Interface	Inbound/Outbound	Procedure	Yes	Yes	QP_LIMITS_PUB.PROCESS_LIMITS QP_LIMITS_PUB.GET_LIMITS QP_LIMITS_PUB.LOCK_LIMITS
Get Currency Application Program Interface	Inbound/Outbound	Procedure	Yes	Yes	QP_GET_CURRENCY
Get Custom Price (Used in Formulas Setup) Application Program Interface	Inbound/Outbound	Procedure	Yes	Yes	QP_CUSTOM.GET_CUSTOM_PRICE
Get Price List Application Program Interface	Inbound/Outbound	Procedure	Yes	Yes	QP_GET_PRICE_LIST

Table 1–2 Oracle Order Management Suite APIs/Open Interfaces

Interface/API Name	Data Flow Direction	Table, View, Process, or Procedure	Iface Man	TRM	Table, View, Module Name, or Procedure Name
Multi-Currency Conversion Setup Application Program Interface	Inbound/Outbound	Procedure	Yes	Yes	QP_CURRENCY_PUB. PROCESS_CURRENCY
Price List Setup	Inbound/Outbound	Procedure	Yes	Yes	QP_PRICE_LIST_PUB.PROCESS_PRICE_LIST QP_PRICE_LIST_PUB.GET_PRICE_LIST QP_PRICE_LIST_PUB.LOCK_PRICE_LIST
Price List Setup Group Application Program Interface	Inbound/Outbound	Procedure	Yes	Yes	QP_PRICE_LIST_GRP.PROCESS_PRICE_LIST
Price Request Application Program Interface	Inbound/Outbound	Procedure	Yes	Yes	QP_PREQ_GRP.PRICE_REQUEST
Pricing Object Security CHECK_FUNCTION	Inbound/Outbound	Procedure	Yes	Yes	QP_SECU_VIEW QP_SECU_UPDATE
Qualifiers Application Program Interface	Inbound/Outbound	Procedure	Yes	Yes	QP_QUALIFIER_RULES_PUB.PROCESS_QUALIFIER_RULES QP_QUALIFIER_RULES_PUB.LOCK_QUALIFIER_RULES QP_QUALIFIER_RULES_PUB.GET_QUALIFIER_RULES QP_QUALIFIER_RULES_PUB.COPY_QUALIFIER_RULES
Reverse Limits Application Program Interface	Inbound/Outbound	Procedure	Yes	Yes	QP_UTIL_PUB
Round Price Application Program Interface	Inbound/Outbound	Procedure	Yes	Yes	QP_ROUND_PRICE

Table 1–2 Oracle Order Management Suite APIs/Open Interfaces

Interface/API Name	Data Flow Direction	Table, View, Process, or Procedure	Iface Man	TRM	Table, View, Module Name, or Procedure Name
Validate_Price_list_Curr_code Application Program Interface	Inbound/Outbound	Procedure	Yes	Yes	QP_VALIDATE_PRICE_LIST_CURR_CODE
RLM	**RLM**	**RLM**	**RLM**	**RLM**	**RLM**
RLM_INTERFACE_HEADERS	Inbound	Table	Yes	Yes	RLM_INTERFACE_HEADERS
RLM_INTERFACE_LINES	Inbound	Table	Yes	Yes	RLM_INTERFACE_LINES
WSH	**WSH**	**WSH**	**WSH**	**WSH**	**WSH**
Trip Public API	Inbound	Procedure	Yes	No	WSH_TRIPS_PUB (Procedure package)
Stop Public API	Inbound	Procedure	Yes	No	WSH_TRIP_STOPS_PUB (Procedure package)
Deliveries Public API	Inbound	Procedure	Yes	No	WSH_DELIVERIES_PUB (Procedure package)
Exceptions Public API	Inbound	Procedure	Yes	No	WSH_EXCEPTIONS_PUB (Procedure package)
Delivery Details Public API	Inbound	Procedure	Yes	No	WSH_DELIVERY_DETAILS_PUB (Procedure package)
Container Public API	Inbound	Procedure	Yes	No	WSH_CONTAINER_PUB (Procedure package)
Freight Costs Public API	Inbound	Procedure	Yes	No	WSH_FREIGHT_COSTS_PUB (Procedure package)

Inbound Open Interface Model

Oracle Order Management products provide both inbound and outbound interfaces. For inbound interfaces, where these products are the destination, interface tables as well as supporting validation, processing, and maintenance programs are provided. For outbound interfaces, where these products are the source, database views are provided and the destination application should provide the validation, processing, and maintenance programs.

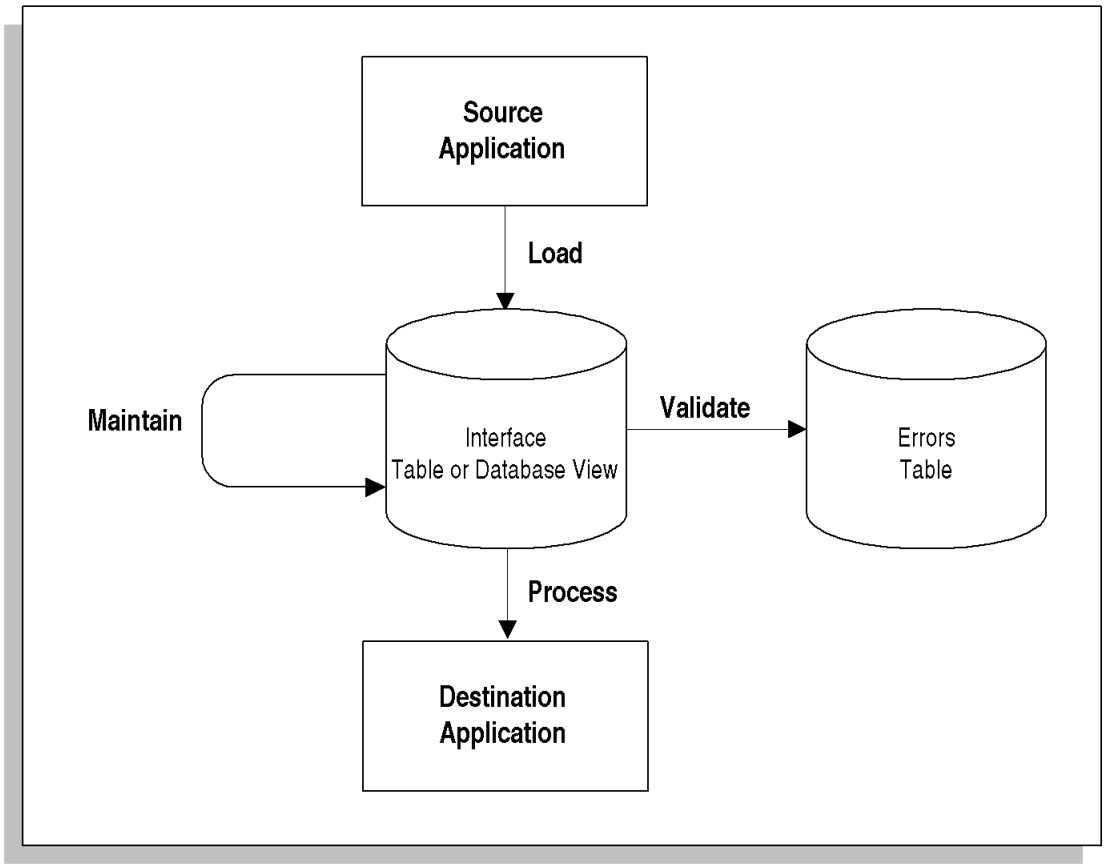
Discussion of Inbound Interfaces Only

In this manual, we discuss only inbound interfaces in detail. You can find information about the tables, views, and processes involved in outbound interfaces in the product's Technical Reference Manual. Note that the Technical Reference Manuals do *not* contain detailed, narrative discussions about the outbound interfaces.

Open Interface Diagram

The general model for open application interfaces is as follows:

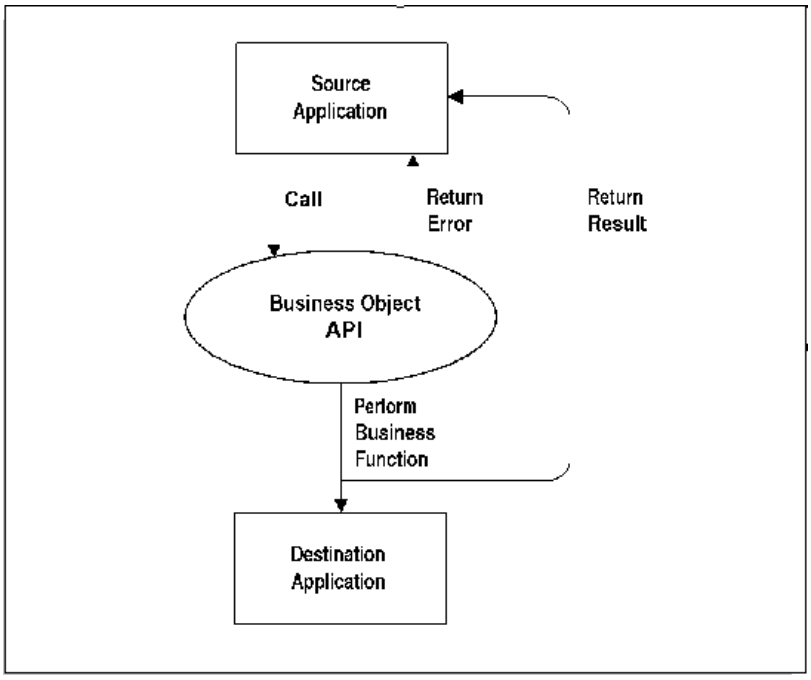
Figure 1–1 Open Interface Diagram



Open Application Programmatic Interface (API) Diagram

The model used by APIs such as the Service Request interfaces (Oracle Service) is as follows:

Figure 1–2 Open Application Programmatic Interface (API) Diagram



Components of an Open Interface

There are a number of components that are generally common to all open interfaces. These components are described below. However, all open interfaces do not include every component, and in some cases the component may be implemented slightly differently than described below.

Source Application

You obtain data from a source application to pass on to a destination application for further processing and/or storage. Typically the data has completed processing in the source application before being passed.

Oracle Applications products are the source for outbound interfaces.

Destination Application

You send data to a destination application so that the application can perform further processing and/or storage.

Oracle Order Management products are the destinations for inbound interfaces.

Interface Table

For inbound interfaces, the interface table is the intermediary table where the data from the source application temporarily resides until it is validated and processed into an Oracle Order Management product. The various types of interface columns,- are listed below:

Identifier Columns Identifier columns uniquely identify rows in the interface table and provide foreign key reference to both the source and destination applications. For example, typical identifier columns for a move transaction would identify:

- The source application
- The row's unique identifier in the source application
- The destination application's unique identifier.

Control Columns Control columns track the status of each row in the interface table as it is inserted, validated, errored, processed, and ultimately deleted. Additional control columns identify who last updated the row and the last update date.

Data Columns Data columns store the specific attributes that the source application is sending to the Oracle Order Management products.

Required Columns Required columns store the minimum information needed by the Oracle Order Management products to successfully process the interface row.

Some columns are conditionally required based on the specifics of the interface.

Derived Columns Derived columns are created by the destination product from information in the required columns.

Optional Columns Optional columns are not necessarily required by Oracle products but can be used for additional value-added functionality.

Errors Table

For inbound interfaces, the errors table stores all errors found by the validation and processing functions. In some cases, the errors table is a child of the interface table. This allows each row in the interface table to have many errors, so that you can manage multiple errors at once. In other cases, the errors are stored in a column within the interface table, which requires you to fix each error independently.

Database View

Database views are database objects that make data from the Oracle Order Management source products available for selection and use by destination applications.

Oracle Order Management products provide predefined views of key data that is likely to be used by destination applications.

For example, Oracle Cost Management provides work in process valuation and transaction distribution database views for use by other cost reporting destination products.

Load Function

For inbound interfaces, the load function is the set of programs that selects and accumulates data from the source application and inserts it into Oracle Order Management interface tables. The programming languages and tools used in the load function are highly dependent on the hardware and system software of the source application.

For example, if you are passing data between an Oracle based source application and an Oracle destination application, you would likely use a tool such as Pro*C or PL/SQL since these tools work in both environments. If you are bringing data from a non-Oracle based application into a product's interface table, you would likely use a procedural language available on the source application to select the data and convert it into an ASCII file. Then you could use SQL*Loader to insert that file into the destination product's interface table.

For outbound interfaces, the load function is the SQL that creates the database view.

Validate Function

The validate function is the set of programs that Oracle Applications destination products use to insure the integrity of inbound data. In the source application, you can typically validate data upon entry using techniques such as forms triggers, not

null columns, data types, and so on. However, since Oracle Applications products may not be the source of this data, validation programs ensure data integrity.

In addition, the validate function can derive additional columns based on the required columns and foreign key relationships with other data elsewhere in the Oracle destination application.

The validation programs check the interface table for rows requiring validation, then validate and update each row indicating either validation complete or errors found. If errors are found, validation programs need to write errors to the destination application's errors table or to the interface table's error column.

When an Oracle application product is the source product, the destination application should provide the validate function.

Process Function

The process function is a set of programs that processes the data from the interface table into the Oracle destination product. The specific processing performed varies by application. For open transaction interfaces, the processing generally includes recording transaction history, updating inventory and order balances, and charging costs.

Interfaces typically let you control both the frequency and the number of validated rows that the processing programs attempt to process. Upon successful completion of processing, the process function should delete the processed row from the interface table.

On occasion, the process function may need to insert rows into the errors table.

When an Oracle application product is the source, the destination application should provide the process function.

Maintain Function

The maintain function is generally accomplished from a window within an Oracle application. Most of these windows allow you to query, update, and resubmit interface records that have failed validation. You can generally use these windows to query unprocessed or unvalidated rows and check their current status.

In the case where there is no formal maintain function, you can use SQL*Plus to query and update the errored interface table rows.

When an Oracle application is the source application, the destination application should provide the maintain function.

2
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Integrating Oracle Order Management Using Order Import

Overview

Prior to this release, Order Management would analyze Order Import interface tables for related records to determine the optimum record processing order; the analysis used to occur each time the Order Import concurrent program was submitted. With this release of Order Management, the analysis of the Order Import interface tables no longer occurs for each submission of the Order Import concurrent program; you must manually submit the Order Import Statistics concurrent program prior to submitting the Order Import concurrent program if you wish to optimize interface record processing.

Order Import, like the rest of Oracle Applications 11*i*, uses the Cost Based Optimizer of the database for optimizing queries. The Cost Based Optimizer uses generated statistical information to optimize queries. The Order Import Statistics concurrent program gathers statistics that will be used by the cost based optimizer. This concurrent program should be run after data is populated into the interface tables.

See: Order Import Concurrent Program.

Order Import is an Order Management Open Interface that consists of open interface tables and a set of APIs. Order Import can import new, change, and completed sales orders or returns from other applications such as a legacy system. The orders may come from any source such as EDI transactions that are processed by the Oracle e-Commerce Gateway or internal orders created for internal requisitions developed in Oracle Purchasing or returns.

Order Import features include validation and defaulting, processing constraint checks, applying and releasing of order holds, scheduling of shipments, then ultimately inserting, updating or deleting the orders in the base Order Management tables. Order Management checks all the data during the import process to ensure its validity within Order Management. Valid transactions are then converted into orders with lines, reservations, price adjustments, and sales credits in the base Order Management tables.

You can use the Order Import Correction window to examine the order and optionally correct data if it fails the import process. You can use the Error Message window to determine if your data failed to import.

Each time you run Order Import, Order Management produces a summary of information letting you know of the total number of orders that Order Import evaluates, and succeeded or failed.

Prerequisites and Set-Up

Before using this program to import orders, you should:

- Set up every aspect of Order Management that you want to use with imported orders, including customers, pricing, items, and bills.
- Define and enable your Order Import sources using the Order Import Sources window.
- Determine if you should submit the Order Import Statistics concurrent program.

Order Management Parameters

The following Order Management parameter affects the operation of the Order Import program:

- *OM: Item Validation Organization*--Determines the organization used for validating items and bill of material structures.

Profile Options

- *OM: Reservation Time Fence*--This profile option controls automatic reservations during scheduling.
- *OM: Apply Automatic Attachments*--This profile option determines whether rule-based attachments are applied without user intervention.
- OM: Schedule Line on Hold-- This profile decides if Order Management scheduling should schedule lines that are on hold.
- OM: AutoSchedule-- This profile decides whether the order line should be automatically scheduled or not.
- OM: Authorized to Override ATP-- This profile provides the authorization to users to override the scheduling results.

Items and Bills

Order Management uses the same customer, item pricing, and bill attribute validation and logic for imported orders as for orders entered in the Sales Orders window.

You need to define items using Oracle Inventory for items to be orderable via Order Import. You also need to define bills of material in Oracle Bills of Material for models if you have any complex items that customers can order in various configurations.

Order Import provides the ability to import an item specified in the following supplier, customer or generic formats:

- Supplier Specific Internal Part number
- Customer Specific Item number
- Generic (depending on what you have set up in Oracle Inventory as cross-references):
  - CLEI (Common Language Equipment Identifier)
  - EAN (European Article Number) code
  - ISBN (International Standard Book Number)
  - JAN (Japanese Article Number) code
  - UPC (Universal Product code) code

Customer Relationships

Site Level Customers and Sites for Bill_To, Ship_To and Deliver_To will be validated based on the Customer Relationships profile.

This parameter has three setting:

Single Customer: Site Can only belong to the Sold to Customer. The Site level Customer cannot be different than the Sold to Customer.

Related Customers: Site Can only belong to the Sold to Customer or a Customer Related to the Sold To Customer . The Site level Customer can be different than the Sold to Customer but the relationship should exist between the site level customer and the Sold to Customer.

All Customers: Site Can only belong to the Sold to Customer or any other Customers. The Site level Customer can be different than the Sold to Customer and it is not required that relationship should exist between the site level customer and the Sold to Customer.

When checking for relationship we also check the appropriate usage in the Relationship also.

For example, customer "A" can be a valid related BillTO customer to Customer "B," only if the relationship exists and the bill_to_Flag is checked in the relationship.

Similarly for ShipTO and Deliver_to we check the Ship_To flag.

Defaulting Rules

You can setup your defaulting rules which allow you to default columns in the same way as for orders entered online. You can pass the column value Null to Order Import if you want the defaulting rules to populate the column. However, if the column is defined as Not Null or Mandatory column and the defaulting rules fail to default the column, for any reason, Order Import displays an error message without importing the order.

Transaction Sources

Importing from External Systems

You can import orders with any external source defined in the Define Document Sequences window.

> **Note:** You cannot specify a value in the DROP_SHIP column of the OE_HEADERS_IFACE_ALL. If you enter a value in this column, the Order Import concurrent program will fail.

Internal Sales Orders

Oracle Purchasing uses Order Import to transfer requisitions for internally sourced products to Order Management. Once imported, the internal sales orders are processed as regular sales orders.

Returns

Returns can be imported like a regular sales order. Order Management utilizes workflow activities to import returns.

Special Considerations for importing Return orders

Creation of a non-referenced RMA: ITo import a return order for a non referenced return, you must

- Populate all required attributes for creating a return order
- Use an order category of RETURN or MIXED for the Order Header record.
- Populate all required attributes for creating a return order lines.

- For Order Line Record, you cannot specify a value for the line category_ code column. You need to populate the column ordered_quantity with a negative value.
- Line_type _id is optional, provided a default line_type has been defined for the specified Order Type.)
- Additionally, you will need to populate the column reason_code for all return lines. Valid values are those values defined for the Order Management QuickCode *CREDIT_MEMO_REASON*.

Creation of a Referenced RMA (if you want to return an existing outbound line) If you create a referenced RMA, you should copy the Header Record for the return from the referenced Order header record, modifying the Order Type to category RETURN or MIXED (order_type_id from oe_transaction_types_all).

For the Order Line record, populate the following attributes only:

1. line_category_code: RETURN
2. return_context: ORDER
3. return_attribute1: header_id from the referenced order.
4. return_attribute2: line_id from the referenced order line.
5. calculate_price_flag: Set it to *P* if you want to retain the original price, the flag to *Y* if you want to reprice the RMA line.
6. line_type_id: Assign a line_type_id from RMA line. Line_type _id is optional, provided a default line_type has been defined for the specified Order Line Type.)
7. return_reason_code: Populate a reason code from lookup_type *CREDIT_ MEMO_REASON*
8. For sales credit info please populate the header_level/line level sales credits details from the referenced order.

Import Types

Configurations

Order Management provides you with the ability to import ATO and PTO configurations. For EDI orders, you can import valid and invalid configurations, however, you will not be able to book orders with invalid configurations.

Changes

You can import changes to orders that have been imported by passing all changed data through Order Import. You can update or delete orders, order lines, price adjustments, and sales credits. You can use change sequence numbers to control the sequence of changes you want to make to orders.

Order Status

You can import new, booked or closed orders. If an order is imported with an entry status of Booked (OE_HEADERS_IFACE_ALL.BOOKED_FLAG=Y) the result after import is that a Action Request of BOOK_ORDER is initiated. You may also pass the Action Request to BOOK_ORDER; both methods are supported.

Order Import ensures that all required fields for entry or booking are validated appropriately as the orders are imported. Order Import imports the order in as Entered and attempts to book it. If any of the required fields for a booked order are not supplied, Order Management retains the order in the Entered status and notifies you of the error.

Line Sets

You can import grouped order lines, called sets, based on certain common attributes for a new or existing order. You can also add a line to an existing set. You will need to provide the set ID or name in the Order Import tables. If that set already exists, the line will be included in the set. However, if the set does not already exist, a new set will be created and the line will be added to the set. In addition, if any line attribute, which is also a set attribute, does not match with the set attribute value, the set attribute value will overwrite the line attribute.

Workflows

You can import an order within any valid order workflow activity. The order must be at the initial activity of Entered, Booked, or Closed. Orders imported using Order Import cannot be in the middle of a workflow activity.

Data Values and Options

Manual and Automatic Pricing

You can indicate whether you want to manually enter prices for imported orders or allow Order Management to automatically price the order. You can use automatic pricing or manual pricing for your imported orders. If you want to use automatic pricing, you should set the column OE_LINES_INTERFACE.CALCULATE_PRICE_FLAG to Y, and define all your pricing setup including discounts, promotions,

surcharges, free goods, etc. in Oracle Pricing and Order Management. However, if you want to use the manual pricing, you should set the column OE_ LINES_ INTERFACE.CALCULATE_PRICE_FLAG to N. In this case, you should define all your discounts as line level, overridable, and not automatic.

Note: Order Import does not support the importing of free goods, promotions, and other item discounts for manual pricing.

Pricing Agreements

You can specify an agreement name if you want to order against a specific customer agreement for an order or order line.

Scheduling

Order Import allows you to reserve orders as they are imported, using the same rules as online order entry. If the scheduling request is unsuccessful on an imported order, the order will still be imported, and the scheduling exceptions can be viewed in the Error Messages of the Order Import Corrections window. You can use Schedule, Unschedule, Reserve or Unreserve as values for scheduling actions.

To override the line, Schedule Ship Date or Arrival Date has to be populated on the line record. The dates populated are based on the Ordered Date Type. If the Ordered Date Type is 'Ship' then populate the ship date otherwise populate the Arrival Date.

Validations

Process Order Interface (API)

The Process Order Interface is the central application process interface (API) provided by Order Management to perform all common operations such as inserting, updating, deleting, and validating an order or order line. The API also performs the scheduling and returns a promise date. This API is called by Order Import.

Order Import passes one order, with all lines and other entities, at a time to the Process Order Interface, along with the operations that need to be completed on the order or line such as, inserting or updating an order or line. Errors at any line or entity level will cause the order to fail the importing of the entire order. In addition, Order Import processes only those orders and lines which are not rejected and do not have the ERROR_FLAG column set to Y from previous processes.

Attachments

Order Management applies any automatic attachments to imported orders that meet your automatic note criteria based on the setting of the *OM: Apply Automatic Attachments* profile option.

Credit Checking

Order Management performs credit checking on all imported orders or changes, according to the credit checking rules you have defined in Order Management.

Defaulting Rules

You can pass the column value Null to Order Import if you want the defaulting rules to populate the column. However, if the column is defined as Not Null or Mandatory column and the defaulting rules fail to default the column, for any reason, Order Import displays an error message without importing the order.

Holds and Releases

Order Management automatically applies all holds to imported orders and order lines that meet hold criteria. Order Import allows you to apply holds on imported orders for review, just as you would for orders entered through the Sales Orders window. You can also apply holds or release holds using the actions interface table.

Price Comparisons

Order Import performs a price comparison on your imported orders. For example, if you provide a selling price and also want the system to calculate a price, Order Import warns you of the differences, if any, between the two prices as discrepancies. The warning can be viewed in the Error Message window of the Order Import Corrections window.

If there is a difference between your selling price and the system calculated price, Order Import raises a warning of the difference. Order Import saves your customer-provided value for the selling price in a column on the order line table, so you can have visibility to what your customer sent in.

Note: You cannot copy or interface an order line having a price list with a currency code different from the existing or newly created order header's currency code. An error message will be displayed in the Process Messages window

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Payment Term Comparison

Order Import performs payment term comparisons. If there is a difference between your payment terms, Order Import raises a warning of the difference. Order Import saves your customer-provided value for payment terms in a column on the order line table so that you can have visibility to what your customer sent in.

Processing Constraints

Order Import checks the processing constraints you have defined in Order Management to assure that any operation such as insert, update, and delete are acceptable by your security standards. Order Import displays an error message if it encounters a processing constraint that has been violated.

Corrected Data

Once the data is corrected, the ERROR_FLAG for the record is updated to N. You can set the REJECT_FLAG to Y for headers and line in case your data cannot be corrected by using the Order Import Corrections window.

Order Import Statistic Concurrent Program

The Order Import Statistics concurrent program performs a table analysis of all interface tables related to Order Import for determining optimum record processing should the Order Import concurrent program be submitted. You can choose to submit this program (or not) prior to each submission of the Order Import concurrent program. If you normally process a similar number of interface records, you typically do not need to submit this program prior to submitting the Order Import concurrent program.

There are no parameters for the submission of the Order Import Statistics concurrent program. See: *Oracle Order Management User's Guide*, Order Import Statistics Concurrent Program

Request Submission

You can submit a request by selecting Order Import Request. You can run the Order Import process in the validation-only mode.

This mode allows the transaction to be validated against all the Order Management rules but not pass valid transactions to the base Order Management tables. If you choose you can run production transactions in validation-only mode for a preview of exceptions. Make necessary corrections to the transactions in the Order Import window, then choose the Validate button to perform a validation check. The validation-only mode may also facilitate testing of transactions through Order

Import even in a production environment to take advantage of all the setup is the production environment.

Parameters

The Order Import program provides the following parameters:

- Order Source

  Choose a specific Order Import source that you have defined in the Order Import Sources window so that only records with that source are processed, or leave this parameter blank so that all enabled sources are processed for data existing in the interface tables.

- Order References

  You can enter the System Document Reference if you want to run Order Import for a specific order.

- Validate Only (Yes/No)

  Choose whether to validate only the data in the interface tables. If Yes, the order will be validated, but not imported into the base orders tables. The default value is No.

Order Import window

The Order Import window consists of the Find and Summary windows. The Find window allows you to find orders to be imported based on certain attributes such as Request ID, Order Source, Original System, Document Reference, and Change Sequence.

The Summary windows displays order headers, lines, sales credits, price adjustments, lot serials, reservations and action requests information. You have the ability to remove columns from the folder.

The Order Import window displays all orders or selected orders based on the criteria given in the Find window. You can modify the orders here. The orders that have errors display in red.

You can insert, update, and delete the orders and lines in the interface tables. You can update one or multiple orders or lines at the same time through the Summary window. You can also mark an order or a line to be rejected by setting the REJECTED flag. There are separate windows for the header and line level data. These windows have related fields grouped as tabs.

Buttons

- *Lines:* Displays line level information for orders.
- *Discounts*: Displays discount information for orders.
- *Validate*: Validates the data but does not import it. Only the selected orders will be validated and performed online.
- *Import*: Imports the orders. The data is validated before being imported. If an error is encountered while importing, the order will be rejected and the error messages can be viewed by choosing the Errors button. Only the selected orders will be imported and the import is performed online. If an order is successfully imported, it also gets deleted from the interface tables. If you attempt to re-query the window, you will not be able to view that order in the Order Import Corrections window.
- *Errors*: Displays all the errors encountered while importing. The error messages are stored context sensitive. If you choose the Errors button from the Order Headers region, all the errors for that order are displayed. If you choose the Errors button from the Lines region, all the errors are displayed for that line. If you encountered errors while importing orders, you can also fix these errors in the window and try importing the order again. You can navigate from the Errors window to the Order Headers or Lines region where the error has occurred.
- *Actions*: Displays order actions for orders.
- *Sales Credits*: Displays sales credit information for orders.
- *Add Customer*: To add new Customer and Address during the Import process.
- *Pricing Attributes*: To add Pricing Attributes for Order/Line.

Processing Results

Each time you run Order Import, Order Management automatically generates an Order Import processing results summary log which identifies the total number of successful and failed imported orders.

Oracle Order Management Interface Tables and Column Descriptions

Order Import uses the following interface tables during processing:

OE_CUSTOMER_INFO_IFACE_ALL

OE_HEADERS_IFACE_ALL

OE_LINES_IFACE_ALL

OE_PRICE_ADJS_IFACE_ALL

OE_PRICE_ATTS_IFACE_ALL

OE_CREDITS_IFACE_ALL

OE_LOTSERIALS_IFACE_ALL

OE_RESERVTNS_IFACE_ALL

OE_ACTIONS_IFACE_ALL

A table listing for each interface table is provided, and additional details on Order Management database tables, see Oracle eTRM. Oracle eTRM is available hosted on Oracle Metalink.

Table 2–1 OE_CUSTOMER_INFO_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
CUSTOMER_INFO_REF	VARCHAR2(50)	Yes			
CURRENT_CUSTOMER_ NUMBER	NUMBER	Yes, if Customer_ info_Type_Code is 'ADDRESS' or 'CONTACT' and the corresponding customer exists already either Current_Customer_ Number or Current_ Customer_Id should be populated. **It must not be populated if the corresponding customer is being created simultaneously.**			
CURRENT_CUSTOMER_ ID	NUMBER	Yes, if Customer_ info_Type_Code is 'ADDRESS' or 'CONTACT' and the corresponding customer exists already either Current_Customer_ Number or Current_ Customer_Id should be populated. **It must not be populated if the corresponding customer is being created simultaneously.**			
CUSTOMER_TYPE	VARCHAR2(30)	No (Default value of 'ORGANIZATION' will be used			
CUSTOMER_INFO_ TYPE_CODE	VARCHAR2(10)	Yes			

Table 2–1 OE_CUSTOMER_INFO_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
PARENT_CUSTOMER_REF	VARCHAR2(50)	Yes, if the corresponding customer is being created simultaneously			
ORGANIZATION_NAME	VARCHAR2(30)	Yes, if Customer_Info_Type_Code is 'ACCOUNT' and Customer_Type is 'ORGANIZATION'			
PERSON_FIRST_NAME	VARCHAR2(150)	Yes, if Customer_Type_Code is 'ADDRESS' and Customer_Type is 'PERSON'			
PERSON_MIDDLE_NAME	VARCHAR2(60)				
PERSON_LAST_NAME	VARCHAR2(150)	Yes, if Customer_Type is 'PERSON'			
PERSON_NAME_SUFFIX	VARCHAR2(30)				
PERSON_TITLE	VARCHAR2(60)				
CUSTOMER_NUMBER	NUMBER	Populate only if Customer_info_Type_Code is 'ACCOUNT' and automatic numbering is not set to occur in Accounts Receivable.			
EMAIL_ADDRESS	VARCHAR2(2000)	Yes, if OM's profile option OM: Email Required On New Customer is set to 'Yes' and Customer_Info_Type_Code is 'ACCOUNT'			

Table 2–1 OE_CUSTOMER_INFO_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
PARTY_NUMBER	VARCHAR2(30)	Yes, if Customer_ Info_Type_Code is 'ACCOUNT' and the customer should be added to an existing party, populate tis field with that party_number. **Must be left null to create a new party for the new customer.**			
PHONE_COUNTRY_ CODE	VARCHAR2(10)				
PHONE_AREA_CODE	VARCHAR2(10)				
PHONE_NUMBER	VARCHAR2(40)				
PHONE_EXTENSION	VARCHAR2(20)				
COUNTRY	VARCHAR2(60)	Yes, if Customer_ Info_Type_Code is 'ADDRESS'			
ADDRESS1...ADDRESS4	VARCHAR2(240)	Yes, if Customer_ Info_Type_Code is 'ADDRESS'			
CITY	VARCHAR2(60)	Yes, if Customer_ Info_Type_Code is 'ADDRESS'			
POSTAL_CODE	VARCHAR2(60)	Yes, if Customer_ Info_Type_Code is 'ADDRESS'			
STATE	VARCHAR2(60)	Yes, if Customer_ Info_Type_Code is 'ADDRESS'			
PROVINCE	VARCHAR2(60)				
COUNTY	VARCHAR2(60)				

Table 2–1 OE_CUSTOMER_INFO_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
IS_SHIP_TO_ADDRESS	VARCHAR2(1)	Yes, if Customer_ Info_Type_Code is 'ADDRESS' and entering Ship To Address			
IS_BILL_TO_ADDRESS	VARCHAR2(1)	Yes, if Customer_ Info_Type_Code is 'ADDRESS' and entering Bill To Address			
IS_DELIVER_TO_ ADDRESS	VARCHAR2(1)	Yes, if Customer_ Info_Type_Code is 'ADDRESS' and entering Deliver To Address			
SITE_NUMBER	VARCHAR2(80)	Yes, if Customer_ Info_Type_Code is 'ADDRESS' and the customer should be added to an existing site, populate this field with that site_ number.			
LOCATION_NUMBER	VARCHAR2(40)				
NEW_PARTY_ID	NUMBER	**internal use only**			
NEW_PARTY_NUMBER	NUMBER	**internal use only**			
NEW_ACCOUNT_ID	NUMBER	**internal use only**			
NEW_ACCOUNT_ NUMBER	NUMBER	**internal use only**			
NEW_CONTACT_ID	NUMBER	**internal use only**			
NEW_ADDRESS_ID_SHIP	NUMBER	**internal use only**			
NEW_ADDRESS_ID_BILL	NUMBER	**internal use only**			
NEW_ADDRESS_ID_ DELIVER	NUMBER	**internal use only**			

Table 2–1 OE_CUSTOMER_INFO_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
ATTRIBUTE_CATEGORY	VARCHAR2(30)				
ATTRIBUTE1...24	VARCHAR2(150)				
GLOBAL_ATTRIBUTE_ CATEGORY	VARCHAR2(30)				
GLOBAL_ATTRIBUTE1. ..GLOBAL_ATTRIBUTE20	VARCHAR2(150)				
CREATION_DATE	DATE				
CREATED_BY	NUMBER				
LAST_UPDATE_DATE	DATE				
LAST_UPDATED_BY	NUMBER				
LAST_UPDATE_LOGIN	NUMBER				
REQUEST_ID	NUMBER				
ERROR_FLAG	VARCHAR2(1				
REJECTED_FLAG	VARCHAR2(1)				
ORG_ID	NUMBER				

Table 2–2 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
ORDER_SOURCE_ID	NUMBER	C			
ORIG_SYS_DOCUMENT_ REF	VARCHAR2(50)	REQUIRED			
CHANGE_SEQUENCE	VARCHAR2(50)				X
CHANGE_REQUEST_ CODE	VARCHAR2(30)				X
ORDER_SOURCE	VARCHAR2(30)	C			
ORG_ID	NUMBER			X	

Table 2–2 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
HEADER_ID	NUMBER			X	
ORDER_NUMBER	NUMBER			X	
VERSION_NUMBER	NUMBER				X
ORDERED_DATE	DATE			X	
ORDER_CATEGORY	VARCHAR2(30)				
ORDER_TYPE_ID	NUMBER	C			
ORDER_TYPE	VARCHAR2(30)	C			
PRICE_LIST_ID	NUMBER		C		
PRICE_LIST	VARCHAR2(30)		C		
CONVERSION_RATE	NUMBER	C			
CONVERSION_RATE_ DATE	DATE	C			
CONVERSION_TYPE_ CODE	VARCHAR2(30)	C			
CONVERSION_TYPE	VARCHAR2(30)	C			
TRANSACTIONAL_ CURR_CODE	VARCHAR2(15)			X	
TRANSACTIONAL_ CURR	VARCHAR2(30)			X	
SALESREP_ID	NUMBER		X		
SALESREP	VARCHAR2(30)		X		
SALES_CHANNEL_ CODE	VARCHAR2(30)				X
RETURN_REASON_ CODE	VARCHAR2(30)	C			
TAX_POINT_CODE	VARCHAR2(30)	**For future use only**			
TAX_POINT	VARCHAR2(30)				X
TAX_EXEMPT_FLAG	VARCHAR2(30)				X

Table 2–2 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
TAX_EXEMPT_NUMBER	VARCHAR2(50)				X
TAX_EXEMPT_REASON_ CODE	VARCHAR2(30)	C			
TAX_EXEMPT_REASON	VARCHAR2(30)	C			
AGREEMENT_ID	NUMBER				X
AGREEMENT	VARCHAR2(50)				X
INVOICING_RULE_ID	NUMBER		X		
INVOICING_RULE	VARCHAR2(30)		X		
ACCOUNTING_RULE_ID	NUMBER		X		
ACCOUNTING_RULE	VARCHAR2(30)		X		
PAYMENT_TERM_ID	NUMBER		X		
PAYMENT_TERM	VARCHAR2(30)		X		
DEMAND_CLASS_CODE	VARCHAR2(30)				X
DEMAND_CLASS	VARCHAR2(30)				X
SHIPMENT_PRIORITY_ CODE	VARCHAR2(30)				X
SHIPMENT_PRIORITY	VARCHAR2(30)				X
SHIPPING_METHOD_ CODE	VARCHAR2(30)				X
SHIPPING_METHOD	VARCHAR2(30				X
FREIGHT_CARRIER_ CODE	VARCHAR2(30)				X
FREIGHT_TERMS_CODE	VARCHAR2(30)				X
FREIGHT_TERMS	VARCHAR2(30)				X
FOB_POINT_CODE	VARCHAR2(30)				X
FOB_POINT	VARCHAR2(30)				X
PARTIAL_SHIPMENTS_ ALLOWED	VARCHAR2(1)				X

Table 2–2 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
SHIP_TOLERANCE_ ABOVE	NUMBER				X
SHIP_TOLERANCE_ BELOW	NUMBER				X
SHIPPING_ INSTRUCTIONS	VARCHAR2(240)				X
PACKING_ INSTRUCTIONS	VARCHAR2(240)				X
ORDER_DATE_TYPE_ CODE	VARCHAR2(30)				X
EARLIEST_SCHEDULE_ LIMIT	NUMBER			X	
LATEST_SCHEDULE_ LIMIT	NUMBER			X	
CUSTOMER_PO_ NUMBER	VARCHAR2(50)				X
CUSTOMER_PAYMENT_ TERM_ID					
CUSTOMER_PAYMENT_ TERM					
PAYMENT_TYPE_CODE	VARCHAR2(30)				X
PAYMENT_AMOUNT	NUMBER				X
CHECK_NUMBER	VARCHAR2(50)				X
CREDIT_CARD_CODE	VARCHAR2(30)				X
CREDIT_CARD_ HOLDER_NAME	VARCHAR2(50)				X
CREDIT_CARD_ NUMBER	VARCHAR2(50)				X
CREDIT_CARD_ EXPIRATION_DATE	DATE				X

Table 2–2 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
CREDIT_CARD_ APPROVAL_CODE	VARCHAR2(50)				X
SOLD_FROM_ORG_ID	NUMBER		C		
SOLD_FROM_ORG	VARCHAR2(30)		C		
SOLD_TO_ORG_ID	NUMBER		C		
SOLD_TO_ORG	VARCHAR2(30)		C		
SHIP_FROM_ORG_ID	NUMBER				X
SHIP_FROM_ORG	VARCHAR2(30)				X
SHIP_TO_ORG_ID	NUMBER				X
SHIP_TO_ORG	VARCHAR2(30)				X
INVOICE_TO_ORG_ID	NUMBER				X
INVOICE_TO_ORG	VARCHAR2(30)				X
DELIVER_TO_ORG_ID	NUMBER				X
DELIVER_TO_ORG	VARCHAR2(30)			X	
DELIVER_TO_ CUSTOMER_NUMBER	VARCHAR2(30)			X	
DELIVER_TO_ CUSTOMER	VARCHAR2(30)			X	
SOLD_TO_CONTACT_ID	NUMBER				X
SOLD_TO_CONTACT	VARCHAR2(30)				X
SHIP_TO_CONTACT_ID	NUMBER				X
SHIP_TO_CONTACT	VARCHAR2(30)				X
INVOICE_TO_ CONTACT_ID	NUMBER				X
INVOICE_TO_CONTACT	VARCHAR2(30)				X
DELIVER_TO_ CONTACT_ID	NUMBER				X
DELIVER_TO_CONTACT	VARCHAR2(30)				X

Table 2–2 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
CUSTOMER_ID	NUMBER				X
CUSTOMER_NAME	VARCHAR2(30)		C		
SHIPMENT_PRIORITY_ CODE_INT	VARCHAR2(30)				X
SHIP_TO_ADDRESS1	VARCHAR2(30)		C		
SHIP_TO_ADDRESS2	VARCHAR2(30)		C		
SHIP_TO_ADDRESS3	VARCHAR2(30)		C		
SHIP_TO_ADDRESS4	VARCHAR2(30)		C		
SHIP_TO_CITY	VARCHAR2(30)		C		
SHIP_TO_CONTACT_ FIRST_NAME	VARCHAR2(30)				X
SHIP_TO_CONTACT_ LAST_NAME	VARCHAR2(30)				X
SHIP_TO_COUNTY	VARCHAR2(30)		C		
SHIP_TO_CUSTOMER	VARCHAR2(30)		C		
SHIP_TO_CUSTOMER_ NUMBER	VARCHAR2(30)		C		
SHIP_TO_POSTAL_CODE	VARCHAR2(30)		C		
SHIP_TO_PROVINCE	VARCHAR2(30)		C		
SHIP_TO_SITE_INT	VARCHAR2(30)			X	
SHIP_TO_STATE	VARCHAR2(30)		C		
SHIP_TO_COUNTRY	VARCHAR2(30)		C		
INVOICE_ADDRESS1	VARCHAR2(35)		C		
INVOICE_ADDRESS2	VARCHAR2(35)		C		
INVOICE_ADDRESS3	VARCHAR2(35)		C		
INVOICE_ADDRESS4	VARCHAR2(35)		C		
INVOICE_CITY	VARCHAR2(30)		C		

Table 2–2 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
INVOICE_COUNTRY	VARCHAR2(20)		C		
INVOICE_COUNTY	VARCHAR2(25)		C		
INVOICE_CUSTOMER	VARCHAR2(60)		C		
INVOICE_CUSTOMER_ NUMBER	VARCHAR2(30)		C		
INVOICE_POSTAL_ CODE	VARCHAR2(15)		C		
INVOICE_PROVINCE_ INT	VARCHAR2(30)		C		
INVOICE_SITE	VARCHAR2(30)			X	
INVOICE_SITE_CODE	VARCHAR2(30)			X	
INVOICE_STATE	VARCHAR2(30)		C		
INVOICE_TO_ CONTACT_FIRST_NAME	VARCHAR2(30)				X
INVOICE_TO_ CONTACT_LAST_NAME	VARCHAR2(30)				X
ORDERED_BY_ CONTACT_FIRST_NAME	VARCHAR2(30)				X
ORDERED_BY_ CONTACT_LAST_NAME	VARCHAR2(30)				X
DROP_SHIP_FLAG	VARCHAR2(1)				X
BOOKED_FLAG	VARCHAR2(1)				X
CLOSED_FLAG	VARCHAR2(1)				X
CANCELLED_FLAG	VARCHAR2(1)				X
REJECTED_FLAG	VARCHAR2(1)				X
CONTEXT	VARCHAR2(30)				X
ATTRIBUTE1..15	VARCHAR2(240)				X
HEADER_PO_CONTEXT	VARCHAR2(30)				X

Table 2–2 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
PO_ATTRIBUTE_1..15	VARCHAR2(240)				X
PO_REVISION_DATE	DATE				X
GLOBAL_ATTRIBUTE_ CATEGORY	VARCHAR2(30)				X
GLOBAL_ ATTRIBUTE1..20	VARCHAR2(240)				X
CREATED_BY	NUMBER	REQUIRED			
CREATION_DATE	DATE	REQUIRED			
LAST_UPDATED_BY	NUMBER	REQUIRED			
LAST_UPDATE_DATE	DATE	REQUIRED			
LAST_UPDATE_LOGIN	NUMBER				X
PROGRAM_ APPLICATION_ID	NUMBER				X
PROGRAM_ID	NUMBER				X
PROGRAM_UPDATE_ DATE	DATE				X
REQUEST_ID	NUMBER			X	
REQUEST_DATE	DATE			X	
SUBMISSION_DATETIME	DATE				X
OPERATION_CODE	VARCHAR2(30)	REQUIRED			
ERROR_FLAG	VARCHAR2(1)				X
READY_FLAG	VARCHAR2(1)				X
STATUS_FLAG	VARCHAR2(1)				X
FORCE_APPLY_FLAG	VARCHAR2(1)				X
CHANGE_REASON	VARCHAR2(30)				X
CHANGE_COMMENTS	VARCHAR2(200)				X
TP_CONTEXT	VARCHAR2(30)				X

Table 2–2 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
TP_ATTRIBUTE1..15	VARCHAR2(240)				X
BLANKET_NUMBER	NUMBER				
ORIG_SYS_CUSTOMER_ REF	Varchar2(50)	Yes, if the customer is being created as Sold To for the order being imported			
ORIG_SHIP_ADDRESS_ REF	Varchar2(50)	Yes, if Ship_To Address is being added for a customer.			
ORIG_BILL_ADDRESS_ REF	Varchar2(50)	Yes, if Bill_To Address is being added for a customer			
ORIG_DELIVER_ ADDRESS_REF	Varchar2(50)	Yes, if Deliver_To Address is being added for a customer			
SOLD_TO_CONTACT_ REF	Varchar2(50)	Yes, if Sold_To_ Contact is being added for a customer			
SHIP_TO_CONTACT_REF	Varchar2(50)	Yes, if Ship_To_ Contact is being added for a customer			
BILL_TO_CONTACT_REF	Varchar2(50)	Yes, if Bill_To_ Contact is being added for a customer			

Table 2–2 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
DELIVER_TO_ CONTACT_REF	Varchar2(50)	Yes, if Deliver_To_ Contact is being added for a customer			
XML_MESSAGE_ID					
XML_TRANSACTION_ TYPE_CODE					

OE_HEADERS_IFACE_ALL Derived Values

- TRANSACTIONAL_CURR_CODE = FND_CURRENCIES.CURRENCY_CODE
- SOLD_FROM_ORG_ID = HR_ALL_ORGANIZATION_ UNITS.ORGANIZATION_ID
- ACCOUNTING_RULE_ID = RA_RULES.RULE_ID
- INVOICING_RULE_ID = RA_RULES.RULE_ID
- SALESREP_ID = RA_SALESREPS_ALL.SALESREP_ID
- SALESREP = RA_SALESREPS_ALL.NAME
- PAYMENT_TERM_ID = RA_TERMS_B.TERM_ID
- CUSTOMER_PAYMENT_TERM_ID = RA_TERMS_B.TERM_ID
- PAYMENT_TERM = RA_TERMS_TL.NAME
- CUSTOMER_PAYMENT_TERM = RA_TERMS_TL.NAME
- AGREEMENT_ID = OE_AGREEMENTS_B.AGREEMENT_ID
- ORDER_SOURCE_ID = OE_ORDER_SOURCES.ORDER_SOURCE_ID
- HEADER_ID = OE_ORDER_HEADERS_ALL.HEADER_ID
- PRICE_LIST_ID = QP_LIST_HEADERS_TL.LIST_HEADER_ID
- PRICE_LIST = QP_LIST_HEADERS_TL.NAME

Table 2–3 OE_HEADERS_IFACE_ALL Conditional Settings

Column Name	Conditional Setting requirement
ORDER_SOURCE_ID ORDER_SOURCE	Condition is that either one of the columns should be populated
ORDER_TYPE_ID ORDER_TYPE	Condition is that either one of the columns should be populated
CONVERSION_RATE CONVERSION_RATE_DATE	Condition is that either one of the columns should be populated
CONVERSION_TYPE_CODE CONVERSION_TYPE	Condition is that either one of the columns should be populated
TAX_EXEMPT_REASON_CODE TAX_EXEMPT_REASON	Condition is that either one of the columns should be populated
RETURN_REASON_CODE	Required for returns ***only***
PRICE_LIST_ID PRICE_LIST	Condition is that either one of the columns should be populated
SOLD_FROM_ORG_ID SOLD_FROM_ORG	Condition is that either one of the columns should be populated
SOLD_TO_ORG_ID SOLD_TO_ORG CUSTOMER_NAME	Condition is that one of the columns should be populated

Table 2–3 OE_HEADERS_IFACE_ALL Conditional Settings

Column Name	Conditional Setting requirement
SHIP_TO_ADDRESS1..4 SHIP_TO_CITY SHIP_TO_COUNTY SHIP_TO_CUSTOMER SHIP_TO_CUSTOMER_NUMBER SHIP_TO_POSTAL_CODE SHIP_TO_PROVINCE SHIP_TO_SITE_INT SHIP_TO_STATE SHIP_TO_COUNTRY	These columns or *Ship_to_Org_id* should be provided
INVOICE_ADDRESS1..4 INVOICE_CITY INVOICE_COUNTRY INVOICE_COUNTY INVOICE_CUSTOMER INVOICE_CUSTOMER_NUMBER INVOICE_POSTAL_CODE INVOICE_PROVINCE_INT INVOICE_STATE	These columns or *Invoice_To_Org_id* should be provided.
DELIVER_TO_ADDRESS1..4 DELIVER_TO_CITY DELIVER_TO_COUNTRY DELIVER_TO_COUNTY DELIVER_TO_CUSTOMER DELIVER_TO_CUSTOMER_NUMBER DELIVER_TO_POSTAL_CODE DELIVER_TO_PROVINCE_INT DELIVER_TO_STATE	These columns or *Deliver_To_Org_id* should be provided.

Table 2–4 OE_LINES_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
ORDER_SOURCE_ID	NUMBER	REQUIRED			
ORIG_SYS_DOCUMENT_ REF	VARCHAR2(50)	REQUIRED			
ORIG_SYS_LINE_REF	VARCHAR2(50)	REQUIRED			
ORIG_SYS_SHIPMENT_REF	VARCHAR2(50)	REQUIRED			
CHANGE_SEQUENCE	VARCHAR2(50)				X
CHANGE_REQUEST_CODE	VARCHAR2(30)				X
ORG_ID	NUMBER			X	
LINE_NUMBER	NUMBER			X	
SHIPMENT_NUMBER	NUMBER			X	
LINE_ID	NUMBER			X	
SPLIT_FROM_LINE_ID	NUMBER				X
LINE_TYPE_ID	NUMBER			X	
LINE_TYPE	VARCHAR2(30)			X	
ITEM_TYPE_CODE	VARCHAR2(30)			X	X
INVENTORY_ITEM_ID	NUMBER	C			
INVENTORY_ITEM	VARCHAR2(30)	REQUIRED			
TOP_MODEL_LINE_REF	VARCHAR2(50)	C			
LINK_TO_LINE_REF	VARCHAR2(50)	C			
EXPLOSION_DATE	DATE			X	
ATO_LINE_ID	NUMBER			X	
COMPONENT_ SEQUENCE_ID	NUMBER			X	
COMPONENT_CODE	VARCHAR2(50)			X	X
SORT_ORDER	VARCHAR2(240)			X	
MODEL_GROUP_NUMBER	NUMBER			X	

Table 2–4 OE_LINES_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
OPTION_NUMBER	NUMBER			X	
OPTION_FLAG	VARCHAR2(1)				X
SHIP_MODEL_COMPLETE_FLAG	VARCHAR2(1)			X	
SOURCE_TYPE_CODE	VARCHAR2(30)				X
SCHEDULE_STATUS_CODE	VARCHAR2(30)		C		
SCHEDULE_SHIP_DATE	DATE		C		
SCHEDULE_ARRIVAL_DATE	DATE		C		
ACTUAL_ARRIVAL_DATE	DATE				X
REQUEST_DATE	DATE	REQUIRED			
PROMISE_DATE	DATE		C		X
SCHEDULE_DATE	DATE				X
DELIVERY_LEAD_TIME	NUMBER	REQUIRED			
DELIVERY_ID	NUMBER	REQUIRED			
ORDERED_QUANTITY	NUMBER	REQUIRED			
ORDER_QUANTITY_UOM	VARCHAR2(3)	REQUIRED			
SHIPPING_QUANTITY	NUMBER	C			
SHIPPING_QUANTITY_UOM	VARCHAR2(3)	C			
SHIPPED_QUANTITY	NUMBER	C			
CANCELLED_QUANTITY	NUMBER	C			
FULFILLED_QUANTITY	NUMBER	C			
PRICING_QUANTITY	NUMBER	C			
PRICING_QUANTITY_UOM	VARCHAR2(3)	C			
SOLD_FROM_ORG_ID	NUMBER		C		

Table 2–4 OE_LINES_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
SOLD_FROM_ORG	VARCHAR2(30)		C		
SOLD_TO_ORG_ID	NUMBER		C		
SOLD_TO_ORG	VARCHAR2(30)		C		
SHIP_FROM_ORG_ID	NUMBER				X
SHIP_FROM_ORG	VARCHAR2(30)				X
SHIP_TO_ORG_ID	NUMBER				X
SHIP_TO_ORG	VARCHAR2(30)				X
DELIVER_TO_ORG_ID	NUMBER			X	
DELIVER_TO_ORG	VARCHAR2(30)			X	
INVOICE_TO_ORG_ID	NUMBER		C		
INVOICE_TO_ORG	VARCHAR2(30)		C		
SHIP_TO_ADDRESS1	VARCHAR2(30)		C		
SHIP_TO_ADDRESS2	VARCHAR2(30)		C		
SHIP_TO_ADDRESS3	VARCHAR2(30)		C		
SHIP_TO_ADDRESS4	VARCHAR2(30)		C		
SHIP_TO_CITY	VARCHAR2(30)		C		
SHIP_TO_COUNTY	VARCHAR2(30)		C		
SHIP_TO_STATE	VARCHAR2(30)		C		
SHIP_TO_POSTAL_CODE	VARCHAR2(30)		C		
SHIP_TO_COUNTRY	VARCHAR2(30)		C		
SHIP_TO_CONTACT_ FIRST_NAME	VARCHAR2(30)				X
SHIP_TO_CONTACT_ LAST_NAME	VARCHAR2(30)				X
SHIP_TO_CONTACT_JOB_ TITLE	VARCHAR2(30)				X

Table 2–4 OE_LINES_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
SHIP_TO_CONTACT_ AREA_CODE1	VARCHAR2(10)				X
SHIP_TO_CONTACT_ AREA_CODE2	VARCHAR2(10)				X
SHIP_TO_CONTACT_ AREA_CODE3	VARCHAR2(10)				X
SHIP_TO_CONTACT_ID	NUMBER				X
SHIP_TO_CONTACT	VARCHAR2(30)				X
DELIVER_TO_CONTACT_ ID	NUMBER				X
DELIVER_TO_CONTACT	VARCHAR2(30)				X
INVOICE_TO_CONTACT_ ID	NUMBER				X
INVOICE_TO_CONTACT	VARCHAR2(30)				X
DROP_SHIP_FLAG	VARCHAR2(1)				X
VEH_CUS_ITEM_CUM_ KEY_ID	NUMBER				X
CUST_PRODUCTION_SEQ_ NUM	NUMBER				X
LOAD_SEQ_NUMBER	NUMBER				X
OVER_SHIP_REASON_ CODE	VARCHAR2(30)				X
OVER_SHIP_RESOLVED_ FLAG	VARCHAR2(1)				X
AUTHORIZED_TO_SHIP_ FLAG	VARCHAR2(1)				X
SHIP_TOLERANCE_ABOVE	NUMBER				X
SHIP_TOLERANCE_BELOW	NUMBER				X
SHIP_SET_ID	NUMBER				X

Table 2–4 OE_LINES_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
SHIP_SET_NAME	VARCHAR2(30)				X
ARRIVAL_SET_ID	NUMBER				X
ARRIVAL_SET_NAME	VARCHAR2(30)				X
INVOICE_SET_ID	NUMBER				X
INVOICE_SET_NAME	VARCHAR2(30)				X
FULFILLMENT_SET_ID	NUMBER				X
FULFILLMENT_SET_NAME	VARCHAR2(30)				X
PRICE_LIST_ID	NUMBER		C		
PRICE_LIST	VARCHAR2(30)		C		
PRICING_DATE	DATE		C		
UNIT_LIST_PRICE	NUMBER		C		
UNIT_LIST_PRICE_PER_PQTY	NUMBER				
UNIT_SELLING_PRICE	NUMBER		C		
UNIT_SELLING_PRICE_PQTY	NUMBER				
CALCULATE_PRICE_FLAG	VARCHAR2(1)				X
TAX_CODE	VARCHAR2(50)				X
TAX	VARCHAR2(50)				X
TAX_VALUE	NUMBER				X
TAX_DATE	DATE				X
TAX_POINT_CODE	VARCHAR2(30)				For future use
TAX_POINT	VARCHAR2(30)				X
TAX_EXEMPT_FLAG	VARCHAR2(30)				X
TAX_EXEMPT_NUMBER	VARCHAR2(50)				X

Table 2–4 OE_LINES_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
TAX_EXEMPT_REASON_ CODE	VARCHAR2(30)				X
TAX_EXEMPT_REASON	VARCHAR2(30)				X
AGREEMENT_ID	NUMBER				X
AGREEMENT	VARCHAR2(30)				X
INVOICING_RULE_ID	NUMBER		C		
INVOICING_RULE	VARCHAR2(30		C		
ACCOUNTING_RULE_ID	NUMBER		C		
ACCOUNTING_RULE	VARCHAR2(30)		C		
PAYMENT_TERM_ID	NUMBER		C		
PAYMENT_TERM	VARCHAR2(30)		C		
DEMAND_CLASS_CODE	VARCHAR2(30)				X
DEMAND_CLASS	VARCHAR2(30)		C		X
SHIPMENT_PRIORITY_ CODE	VARCHAR2(30)				X
SHIPMENT_PRIORITY	VARCHAR2(30)				X
SHIPPING_METHOD_ CODE	VARCHAR2(30)				X
SHIPPING_METHOD	VARCHAR2(30)				X
SHIPPING_INSTRUCTIONS	VARCHAR2(240)				X
PACKING_INSTRUCTIONS	VARCHAR2(240)				X
FREIGHT_CARRIER_CODE	VARCHAR2(30)				X
FREIGHT_TERMS_CODE	VARCHAR2(30)				X
FREIGHT_TERMS	VARCHAR2(30)				X
FOB_POINT_CODE	VARCHAR2(30)				X
FOB_POINT	VARCHAR2(30)				X

Table 2–4 OE_LINES_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
SALESREP_ID	NUMBER			X	
SALESREP	VARCHAR2(30)		X		
RETURN_REASON_CODE	VARCHAR2(30)	C			
REFERENCE_TYPE	VARCHAR2(30)	C			
REFERENCE_HEADER_ID	NUMBER	C			
REFERENCE_HEADER	VARCHAR2(30)	C			
REFERENCE_LINE_ID	NUMBER	C			
REFERENCE_LINE	VARCHAR2(30)	C			
CREDIT_INVOICE_LINE_ID	NUMBER				X
CUSTOMER_PO_NUMBER	VARCHAR2(50)				X
CUSTOMER_LINE_ NUMBER	VARCHAR2(50)				X
CUSTOMER_SHIPMENT_ NUMBER	VARCHAR2(50)				X
CUSTOMER_ITEM_ID	NUMBER				X
CUSTOMER_ITEM_ID_ TYPE	VARCHAR2(30)				X
CUSTOMER_ITEM_NAME	VARCHAR2(200)				X
CUSTOMER_ITEM_ REVISION	VARCHAR2(50)				X
CUSTOMER_ITEM_NET_ PRICE	NUMBER				X
CUSTOMER_PAYMENT_ TERM_ID					
CUSTOMER_PAYMENT_ TERM					
DEMAND_BUCKET_TYPE_ CODE	VARCHAR2(30)				X

Table 2–4 OE_LINES_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
DEMAND_BUCKET_TYPE	VARCHAR2(50)				X
SCHEDULE_ITEM_DETAIL	VARCHAR2(30)				X
DEMAND_STREAM	VARCHAR2(30)				X
CUSTOMER_DOCK_CODE	VARCHAR2(30)				X
CUSTOMER_DOCK	VARCHAR2(50)				X
CUSTOMER_JOB	VARCHAR2(50)				X
CUSTOMER_ PRODUCTION_LINE	VARCHAR2(50)				X
CUST_MODEL_SERIAL_ NUMBER	VARCHAR2(50)				X
PROJECT_ID	NUMBER				X
PROJECT	VARCHAR2(30)				X
TASK_ID	NUMBER				X
TASK	VARCHAR2(30)				X
END_ITEM_UNIT_ NUMBER	VARCHAR2(30)				X
ITEM_REVISION	VARCHAR2(3)				X
SERVICE_DURATION	NUMBER	C			
SERVICE_START_DATE	DATE	C			
SERVICE_END_DATE	DATE	C			
SERVICE_COTERMINATE_ FLAG	VARCHAR2(1)	C			
UNIT_SELLING_PERCENT	NUMBER			X	
UNIT_LIST_PERCENT	NUMBER			X	
UNIT_PERCENT_BASE_ PRICE	NUMBER			X	
SERVICE_NUMBER	NUMBER			X	

Table 2–4 OE_LINES_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
SERVICED_LINE_ID	NUMBER			X	
FULFILLED_FLAG	VARCHAR2(1)				X
CLOSED_FLAG	VARCHAR2(1)				X
CANCELLED_FLAG	VARCHAR2(1)				X
REJECTED_FLAG	VARCHAR2(1)				X
CONTRACT_PO_NUMBER	VARCHAR2(150)				X
LINE_PO_CONTEXT	VARCHAR2(30)				X
ATTRIBUTE1..15	VARCHAR2(240)				X
INDUSTRY_CONTEXT	VARCHAR2(30)				X
INDUSTRY_ ATTRIBUTE1..30	VARCHAR2(240)				X
PRICING_CONTEXT	VARCHAR2(150)				X
PRICING_ATTRIBUTE1..10	VARCHAR2(240)				X
PRICING_ATTRIBUTE10	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE_ CATEGORY	VARCHAR2(30)				X
GLOBAL_ATTRIBUTE1..20	VARCHAR2(240)				X
RETURN_ATTRIBUTE1..15	VARCHAR2(240)				X
INVENTORY_ITEM_ SEGMENT_1...20	VARCHAR2(240)				X
SERVICE_CONTEXT	VARCHAR2(30)				X
SERVICE_ATTRIBUTE1..15	VARCHAR2(240)				X
CREATED_BY	NUMBER	REQUIRED			
CREATION_DATE	DATE	REQUIRED			
LAST_UPDATED_BY	NUMBER	REQUIRED			
LAST_UPDATE_DATE	DATE				X

Table 2–4 OE_LINES_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
LAST_UPDATE_LOGIN	NUMBER				X
PROGRAM_APPLICATION_ID	NUMBER				X
PROGRAM_ID	NUMBER				X
PROGRAM_UPDATE_DATE	DATE				X
REQUEST_ID	NUMBER	REQUIRED			
OPERATION_CODE	VARCHAR2(30)				X
ERROR_FLAG	VARCHAR2(1)				X
STATUS_FLAG	VARCHAR2(1)				X
CHANGE_REASON	VARCHAR2(30)				X
CHANGE_COMMENTS	VARCHAR2(2000)				X
CONFIG_HEADER_ID	NUMBER			X	X
CONFIG_REV_NBR	NUMBER			X	X
CONFIGURATION_ID	NUMBER			X	X
SERVICE_TXN_REASON_CODE	VARCHAR2(30)				X
SERVICE_TXN_COMMENTS	VARCHAR2(2000)				X
BLANKET_NUMBER	NUMBER				
BLANKET_LINE_NUMBER	NUMBER				

Table 2–4 OE_LINES_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
OVERRIDE_ATP_DATE_CODE	Varchar2(30)	No Conditional Settings: Schedule_ship_date, Schedule_arrival_date	No	No	Y Comment: Based on the Ordered Date Type, either of the dates should be populated to override the line.
LATE_DEMAND_PENALTY_FACTOR	Number	No	No	No	Y Values should be greater than 0.
SHIP_TO_CUSTOMER_NAME	Varchar2(360)				
SHIP_TO_CUSTOMER_NUMBER	Varchar2(30)				
INVOICE_TO_CUSTOMER_NAME	Varchar2(360)				
INVOICE_TO_CUSTOMER_NUMBER	Varchar2(30)				
DELIVER_TO_CUSTOMER_NAME	Varchar2(360)				
DELIVER_TO_CUSTOMER_NUMBER	Varchar2(30)				
DELIVER_TO_ADDRESS1	Varchar2(240)				
DELIVER_TO_ADDRESS2	Varchar2(240)				
DELIVER_TO_ADDRESS3	Varchar2(240)				
DELIVER_TO_ADDRESS4	Varchar2(240)				

Table 2–4 OE_LINES_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
DELIVER_TO_CITY	Varchar2(60)				
DELIVER_TO_COUNTY	Varchar2(60)				
DELIVER_TO_COUNTRY	Varchar2(60)				
DELIVER_TO_STATE	Varchar2(60)				
DELIVER_TO_PROVINCE	Varchar2(60)				
DELIVER_TO_POSTAL_ CODE	Varchar2(60)				
ORIG_SHIP_ADDRESS_REF	Varchar2(50)	Yes, if Ship_To_ Address is being added for the customer at the line level			
ORIG_BILL_ADDRESS_REF	Varchar2(50)	Yes, if Bill_To_ Address is being added for the customer at the line level			
ORIG_DELIVER_ADDRESS_ REF	Varchar2(50)	Yes, if Deliver_ To_Address is being added for the customer at the line level			
SHIP_TO_CONTACT_REF	Varchar2(50)	Yes, if Ship_To_ Contact is being added for the customer at the line level			

Table 2–4 OE_LINES_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
BILL_TO_CONTACT_REF	Varchar2(50)	Yes, if Bill_To_ Contact is being added for the customer at the line level			
DELIVER_TO_CONTACT_ REF	Varchar2(50)	Yes, if Deliver_ To_Contact is being added for the customer at the line level			
XML_TRANSACTION_ TYPE_CODE					

OE_LINES_IFACE_ALL Derived Values

- AGREEMENT_ID = OE_AGREEMENTS_TL.AGREEMENT_ID
- SHIP_FROM_ORG_ID = HR_ALL_ORGANIZATION_ UNITS.ORGANIZATION_ID
- SOLD_FROM_ORG_ID = HR_ALL_ORGANIZATION_ UNITS.ORGANIZATION_ID
- ACCOUNTING_RULE_ID = RA_RULES.RULE_ID
- INVOICING_RULE_ID = RA_RULES.RULE_ID
- SALESREP_ID = RA_SALESREPS_ALL.SALESREP_ID
- PRICE_LIST_ID = QP_LIST_HEADERS_TL.LIST_HEADER_ID
- PAYMENT_TERM_ID = RA_TERMS_B.TERM_ID
- CUSTOMER_PAYMENT_TERM_ID = RA_TERMS_B.TERM_ID
- SALESREP = RA_SALESREPS_ALL.NAME
- CUSTOMER_PAYMENT_TERM = RA_TERMS_TL.NAME
- PAYMENT_TERM = RA_TERMS_TL.NAME
- PRICE_LIST = QP_LIST_HEADERS_TL.NAME

- ORDER_SOURCE_ID = OE_ORDER_SOURCES.ORDER_SOURCE_ID
- ORIG_SYS_DOCUMENT_REF =
- OE_HEADERS_IFACE_ALL.ORIG_SYS_DOCUMENT_REF
- LINK_TO_LINE_REF = OE_LINES_IFACE_ALL.ORIG_SYS_LINE_REF
- TOP_MODEL_LINE_REF = OE_LINES_IFACE_ALL.ORIG_SYS_LINE_REF

Table 2–5 OE_LINES_IFACE_ALL Conditional Settings

Column Name	Conditional Setting requirement
INVENTORY_ITEM_ID INVENTORY_ITEM	Condition is that either column should be populated
TOP_MODEL_LINE_REF LINK_TO_LINE_REF	Required for model items only
SHIPPING_QUANTITY SHIPPING_QUANTITY_UOM	Condition is that both columns should be populated, if populated since they are not required.
PRICING_QUANTITY PRICING_QUANTITY_UOM	Condition is that both columns should be populated, if populated since they are not required.
RETURN_REASON_CODE	Only required for returns.
REFERENCE_TYPE REFERENCE_HEADER_ID REFERENCE_HEADER REFERENCE_LINE_ID REFERENCE_LINE	Reference_Type should be there to populate either reference_header_id/reference_header and reference_line_id/reference_line (either id or value column should be populated; not both)
SERVICE_DURATION SERVICE_START_DATE SERVICE_END_DATE SERVICE_COTERMINATE_FLAG	Should be populated only for service items
SOLD_FROM_ORG_ID SOLD_FROM_ORG	Condition is that either column should be populated
SOLD_TO_ORG_ID SOLD_TO_ORG	Condition is that either column should be populated

Table 2–5 OE_LINES_IFACE_ALL Conditional Settings

Column Name	Conditional Setting requirement
INVOICE_TO_ ORG_ID INVOICE_TO_ORG	Condition is that either column should be populated
SHIP_TO_ADDRESS1..4 SHIP_TO_CITY SHIP_TO_COUNTY SHIP_TO_STATE SHIP_TO_POSTAL_CODE SHIP_TO_COUNTRY	These columns or Ship_to_Org_id should be present.
PRICE_LIST_ID PRICE_LIST	Condition is that either column should be populated
ACCOUNTING_RULE_ID ACCOUNTING_RULE	Condition is that either column should be populated
PAYMENT_TERM_ID PAYMENT_TERM	Condition is that either column should be populated

Table 2–5 OE_LINES_IFACE_ALL Conditional Settings

Column Name	Conditional Setting requirement
DEMAND_CLASS_CODE DEMAND_CLASS	Condition is that either column should be populated, if populated since they are not required.
SHIP_TO_CUSTOMER_NAME SHIP_TO_CUSTOMER_NUMBER INVOICE_TO_CUSTOMER_NAME INVOICE_TO_CUSTOMER_NUMBER DELIVER_TO_CUSTOMER_NAME DELIVER_TO_CUSTOMER_NUMBER	
DELIVER_TO_ADDRESS1 DELIVER_TO_ADDRESS2 DELIVER_TO_ADDRESS3 DELIVER_TO_ADDRESS4 DELIVER_TO_CITY DELIVER_TO_COUNTY DELIVER_TO_COUNTRY DELIVER_TO_STATE DELIVER_TO_PROVINCE DELIVER_TO_POSTAL_CODE	

Table 2–6 OE_PRICE_ADJS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
AC_CONTEXT	VARCHAR2(150)				
AC_ATTIBUTE1...15	VARCHAR2(240)				
ATTRIBUTE1...15	VARCHAR2(240)				X
ADJUSTED_AMOUNT	VARCHAR2()				X
ADJUSTED_AMOUNT_PER_PQTY	VARCHAR2()				X

Table 2–6 OE_PRICE_ADJS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
APPLIED_FLAG	VARCHAR2(1)				X
ARITHMETIC_OPERATOR	VARCHAR2()				X
AUTOMATIC_FLAG	VARCHAR2(1)				X
CHANGE_REQUEST_CODE	VARCHAR2(30)				X
CHANGE_SEQUENCE	VARCHAR2(50)				X
CHANGE_REASON_CODE	VARCHAR2(30)				
CHANGE_REASON_TEXT	VARCHAR2(2000)				
CHARGE_SUBTYPE_CODE	VARCHAR2(30)				
CHARGE_TYPE_CODE	VARCHAR2(30)				
CONTEXT	VARCHAR2(30)				X
COST_ID	NUMBER				
CREATED_BY	NUMBER	REQUIRED			
CREATION_DATE	DATE	REQUIRED			
CREDIT_OR_CHARGE_FLAG	VARCHAR2(1)				
DISCOUNT_ID	NUMBER				
DISCOUNT_LINE_ID	NUMBER				
DISCOUNT_NAME	VARCHAR2(30				
ERROR_FLAG	VARCHAR2(1)				X
ESTIMATED_FLAG	VARCHAR2(1)				
INC_IN_SALES_ PERFORMANCE	VARCHAR2(1)				
INCLUDE_ON_RETURNS_ FLAG	VARCHAR2(1)				
INTERFACE_STATUS	VARCHAR2(1000)				
INVOICED_FLAG	VARCHAR2(1)				
LAST_UPDATE_DATE	DATE	REQUIRED			

Table 2–6 OE_PRICE_ADJS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
LAST_UPDATE_LOGIN	NUMBER				X
LAST_UPDATED_BY	NUMBER	REQUIRED			
LIST_HEADER_ID	NUMBER				
LIST_LINE_ID	NUMBER				
LIST_LINE_NUMBER	NUMBER				
LIST_LINE_TYPE_CODE	VARCHAR2(30)				
LIST_NAME	VARCHAR2(240)				
MODIFIED_FROM	VARCHAR2(240)				
MODIFIED_TO	VARCHAR2(240)				
MODIFIER_MECHANISM_ TYPE_CODE	VARCHAR2(30)				
MODIFIER_NAME	VARCHAR2(240)				
OPERAND	NUMBER				
OPERAND_PER_PQTY	NUMBER				
OPERATION_CODE	VARCHAR2(30)	REQUIRED			
ORDER_SOURCE_ID	NUMBER				
ORG_ID	NUMBER			X	
ORIG_SYS_DISCOUNT_REF	VARCHAR2(50)	REQUIRED			
ORIG_SYS_DOCUMENT_REF	VARCHAR2(50)	REQUIRED			
ORIG_SYS_LINE_REF	VARCHAR2(50)	Conditional or optional (Required only if line level adjustment/credit)			
ORIG_SYS_SHIPMENT_REF	VARCHAR2(50)	OPTIONAL			
PARENT_ADJUSTMENT_ID	NUMBER				

Table 2–6 OE_PRICE_ADJS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
PERCENT	NUMBER				X
PRICING_PHASE_ID	NUMBER				
PROGRAM_APPLICATION_ID	NUMBER				X
PROGRAM_ID	NUMBER				X
PROGRAM_UPDATE_DATE	DATE				X
REQUEST_ID	NUMBER				X
STATUS_FLAG	VARCHAR2(1)				X
TAX_CODE	VARCHAR2(50)				
UPDATE_ALLOWED	VARCHAR2(1)				
UPDATED_FLAG	VARCHAR2(1)				
VERSION_NUMBER	VARCHAR2(30)				

OE_PRICE_ADJS_IFACE_ALL Derived Values

- ORDER_SOURCE_ID = OE_ORDER_SOURCES.ORDER_SOURCE_ID
- ORIG_SYS_DISCOUNT_REF =OE_ORDER_HEADERS_ALL.ORIG_SYS_DOCUMENT_REF
- ORIG_SYS_LINE_REF = OE_ORDER_LINES_ALL.ORIG_SYS_LINE_REF
- ORIG_SYS_SHIPMENT_REF = OE_ORDER_LINES_ALL.ORIG_SYS_SHIPMENT_REF
- LIST_HEADER_ID = QP_LIST_HEADERS_B.LIST_HEADER_ID
- LIST_NAME = QP_LIST_HEADERS_TL.NAME
- LIST_LINE_ID = QP_LIST_LINES.LIST_LINE_ID

Table 2–7 OE_PRICE_ATTS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
ATTRIBUTE1...15	VARCHAR2(240)				X
CHANGE_REQUEST_CODE	VARCHAR2(30)				X
CHANGE_SEQUENCE	VARCHAR2(50)				X
CONTEXT	VARCHAR2(30)				X
CREATED_BY	NUMBER	REQUIRED			
CREATION_DATE	DATE	REQUIRED			
CREDIT_OR_CHARGE_FLAG	VARCHAR2(1)				
ERROR_FLAG	VARCHAR2(1)				X
FLEX_TITLE					
INTERFACE_STATUS	VARCHAR2(1000)				
LAST_UPDATE_DATE	DATE	REQUIRED			
LAST_UPDATE_LOGIN	NUMBER				X
LAST_UPDATED_BY	NUMBER	REQUIRED			
OPERATION_CODE	VARCHAR2(30)	REQUIRED			
ORDER_SOURCE_ID					
ORG_ID	NUMBER			X	
ORIG_SYS_ATT_REF	VARCHAR2(50)	REQUIRED			
ORIG_SYS_DOCUMENT_REF	VARCHAR2(50)	REQUIRED			
ORIG_SYS_LINE_REF	VARCHAR2(50)	Conditional or optional (Required only if line level adjustment/credit)			
ORIG_SYS_SHIPMENT_REF	VARCHAR2(50)	OPTIONAL			
PRICING_ATTIBUTE1...100					

Table 2–7 OE_PRICE_ATTS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
PROGRAM_APPLICATION_ID	NUMBER				X
PROGRAM_ID	NUMBER				X
PROGRAM_UPDATE_DATE	DATE				X
REQUEST_ID	NUMBER				X
STATUS_FLAG	VARCHAR2(1)				X

OE_PRICE_ATTS_IFACE_ALL Derived Values

- ORDER_SOURCE_ID = OE_ORDER_SOURCES.ORDER_SOURCE_ID
- ORIG_SYS_DOCUMENT_REF = OE_ORDER_HEADERS_ALL.ORIG_SYS_DOCUMENT_REF
- ORIG_SYS_LINE_REF = OE_ORDER_LINES_ALL.ORIG_SYS_LINE_REF
- ORIG_SYS_SHIPMENT_REF = OE_ORDER_LINES_ALL.ORIG_SYS_SHIPMENT_REF

Table 2–8 OE_CREDITS_IFACE_ALL

Column Name	Type	Required (C= Conditionally Required)	Conditionally Required for Booking	Derived	Optional
ORDER_SOURCE_ID	NUMBER	REQUIRED			
ORIG_SYS_DOCUMENT_REF	VARCHAR2(50)	REQUIRED			
ORIG_SYS_LINE_REF	VARCHAR2(50)	Conditional or optional (Required only if line level adjustment/credit)			
ORIG_SYS_SHIPMENT_REF	VARCHAR2(50)	OPTIONAL			
ORIG_SYS_CREDIT_REF	VARCHAR2(50)	REQUIRED			

Table 2–8 OE_CREDITS_IFACE_ALL

Column Name	Type	Required (C= Conditionally Required)	Conditionally Required for Booking	Derived	Optional
CHANGE_SEQUENCE	VARCHAR2(50)				X
CHANGE_REQUEST_CODE	VARCHAR2(30)				X
ORG_ID	NUMBER			X	
SALESREP_ID	NUMBER			X	
SALESREP	VARCHAR2(30)			X	
SALES_CREDIT_TYPE_ID	NUMBER	C			
SALES_CREDIT_TYPE	VARCHAR2(30)	C			
QUOTA_FLAG	VARCHAR2(1)			X	
PERCENT	NUMBER	REQUIRED			
CONTEXT	VARCHAR2(30)				X
ATTRIBUTE1..15	VARCHAR2(240)				X
CREATED_BY	NUMBER			X	
CREATION_DATE	DATE			X	
LAST_UPDATED_BY	NUMBER			X	
LAST_UPDATE_DATE	DATE			X	
LAST_UPDATE_LOGIN	NUMBER			X	
PROGRAM_APPLICATION_ID	NUMBER				X
PROGRAM_ID	NUMBER				X
PROGRAM_UPDATE_DATE	DATE				X
REQUEST_ID	NUMBER				X
OPERATION_CODE	VARCHAR2(30)	REQUIRED			
ERROR_FLAG	VARCHAR2(1)				X
STATUS_FLAG	VARCHAR2(1)				X

Table 2–9 OE_CREDITS_IFACE_ALL Conditional Settings

Column Name	Conditional Setting requirement
SALES_CREDIT_TYPE_ID & SALES_CREDIT_TYPE	Condition is that either one these columns should be populated

OE_CREDITS_IFACE_ALL Derived Values

- ORDER_SOURCE_ID = OE_ORDER_SOURCES.ORDER_SOURCE_ID
- ORIG_SYS_DOCUMENT_REF = OE_HEADERS_IFACE_ALL.ORIG_SYS_DOCUMENT_REF
- ORIG_SYS_LINE_REF = OE_LINES_IFACE_ALL.ORIG_SYS_LINE_REF
- ORIG_SYS_SHIPMENT_REF = OE_LINES_IFACE_ALL.ORIG_SYS_SHIPMENT_REF

Table 2–10 OE_LOTSERIALS_IFACE_ALL

Column Name	Type	Required (C= Conditionally Required)	Conditionally Required for Booking	Derived	Optional
ORDER_SOURCE_ID	NUMBER	REQUIRED			
ORIG_SYS_DOCUMENT_REF	VARCHAR2(50)	REQUIRED			
ORIG_SYS_LINE_REF	VARCHAR2(50)	Conditional or optional (Required only if line level adjustment/credit)			
ORIG_SYS_SHIPMENT_REF	VARCHAR2(50)	OPTIONAL			X
ORIG_SYS_LOTSERIAL_REF	VARCHAR2(50)	REQUIRED			
CHANGE_SEQUENCE	VARCHAR2(50)				X
CHANGE_REQUEST_CODE	VARCHAR2(30)				X
ORG_ID	NUMBER			X	
LOT_NUMBER	NUMBER	C			
FROM_SERIAL_NUMBER	VARCHAR2(30)	C			
TO_SERIAL_NUMBER	VARCHAR2(30)	C			

Table 2–10 OE_LOTSERIALS_IFACE_ALL

Column Name	Type	Required (C= Conditionally Required)	Conditionally Required for Booking	Derived	Optional
QUANTITY	NUMBER	REQUIRED			
CONTEXT	VARCHAR2(30)				X
ATTRIBUTE1..15	VARCHAR2(240)				X
CREATED_BY	NUMBER	REQUIRED			
CREATION_DATE	DATE	REQUIRED			
LAST_UPDATED_BY	NUMBER	REQUIRED			
LAST_UPDATE_DATE	DATE	REQUIRED			
LAST_UPDATE_LOGIN	NUMBER	REQUIRED			
PROGRAM_APPLICATION_ID	NUMBER				X
PROGRAM_ID	NUMBER				X
PROGRAM_UPDATE_DATE	DATE				X
REQUEST_ID	NUMBER				X
OPERATION_CODE	VARCHAR2(30)	REQUIRED			
ERROR_FLAG	VARCHAR2(1)				X
STATUS_FLAG	VARCHAR2(1)				X

OE_LOTSERIALS_IFACE_ALL derived Values

- ORDER_SOURCE_ID = OE_ORDER_SOURCES.ORDER_SOURCE_ID
- ORIG_SYS_DOCUMENT_REF = OE_ORDER_LINES_ALL.ORIG_SYS_DOCUMENT_REF
- ORIG_SYS_LINE_REF = OE_LINES_IFACE_ALL.ORIG_SYS_LINE_REF
- ORIG_SYS_SHIPMENT_REF = OE_LINES_IFACE_ALL.ORIG_SYS_SHIPMENT_REF

Table 2–11 OE_RESERVTNS_IFACE_ALL

Column Name	Type	Required (C= Conditionally Required)	Conditionally Required for Booking	Derived	Optional
ORDER_SOURCE_ID	NUMBER	REQUIRED			
ORIG_SYS_DOCUMENT_ REF	VARCHAR2(50)	REQUIRED			
ORIG_SYS_LINE_REF	VARCHAR2(50)	REQUIRED			
ORIG_SYS_SHIPMENT_REF	VARCHAR2(50)				X
ORIG_SYS_RESERVATION_ REF	VARCHAR2(50)	REQUIRED			
CHANGE_SEQUENCE	VARCHAR2(50)				X
ORG_ID	NUMBER			X	
INVENTORY_ITEM_ID	NUMBER	REQUIRED			
REVISION	VARCHAR2(3)				X
LOT_NUMBER_ID	NUMBER				X
LOT_NUMBER	VARCHAR2(30)				X
SUBINVENTORY_ID	NUMBER				
SUBINVENTORY_CODE	VARCHAR2(10)				X
LOCATOR_ID	NUMBER				X
QUANTITY	NUMBER	REQUIRED			
ATTRIBUTE_CATEGORY	VARCHAR2(30)				X
ATTRIBUTE1..15	VARCHAR2(240)				X
OPERATION_CODE	VARCHAR2(30)	REQUIRED			
REQUEST_ID	NUMBER				X
ERROR_FLAG	VARCHAR2(1)				X

OE_RESERVTNS_IFACE_ALL Derived Values

- ORDER_SOURCE_ID = OE_ORDER_SOURCES.ORDER_SOURCE_ID
- ORIG_SYS_DOCUMENT_REF = OE_ORDER_HEADERS_ALL.ORIG_SYS_ DOCUMENT_REF

- ORIG_SYS_LINE_REF = OE_ORDER_LINES_ALL.ORIG_SYS_LINE_REF
- ORIG_SYS_SHIPMENT_REF = OE_ORDER_LINES_ALL.ORIG_SYS_SHIPMENT_REF
- INVENTORY_ITEM_ID = MTL_SYSTEM_ITEMS_B.INVENTORY_ITEM_ID

Table 2–12 OE_ACTIONS_IFACE_ALL

Column Name	Type	Required (C= Conditionally Required)	Conditionally Required for Booking	Derived	Optional
ORDER_SOURCE_ID	NUMBER				X
ORIG_SYS_DOCUMENT_REF	VARCHAR2(50)	REQUIRED			
ORIG_SYS_LINE_REF	VARCHAR2(50)				X
ORIG_SYS_SHIPMENT_REF	VARCHAR2(50)				X
CHANGE_SEQUENCE	VARCHAR2(50)				X
ORG_ID	NUMBER			X	
HOLD_ID	NUMBER				X
HOLD_TYPE_CODE	VARCHAR2(1)				X
HOLD_TYPE_ID	NUMBER				X
HOLD_UNTIL_DATE	DATE				X
RELEASE_REASON_CODE	VARCHAR2(30)				X
COMMENTS	VARCHAR2(240)				X
CONTEXT	VARCHAR2(240)				X
ATTRIBUTE1..15	VARCHAR2(240)				X
REQUEST_ID	NUMBER				X
OPERATION_CODE	VARCHAR2(30)	REQUIRED			
ERROR_FLAG	VARCHAR2(1)				X
STATUS_FLAG	VARCHAR2(1)				X

OE_ACTIONS_IFACE_ALL derived Values

- ORDER_SOURCE_ID = OE_ORDER_SOURCES.ORDER_SOURCE_ID

- ORIG_SYS_DOCUMENT_REF = OE_HEADERS_IFACE_ALL.ORIG_SYS_DOCUMENT_REF
- ORIG_SYS_LINE_REF = OE_LINES_IFACE_ALL.ORIG_SYS_LINE_REF
- ORIG_SYS_SHIPMENT_REF = OE_LINES_IFACE_ALL.ORIG_SYS_SHIPMENT_REF

Process Order Application Open Interface

The Sales Order has been modeled as a business object that Oracle Order Management owns. The Sales Order business object comprises of several entities, namely, Header, Header Sales Credits, Header Price Adjustments, Header Pricing Attributes, Header Adjustment Attributes, Header Adjustment Associations, Lines, Line Sales Credits, Line Price Adjustments, Line Pricing Attributes, Line Adjustment Attributes, Line Adjustment Associations, and Line Lot Serial Numbers.

The Process Order Application Program Interface (API) is designed as the mechanism through which all data manipulation (inserts, updates and deletes) may be performed on the Sales Order business object entities and their attributes, in a consistent manner. Besides these, certain other action requests such as applying holds, attachments, booking etc. can also be processed using the Sales Order API. Business logic in the API not only takes care of updates to the attributes but also make calls to other functions depending on the changes to attribute values.

The importance of using the Process Order API for all data manipulation to the Sales Order Business object cannot be over stressed. It must be understood that by using the Process Order API we not only avoid duplication of business logic in many functions but also move towards the distributed solution approach.

Process Order API Features

Operations on the Sales Order Object

The Process Order API can be used to create, update or delete the following entities that the sales order business object consists of.

Table 2–13 Process Orders Entities and associated tables

Entity	Table Name
Order Header	OE_ORDER_HEADERS_ALL

Table 2–13 Process Orders Entities and associated tables

Entity	Table Name
Order Price Adjustments	OE_PRICE_ADJUSTMENTS
Order Sales Credits	OE_SALES_CREDITS
Order Line	OE_ORDER_LINES_ALL
Order Pricing Attributes	OE_ORDER_PRICE_ATTRIBS
Order Adjustment Attributes	OE_PRICE_ADJ_ATTRIBS
Order Adjustment Associations	OE_PRICE_ADJ_ASSOCS
Line Sales Credits	OE_SALES_CREDITS
Line Price Adjustments	OE_PRICE_ADJUSTMENTS
Line Pricing Attributes	OE_ORDER_PRICE_ATTRIBS
Line Adjustment Attributes	OE_PRICE_ADJ_ATTRIBS
Line Adjustment Associations	OE_PRICE_ADJ_ASSOCS
Lot Serial Numbers	OE_LOT_SERIAL_NUMBERS

Passing Parameters By Values

Process Order API provides users the capability of passing the attributes on the order entities by their display values instead of their internal identifiers (IDs or codes).

For e.g. to specify the customer on the order, the user can either pass in the customer ID on the header record, p_header_rec.sold_to_org_id or send in the display name of the customer on the header value record, p_header_val_rec.sold_to_org.

The values are internally resolved into the identifiers for all the entity records passed to process order. For the value fields that could not be resolved, error messages are posted to the OM message stack and none of the records are processed any further.

If both the value and the identifier fields are populated for the same attribute, then information messages are posted to the OM message stack for such attributes. The identifier field takes preference and further processing is based on this field.

Pricing an Order/Line

Pricing in process order API can be controlled using flag calculate_price_flag on order line record. When set to 'Y 'the process order API fetches the list price and applies adjustments and charges. When set to N, the process order API would fetch a list price if the list price is not passed and no adjustments would be applied. When set to P, all the modifiers which are associated with phases having override freeze flag set to Y are applied. That mainly includes freight charges.

You may use the Process Order Interface for order repricing, provided the order data you are updating has an change that will trigger repricing. Once Process Order is invoked and program logic determines an attribute that can trigger order repricing has been updated, a call to the pricing engine is made to reprice the order.

The following order attributes (database columns) can trigger Process Order to reprice an order or order line:

- agreement_id
- cust_po_number
- inventory_item_id
- invoice_to_org_id
- ordered_item_id
- ordered_item
- line_category_code
- line_type_id
- ordered_quantity
- ordered_quantity_uom
- preferred_grade
- payment_term_id
- price_list_id
- pricing_date
- request_date
- ship_to_org_id
- sold_to_org_id
- service_start_date

- service_end_date
- service_duration
- service_period

You can also choose to update order pricing via the action *Price Order* from the Order Organizer or Sales Orders window.

Note: You cannot interface an order line having a price list with a currency code different from the existing or newly created order header's currency code. An error message will be displayed in the Process Messages window.

Scheduling/Reservations

Process order API can be used to perform scheduling actions on order lines. Scheduling actions include: schedule, unschedule, reserve and unreserve.

The schedule_action_code field provided on the order line record (line_rec_type) can be used to provide the action which needs to be performed on the order line.

Reservations can also be performed by passing the reserved_quantity on the order line record. You do not need to send in the schedule action if reserved_quantity is passed.

Process Order API will also automatically schedule or re-schedule the lines if the schedule_ship_date or schedule_arrival_date field is passed or updated respectively.

Alternatively, you can just set the profile option *OM: AutoSchedule* to Yes and all standard lines will be automatically scheduled as they are created. This holds true only if the lines are not part of any set.

Return Lines

Process order can be used to create and update return lines also. To create a return line, you can either pass in the line category of *RETURN* on the order line record and the line type would default to the inbound line type of the order type. Alternatively, you can also provide a line type of the type *Return* on the order line record.

Additionally, if you want to specify a reference for the return line, you can pass in the return flexfields (return_context, return_attribute1-2).

Column Return_Context can have the following values to determine the reference type:

- Sales Order
- Customer PO
- Invoice
- Serial Number

Return_Attribute1... Return_Attribute2 can have the following values depending on the reference type:

1. Sales Order
   - return_Attribute1: Header ID
   - return_Attribute2: Line ID
2. Customer PO
   - return_Attribute1: Header ID
   - return_Attribute2: Line ID
3. Invoice
   - return_Attribute1: Invoice Header ID
   - return_Attribute2: Invoice Line ID
4. Serial Number
   - return_Attribute1: Inventory Item ID
   - return_Attribute2: Serial Number

Special Considerations for using Process Order for return orders

Creation of a non-referenced RMA: If you wish to process orders for a return order for a non referenced return, you must

- populate all required attributes for creating a return order
- use an order category of RETURN or MIXED for the Order Header record.
- populate all required attributes for creating a return order lines.
  - For Order Line Record, the line category should be set to RETURN, and specify a RETURN LINE TYPE within column line_type_id.

- Line_type _id is optional, provided a default line_type has been defined for the specified Order Type.)
- Additionally, you will need to populate the column reason_code for all return lines. Valid values are those values defined for the Order Management quickcode *CREDIT_MEMO_REASON*.

Creation of a Referenced RMA (if you want to return an existing outbound line) If you create a referenced RMA, you should copy the Header Record for the return from the referenced Order header record, modifying the Order Type to category RETURN or MIXED (order_type_id from oe_transaction_types_all).

For the Order Line record, populate the following attributes only:

1. Line_category_code: RETURN
2. return_context: ORDER
3. return_attribute1: header_id from the referenced order.
4. return_attribute2: line_id from the referenced order line.
5. calculate_price_flag: Set it to P if you want to retain the original price, the flag to Y if you want to reprice the RMA line.
6. line_type_id: Assign a line_type_id from RMA line. Line_type _id is optional, provided a default line_type has been defined for the specified Order Line Type.)
7. return_reason_code: Populate a reason code from lookup_type = *CREDIT_MEMO_REASON*.
8. Sales credit details: populate the header_level/line level sales credits from the referenced order.

Holds/Releases

The existing hold sources are evaluated and if they are applicable, holds are applied and released automatically on the orders or order lines when created/updated via the process order API.

For e.g. if there is a hold source defined for the customer ABC, all orders for that customer are placed on hold as they are entered.

Attachments

If the profile option *OM: Apply Automatic Attachments* is set to *Yes* and if attachment rules are applicable, attachments are automatically applied to the order header or order lines when they are created via the process order API.

> **Note:** Attachments are NOT automatically deleted or re-applied if the order or line is updated.

The caller can also send in an explicit action request to apply attachments. Please refer to the section Action Requests for more details.

Sets

Process order can be used to add or delete order lines from ship sets, arrival sets or fulfillment sets.

User can add a line into a new set by passing set name (ship_set/arrival_set/fullfillment_set) on the line record or user can use set id (ship_set_id/arrival_set_id/fulfillment_set_id) to add to an existing set.

Splits

Process order can be used to split an existing order line into shipments. User can perform splits by calling process order with both the line records, one to reduce the quantity on the existing line record with the action of SPLIT and another to create the new line with the remaining quantity and a reference to the line that it was split from. For e.g. if user wants to split a line with original quantity 10 into 6 and 4 he must populate the table in the following manner. In the first update call to process order user cannot update any other attributes other than ordered quantity.

```
line_tbl(1).split_action_code := 'SPLIT'
line_tbl(1).split_by := 'USER'
line_tbl(1).ordered_quantity := 6
line_tbl(1).operation = oe_globals.g_opr_update
line_tbl(2).split_action_code := 'SPLIT'
line_tbl(2).split_by := 'USER'
line_tbl(2).ordered_quantity := 4
line_tbl(2).operation = oe_globals.g_opr_create
line_tbl(2).split_from_line_id := line_tbl(1).line_id
```

User can also optionally pass in the change reason and change comments on the original line record that is being updated.

Cancellation

Process order can be used to cancel orders and order lines. User should update the cancelled flag to Y on the header record if user intends to cancel the entire order. Cancellation on the line is performed by reducing the ordered quantity on the line record. User has to supply change reason and optionally change comments on the line record.

Tax Calculation

Process order will check whether the transaction type on the order line is taxable or whether user has specified that tax should be calculated (set the tax exempt flag to Required). The calculated tax is always an estimated value and is internally stored as a price adjustment.

Freight and Special Charges

Freight and special charges can be setup in pricing as modifiers. When the order or line is priced, these charges get applied on the order or line. These do not affect the unit selling price and are also stored as price adjustments.

Users can also specify the freight and special charges to be applied by setting up the price adjustment records appropriately. Such price adjustments should have the list_line_type_code parameter set to *CHARGE*.

Cascading

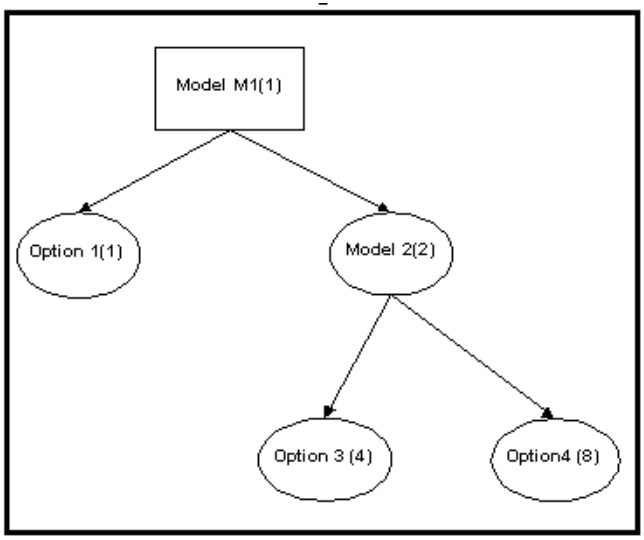
Process Order will automatically cascade changes to other dependent entities. For e.g.

cascade quantity changes from model lines to all options lines

if a set identifying attribute is changed on one line of the set, the change will be automatically applied to all lines on the set.

Processing Sequence is very important when considering automatic cascading. Process Order will go by the following order when processing the line entity. First, all standard lines and model lines are processed. These are followed by processing of requests in their arrival order. The importance of declaring the processing sequence may be depicted by the following example. Consider that a model M1 has O1 and M2 as two of its options. M2 has O2 and O3 as two options defined for it. Graphically represented, it would look like this.

Figure 2–1 Simplified graphical representation of an ATO configuration



Let us assume that the following requests are received by Process Order API:

Request 1: Update the quantity of Option4 to 20.

Request 2: Update the quantity of Model2 to 4.

If requests are processed in the order that they were received, the following would occur:

Option 4 would be updated to 20 assuming that the new ratio between Model2 and Option4 (1:10) falls within a valid range. Next Model2 would be updated to 4 (assuming again that ratio of Model1 to Model2 is valid). That would then result in quantity cascading, thereby updating Option3 to 8 and Option4 to 40. So we end up with:

Model2 = 4, Option3 = 8, Option4 = 40.

If processing sequence of requests is based on item type (models first, classes next, options after that etc.), the following would be the sequence in which the requests would be processed:

Request 2 would be processed first, with quantity of Model2 to be updated to 4. Next quantity of Option4 would be updated to 20 (assuming ratios fall in the right range). So we would end up with:

Model2 = 4, Option3 = 8 and Option4 = 20.

The above example highlights the differences with processing lines (termed in the example as requests) in the sequential arrival order versus processing based on item types.

As stated earlier, process order API will process Standard Lines and top level Model lines first., then option classes and option lines and service lines in the end. For lines in the same category, the requests would be processed in the order that they are received.

Functional Overview

Public Procedures

Process Order API provides the following public procedures for operations and queries on the entities for the sales order object.

- Process_Order
- This is the main procedure used to create, update and delete the entities on the sales order. This procedure can also be used to perform other actions via the records or explicit action requests.

  Please refer to the next section on the details of the processing.
- Get_Order

  This procedure queries and returns all records belonging to a single sales order object.
- Lock_Order

  Locks the entities of a sales order object. Use the get_order procedure to retrieve the entity records and then call lock_order with the records to be locked.

Processing the Sales Order business object

Process order can only process entities belonging to one sales order in one i.e. in a single call, it can accept one header record and a table of header adjustment, header sales credits, lines, line adjustments, line sales credit and line lot serial numbers records for processing. The entities are processed in the following sequence:

1. Process Header Record
2. Process Header Adjustments

3. Process Header Pricing Attributes
4. Process Header Adjustment Attributes
5. Process Header Adjustment Associations
6. Process Header Sales Credits
7. Check Entity context to make sure all lines belong to one header
8. Process Lines
9. Process Line Adjustments
10. Process Line Pricing Attributes
11. Process Line Adjustment Attributes
12. Process Line Adjustment Associations
13. Process Line Sales Credits
14. Process Line Lot Serial Numbers
15. Perform Cross Entity Logic for Sales Order business object

The procedure process_order performs the following actions for each entity on the order object:

Attribute Level Security Check If operation on the record is UPDATE or CREATE, then for all the attributes that have changed between the old and the new record, constraints are evaluated to check if the user is allowed to change the attribute. An error is raised if there was at least one attribute that failed security check and the record is not processed further.

Attribute Validation All the attributes that are passed in by the caller on the entity record are validated. Errors are posted to the OM message stack for all attributes that are invalid. An error is raised at the end if at least one attribute failed validation and the record is not processed further.

Clear Dependent Attributes If operation is UPDATE, then the fields dependent on the updated fields are cleared (or set to MISSING values). This is done so that the dependent fields are re-defaulted. For e.g. if the customer on the order is being updated, then the contacts, ship to and bill to on the order should be re-defaulted.

NOTE: If the user is also trying to update the dependent fields in the same call to the process order API, then the fields will not be cleared and the user-specified value will be used instead.

Defaulting Defaulting occurs for each missing attribute.

Attributes that are not explicitly passed by the user and therefore, retain the values on the initialized record are defined as MISSING attributes. For e.g. all the number fields on the entity records are initialized to the value FND_API.G_MISS_NUM and thus, all number fields with this value are MISSING attributes.

- Check security if new default value is different from old value and if there is a valid constraint, then an error is raised and abort processing of this record.
- Validate the default value if not null. If new default value is NOT valid, then set the attribute to NULL.
- If default value is valid, clear the dependent attributes (set to MISSING values).

Note: If the user has specified the values of these dependent attributes in the same call to process order, then the user-specified values will take preference and will not be cleared.

- Re-default all the missing attributes (dependent attributes) till all attributes have a value.

Record Validation

There are three main validation steps:

1. Check for Required Attributes. Validate that all the required attributes have been specified on the entity and even if one required attribute is missing, raise an error and quit. For e.g. inventory item is a required field on the order line entity.
2. Check for Conditionally Required Attributes. Validate that all attributes that are required based on the status of the entity have been specified and if at least one is not specified, raise an error and quit. For e.g. for a booked line, ship to location is required.
3. Cross-Attribute Validation. Validate all those attributes that are dependent on the value of another attribute. At the end of the validation, if at least one

attribute is not valid, then raise an error and quit. For e.g. verify that the ship to is valid for the customer.

Entity Security Check Entity level security check (constraints that are not attribute-specific) is done once again before the entity record is posted to database as defaulting may have changed the values of some attributes for e.g. ship set may have defaulted onto the line and there is a constraint against inserting a line into a ship set where all lines in the ship set have been invoiced.

Any constraints that may have been setup for DELETE operation on this entity are also evaluated here.

Database Write Write the changes to the database.

Cross Record Logic After all the records have been processed for one entity, other cross record logic like validations, automatic application of holds etc. is done. For e.g. after all records are processed for the entity *order sales credit*, validate that the total percent adds up to 100.

Cross Entity Logic After all the entities have been processed, cross entity logic is performed for the business object as a whole.

Note: In addition to the above a check is made to validate entity context for the line to ensure all lines belong to same header.

Start Processing Record

```
if operation        if operation
DELETE                      CREATE or UPDATE
Attribute Security Check
error
Attribute Validation
if operation                  if operation          error
CREATE                   UPDATE
Clear Dependent Attributes
Set the error
status on the record
Defaulting
error Rollback all changes.
Exit with error status
Record Validation
error
```

```
Entity Security Check
Database Write
Process
Next
Record  Record  Processed
Successfully
error
All records processed
Cross Record Logic error
All entities processed
Process Action Requests
Exit with Success Status
```

Setting Up the Process Order Procedure

Before using the API, set up and activate the following parameters:

- Version number
- Initialize message list
- Initialize the IN record parameters to be interfaced to missing values
- Setup the parameters on the records to be interfaced

Parameter Descriptions

The following chart describes all parameters used by the public API OE_ORDER_PUB.PROCESS_ORDER. All of the inbound and outbound parameters are listed. The OUT parameters have to be assigned when calling the API and are therefore marked as Required fields. Additional information on these parameters follows.

Table 2–14 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
p_api_ version_ number	IN	NUMBER	X		Used to compare the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible	
p_init_ msg_list	IN	Varchar2		X	Requests that the API initialize the message list on your behalf.	FND_ API.G_ FALSE
p_return_ values	IN	Varchar2		X	Requests that the API send back the values on your behalf.	FND_ API.G_ FALSE
x_return_ status	OUT	Varchar2	X		Returns the status, indicates whether the request was processed successfully or no Success: FND_API.G_RET_STS_ SUCCESS Error: FND_API.G_RET_STS_ ERROR Unexpected Error: FND_API.G_ RET_STS_UNEXP_ERROR	
x_msg_ count	OUT	NUMBER	X		Indicates number of error messages API has encountered. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call OE_MSG_ PUB.GET. This api can be called with the following parameter values: p_msg_index => I p_encoded => F p_data => 1_message p_msg_index_out => 1_msg_index_ out where 1_message and 1_msg_index_ out should be local variables of types Varchar2(2000 and Number respectively	

Table 2–14 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
x_msg_ data	OUT	Varchar2	X		Displays error message text. If the x_msg_count is equal to 1, then this contains the actual message	
p_header_ rec	IN	PL/SQL Record		X	Use this parameter to send in operations on the order header entity	G_MISS_ HEADER _REC
p_old_ header_rec	IN	PL/SQL Record		X	Use this parameter to send in the old record for the order header entity.	G_MISS_ HEADER _REC
p_header_ val_rec	IN	PL/SQL Record		X	Use this parameter to send in the display values for fields on the order header entity.	G_MISS_ HEADER _VAL_ REC
p_old_ header_ val_rec	IN	PL/SQL Record		X	Use this parameter to send in display values for the fields on the old record for the order header entity.	G_MISS_ HEADER _VAL_ REC
p_header_ adj_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the order price adjustment entities	G_MISS_ HEADER _ADJ_ TBL
p_old_ header_ adj_tbl	IN	PL/SQL Table		X	Use this parameter to send in the old records for the order price adjustment entities.	G_MISS_ HEADER _ADJ_TB
p_header_ adj_val_tbl	IN	PL/SQL Table		X	Use this parameter to send in the display values for fields on the order price adjustment entities	G_MISS_ HEADER _ADJ_ VAL_TBL
p_old_ header_ adj_val_tbl	IN	PL/SQL Table		X	Use this parameter to send in display values for the fields on the old records for the order price adjustment entities.	G_MISS_ HEADER _ADJ_ VAL_TBL

Table 2–14 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
p_header_price_att_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the order pricing Attributes entities	G_MISS_HEADER_PRICE_ATT_TBL
p_old_header_price_att_tbl	IN	PL/SQL Table		X	Use this parameter to send in the old records for the order pricing Attributes entities	G_MISS_HEADER_PRICE_ATT_TBL
p_header_adj_att_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the order Adjustment Attributes entities.	G_MISS_HEADER_ADJ_ATT_TBL
p_old_header_adj_att_tbl	IN	PL/SQL Table		X	Use this parameter to send in the old records for the order Adjustment Attributes entities.	G_MISS_HEADER_ADJ_ATT_TBL
p_header_adj_assoc_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the order Adjustment Associations entities.	G_MISS_HEADER_ADJ_ASSOC_TBL
p_old_header_adj_assoc_tbl	IN	PL/SQL Table		X	Use this parameter to send in the old records for the order Adjustment Associations entities.	G_MISS_HEADER_ADJ_ASSOC_TBL
p_header_scredit_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the order sales credits.	G_MISS_HEADER_SCREDIT_TBL
p_old_header_scredit_tbl	IN	PL/SQL Table		X	Use this parameter to send in the old record for the order sales credits.	G_MISS_HEADER_SCREDIT_TBL

Table 2–14 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
p_header_scredit_val_tbl	IN	PL/SQL Table		X	Use this parameter to send in the display values for fields on the order sales credits.	G_MISS_HEADER_SCREDIT_VAL_TBL
p_old_header_scredit_val_tbl	IN	PL/SQL Table		X	Use this parameter to send in display values for the fields on the old record for order sales credits.	G_MISS_HEADER_SCREDIT_VAL_TBL
p_line_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the order lines.	G_MISS_LINE_TBL
p_old_line_tbl	IN	PL/SQL Table		X	Use this parameter to send in the old records for the order lines.	G_MISS_LINE_TBL
p_line_val_tbl	IN	PL/SQL Table		X	Use this parameter to send in the display values for fields on the order lines.	G_MISS_LINE_VAL_TBL
p_old_line_val_tbl	IN	PL/SQL Table		X	Use this parameter to send in display values for the fields on the old records for order lines.	G_MISS_LINE_VAL_TBL
p_line_adj_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the line price adjustment entities.	G_MISS_LINE_ADJ_TBL
p_old_line_adj_tbl	IN	PL/SQL Table		X	Use this parameter to send in the old records for the line price adjustment entities.	G_MISS_LINE_ADJ_TBL
p_line_adj_val_tbl	IN	PL/SQL Table		X	Use this parameter to send in the display values for fields on the line price adjustment entities.	G_MISS_LINE_ADJ_VAL_TBL

Table 2–14 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
p_old_ line_adj_ val_tbl	IN	PL/SQL Table		X	Use this parameter to send in display values for the fields on the old records for the line price adjustment entities.	G_MISS_ LINE_ ADJ_ VAL_TBL
p_line_adj_ tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the Line pricing Attributes entities.	G_MISS_ LINE_ PRICE_ ATT_TBL
p_old_ line_adj_ tbl	IN	PL/SQL Table		X	Use this parameter to send in the old records for the Line pricing Attributes entities.	G_MISS_ LINE_ PRICE_ ATT_TBL
p_line_adj_ val_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the Line Adjustment Attributes entities.	G_MISS_ LINE_ ADJ_ ATT_TBL
p_old_ line_adj_ val_tbl	IN	PL/SQL Table		X	Use this parameter to send in the old records for the Line Adjustment Attributes entities.	G_MISS_ LINE_ ADJ_ ATT_TBL
p_line_ price_att_ tbl	IN	PL/SQL Table		X		
p_old_ line_price_ att_tbl	IN	PL/SQL Table		X		
p_line_adj_ att_tbl	IN	PL/SQL Table		X		
p_old_ line_adj_ att_tbl	IN	PL/SQL Table		X		
p_line_adj_ assoc_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the Line Adjustment Associations entities.	G_MISS_ LINE_ ADJ_ ASSOC_ TBL

Table 2–14 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
p_old_ line_adj_ assoc_tbl	IN	PL/SQL Table		X	Use this parameter to send in the old records for the Line Adjustment Associations entities.	G_MISS_ LINE_ ADJ_ ASSOC_ TBL
p_line_ scredit_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the line sales credits.	G_MISS_ LINE_ SCREDIT _TBL
p_old_ line_ scredit_tbl	IN	PL/SQL Table		X	Use this parameter to send in the old record for the line sales credits.	G_MISS_ LINE_ SCREDIT _TBL
p_line_ scredit_ val_tbl	IN	PL/SQL Table		X	Use this parameter to send in the display values for fields on the line sales credits	G_MISS_ LINE_ SCREDIT _VAL_ TBL
p_old_ line_ scredit_ val_tbl	IN	PL/SQL Table		X	Use this parameter to send in display values for the fields on the old record for line sales credits.	G_MISS_ LINE_ SCREDIT _VAL_ TBL
p_lot_ serial_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the lot serials.	G_MISS_ LOT_ SERIAL_ TBL
p_old_lot_ serial_tbl	IN	PL/SQL Table		X	Use this parameter to send in the old record for the lot serials.	G_MISS_ LOT_ SERIAL_ TBL
p_lot_ serial_val_ tbl	IN	PL/SQL Table		X	Use this parameter to send in the display values for fields on the lot serials.	G_MISS_ LOT_ SERIAL_ VAL_TBL

Table 2–14 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
p_old_lot_serial_val_tbl	IN	PL/SQL Table		X	Use this parameter to send in display values for the fields on the old record for lot serials.	G_MISS_LOT_SERIAL_VAL_TBL
p_action_request_tbl	IN	PL/SQL Table		X	Use this to send in requests to process other actions on the order	G_MISS_REQUEST_TBL
x_header_rec	OUT	PL/SQL Table	X		Returns the processed order header record.	
x_header_val_rec	OUT	PL/SQL Table	X		Returns the values for the processed order header record for the sales order if p_return_values was set to FND_API.G_TRUE	
x_header_adj_tbl	OUT	PL/SQL Table	X		Returns the records for the processed price adjustments	
x_header_adj_val_tbl	OUT	PL/SQL Table	X		Returns the values for the processed header price adjustments if p_return_values was set to FND_API.G_TRUE	
x_header_price_att_tbl	OUT	PL/SQL Table	X		Returns the records for the processed header pricing attributes	
x_header_adj_att_tbl	OUT	PL/SQL Table	X		Returns the records for the processed header adjustment attributes	
x_header_adj_assoc_tbl	OUT	PL/SQL Table	X		Returns the records for the processed header adjustment associations	
x_header_scredit_tbl	OUT	PL/SQL Table	X		Returns the records for the processed header adjustment associations	
x_header_scredit_val_tbl	OUT	PL/SQL Table	X		Returns the values for the processed header sales credits if p_return_values was set to FND_API.G_TRUE	

Table 2–14 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
x_line_tbl	OUT	PL/SQL Table	X		Returns the processed order lines.	
x_line_val_tbl	OUT	PL/SQL Table	X		Returns the values for the processed order lines if p_return_values was set to FND_API.G_TRUE	
x_line_adj_tbl	OUT	PL/SQL Table	X		Returns the processed line price adjustments for the sales order	
x_line_adj_val_tbl	OUT	PL/SQL Table	X		Returns the values for the processed line price adjustments for the sales order if p_return_values was set to FND_API.G_TRUE	
x_line_price_att_tbl	OUT	PL/SQL Table	X		Returns the records for the processed line adjustment attributes	
x_line_adj_att_tbl	OUT	PL/SQL Table	X		Returns the records for the processed line adjustment associations	
x_line_adj_assoc_tbl	OUT	PL/SQL Table	X		Returns the records for the processed line adjustment associations	
x_line_scredit_tbl	OUT	PL/SQL Table	X		Returns the processed sales credits.	
x_line_scredit_val_tbl	OUT	PL/SQL Table	X		Returns the values for the processed sales credits for the sales order if p_return_values was set to FND_API.G_TRUE	

Table 2–14 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
x_lot_ serial_tbl	OUT	PL/SQL Table	X		Returns the processed lot serials.	
x_lot_ serial_val_ tbl	OUT	PL/SQL Table	X		Returns the values for the processed lot serials if p_return_ values was set to FND_API.G_ TRUE	
x_action_ request_tbl	OUT	PL/SQL Table	X		Returns the status for each of the action requests that were passed to process order.	

Setting Up the Get_Order Procedure

Before using the API, set up and activate the following parameters:

- Version number
- Initialize message list
- Pass the header ID of the order to be queried

Parameter Descriptions

The following chart describes all parameters used by the public API OE_ORDER_ PUB.GET_ORDER. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 2–15 OE_ORDER_PUB.GET_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
p_api_version_number	IN	NUMBER	X		Used to compare the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.	
p_init_msg_list	IN	Varchar2		X	Requests that the API initialize the message list on your behalf.	FND_API.G_FALSE
p_return_values	IN	Varchar2		X	Requests that the API send back the values on your behalf.	FND_API.G_FALSE
p_commit	IN	Varchar2		X	Requests that the API update information for you after it completes its function.	FND_API.G_FALSE
x_return_status	OUT	Varchar2		X	Returns the status, indicates whether the request was processed successfully or not. Valid values include: *Success*: FND_API.G_RET_STS_SUCCESS *Error*: FND_API.G_RET_STS_ERROR *Unexpected Error*: FND_API.G_RET_STS_UNEXP_ERROR	

Table 2–15 OE_ORDER_PUB.GET_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
x_msg_count	OUT	NUMBER		X	Indicates number of error messages API has encountered. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call OE_MSG_PUB.GET. This api can be called with the following parameter values: p_msg_index => I p_encoded => F p_data => 1_message p_msg_index_out => 1_msg_index_out where 1_message and 1_msg_index_out should be local variables of types Varchar2(2000) and Number respectively.	
x_msg_data	OUT	Varchar2			Displays error message text. If the x_msg_count is equal to 1, then this contains the actual message.	
p_header_id	IN	NUMBER	X		Parameter to identify the sales order that is to be queried.	FND_API.G_MISS_NUM
p_header	IN	Varchar2		X		
x_header_rec	OUT	PL/SQL Table	X		Returns the queried order header record for the sales order.	
x_header_val_rec	OUT	PL/SQL Table	X		Returns the values for the queried order header record for the sales order if p_return_values was set to FND_API.G_TRUE	

Table 2–15 OE_ORDER_PUB.GET_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
x_header_adj_tbl	OUT	PL/SQL Table	X		Returns the queried header price adjustments for the sales order.	
x_header_adj_val_tbl	OUT	PL/SQL Table	X		Returns the values for the queried header price adjustments for the sales order if p_return_values was set to FND_API.G_TRUE	
x_header_price_att_tbl	OUT	PL/SQL Table	X			
x_header_adj_att_tbl	OUT	PL/SQL Table	X			
x_header_adj_assoc_tbl	OUT	PL/SQL Table	X			
x_header_scredit_tbl	OUT	PL/SQL Table	X		Returns the queried header sales credits for the sales order.	
x_header_scredit_val_tbl	OUT	PL/SQL Table	X		Returns the values for the queried header sales credits for the sales order if p_return_values was set to FND_API.G_TRUE	
x_line_tbl	OUT	PL/SQL Table	X		Returns the queried order lines for the sales order.	
x_line_val_tbl	OUT	PL/SQL Table	X		Returns the values for the queried order lines for the sales order if p_return_values was set to FND_API.G_TRUE	
x_line_adj_tbl	OUT	PL/SQL Table	X		Returns the queried line price adjustments for the sales order	

Table 2–15 OE_ORDER_PUB.GET_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
x_line_adj_val_tbl	OUT	PL/SQL Table	X		Returns the values for the queried line price adjustments for the sales order if p_return_values was set to FND_API.G_TRUE	
x_line_price_att_tbl	OUT	PL/SQL Table	X			
x_line_adj_att_tbl	OUT	PL/SQL Table	X			
x_line_adj_assoc_tbl	OUT	PL/SQL Table	X			
x_line_scredit_tbl	OUT	PL/SQL Table	X		Returns the queried line sales credits for the sales order.	
x_line_scredit_val_tbl	OUT	PL/SQL Table	X		Returns the values for the queried line sales credits for the sales order if p_return_values was set to FND_API.G_TRUE	
x_lot_serial_tbl	OUT	PL/SQL Table	X		Returns the queried lot serials for the sales order.	
x_lot_serial_val_tbl	OUT	PL/SQL Table	X		Returns the values for the queried lot serials for the sales order if p_return_values was set to FND_API.G_TRUE	

Setting Up the Lock_Order Procedure

Before using the API, set up and activate the following parameters:

- Version number
- Initialize message list
- Query all the entities for the sales order using the Get_Order procedure.

- Set the operation parameter to OE_GLOBALS.G_OPR_LOCK only on the entity records to be locked in this call.

Parameter Descriptions

The following chart describes all parameters used by the public API OE_ORDER_PUB.LOCK_ORDER. All of the inbound and outbound parameters are listed. The OUT parameters have to be assigned when calling the API and are therefore marked as Required fields. Additional information on these parameters follows.

Table 2–16 OE_ORDER_PUB.LOCK_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
p_api_version_number	IN	NUMBER	X		Used to compare the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.	
p_init_msg_list	IN	Varchar2		X	Requests that the API initialize the message list on your behalf.	FND_API.G_FALSE
p_return_values	IN	Varchar2		X	Requests that the API send back the values on your behalf.	FND_API.G_FALSE
x_return_status	OUT	Varchar2	X		Returns the status, indicates whether the request was processed successfully or not. Valid values include: *Success*: FND_API.G_RET_STS_SUCCESS *Error*: FND_API.G_RET_STS_ERROR *Unexpected Error*: FND_API.G_RET_STS_UNEXP_ERROR	

Table 2–16 OE_ORDER_PUB.LOCK_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
x_msg_count	OUT	NUMBER	X		Indicates number of error messages API has encountered. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call OE_MSG_ PUB.GET. This api can be called with the following parameter values: p_msg_index => I p_encoded => F p_data => 1_message p_msg_index_out => 1_msg_ index_out where 1_message and 1_msg_ index_out should be local variables of types Varchar2(2000) and Number respectively.	
x_msg_data	OUT	Varchar2	X		Displays error message text. If the x_msg_count is equal to 1, then this contains the actual message.	
p_header_rec	IN	PL/SQL Record		X	Use this parameter to send in operations on the order header entity.	G_MISS_ HEADER _REC
p_header_val_ rec	IN	PL/SQL Record		X	Use this parameter to send in the display values for fields on the order header entity.	G_MISS_ HEADER _VAL_ REC
p_header_adj_ tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the order price adjustment entities.	G_MISS_ HEADER _ADJ_ TBL
p_header_adj_ val_tbl	IN	PL/SQL Table		X	Use this parameter to send in the display values for fields on the order price adjustment entities.	G_MISS_ HEADER _ADJ_ VAL_TBL

Table 2–16 OE_ORDER_PUB.LOCK_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
p_header_ price_att_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the order pricing Attributes entities.	G_MISS_ HEADER _PRICE_ ATT_TBL
p_header_adj_ att_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the order Adjustment Attributes entities.	G_MISS_ HEADER _ADJ_ ATT_TBL
p_header_adj_ assoc_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the order Adjustment Associations entities.	G_MISS_ HEADER _ADJ_ ASSOC_ TBL
p_header_ scredit_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the order sales credits.	G_MISS_ HEADER _ SCREDIT _TBL
p_header_ scredit_val_tbl	IN	PL/SQL Table		X	Use this parameter to send in the display values for fields on the order sales credits.	G_MISS_ HEADER _ SCREDIT _VAL_ TBL
p_line_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the order lines.	G_MISS_ LINE_ TBL
p_line_val_tbl	IN	PL/SQL Table		X	Use this parameter to send in the display values for fields on the order lines.	G_MISS_ LINE_ VAL_TBL
p_line_adj_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the line price adjustment entities.	G_MISS_ LINE_ ADJ_TBL

Table 2–16 OE_ORDER_PUB.LOCK_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
p_line_adj_val_tbl	IN	PL/SQL Table		X	Use this parameter to send in the display values for fields on the line price adjustment entities.	G_MISS_LINE_ADJ_VAL_TBL
p_line_adj_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the Line pricing Attributes entities.	G_MISS_LINE_PRICE_ATT_TBL
p_line_adj_val_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the Line Adjustment Attributes entities.	G_MISS_LINE_ADJ_ATT_TBL
p_line_adj_assoc_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the Line Adjustment Associations entities.	G_MISS_LINE_ADJ_ASSOC_TBL
p_line_scredit_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the line sales credits.	G_MISS_LINE_SCREDIT_TBL
p_line_scredit_val_tbl	IN	PL/SQL Table		X	Use this parameter to send in the display values for fields on the line sales credits.	G_MISS_LINE_SCREDIT_VAL_TBL
p_lot_serial_tbl	IN	PL/SQL Table		X	Use this parameter to send in operations on the lot serials.	G_MISS_LOT_SERIAL_TBL
p_lot_lot_serial_val_tbl	IN	PL/SQL Table		X	Use this parameter to send in the display values for fields on the lot serials.	G_MISS_LOT_SERIAL_VAL_TBL
x_header_rec	OUT	PL/SQL Table	X		Returns the processed order header record.	

Table 2–16 OE_ORDER_PUB.LOCK_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
x_header_val_rec	OUT	PL/SQL Table	X		Returns the values for the processed order header record for the sales order if p_return_values was set to FND_API.G_TRUE	
x_header_adj_tbl	OUT	PL/SQL Table	X		Returns the records for the processed price adjustments	
x_header_adj_val_tbl	OUT	PL/SQL Table	X		Returns the values for the processed header price adjustments if p_return_values was set to FND_API.G_TRUE	
x_header_price_att_tbl	OUT	PL/SQL Table	X		Returns the records for the processed header pricing attributes	
x_header_adj_att_tbl	OUT	PL/SQL Table	X		Returns the records for the processed header adjustment attributes	
x_header_adj_assoc_tbl	OUT	PL/SQL Table	X		Returns the records for the processed header adjustment associations	
x_header_scredit_tbl	OUT	PL/SQL Table	X		Returns the records for the processed header adjustment associations	
x_header_scredit_val_tbl	OUT	PL/SQL Table	X		Returns the values for the processed header sales credits if p_return_values was set to FND_API.G_TRUE	
x_line_tbl	OUT	PL/SQL Table	X		Returns the processed order lines.	
x_line_val_tbl	OUT	PL/SQL Table	X		Returns the values for the processed order lines if p_return_values was set to FND_API.G_TRUE	

Table 2–16 OE_ORDER_PUB.LOCK_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
x_line_adj_tbl	OUT	PL/SQL Table	X		Returns the processed line price adjustments for the sales order	
x_line_adj_val_tbl	OUT	PL/SQL Table	X		Returns the values for the processed line price adjustments for the sales order if p_return_values was set to FND_API.G_TRUE	
x_line_price_att_tbl	OUT	PL/SQL Table	X		Returns the records for the processed line adjustment attributes	
x_line_adj_att_tbl	OUT	PL/SQL Table	X			
x_line_adj_assoc_tbl	OUT	PL/SQL Table	X		Returns the records for the processed line adjustment associations	
x_line_scredit_tbl	OUT	PL/SQL Table	X		Returns the processed sales credits.	
x_line_scredit_val_tbl	OUT	PL/SQL Table	X	X	Returns the values for the processed sales credits for the sales order if p_return_values was set to FND_API.G_TRUE	
x_lot_serial_tbl	OUT	PL/SQL Table	X		Returns the processed lot serials.	
x_lot_serial_val_tbl	OUT	PL/SQL Table	X		Returns the values for the processed lot serials if p_return_values was set to FND_API.G_TRUE	

PL/SQL Record Structures

All the columns on the underlying order management tables are available on the record types that can be passed to the process order API. However, callers cannot provide values for certain columns via the public process order API. Such columns

are marked as *Derived* columns as these are derived internally and updated by the API. If user provides values for these fields, it could result in data corruption.

For each column (if the record type is not a value record type, val_rec_type), the following information has been documented:

- **Datatype**: data type for this field
- **Required**: ***X*** if required at entry, ***C*** if conditionally required
- **Required at Booking**: ***X*** if required at booking, ***C*** if required at booking based on some other conditions.
- **Derived**: For internal use, users cannot update these fields.
- **Optional**: ***X*** if users can either provide values for these fields or could be defaulted.

The value record structures have all fields that can be optionally passed instead of the identifier. If the identifier field is not passed when required, the value field can be passed instead and the value will be resolved into the identifier.

These record and table structures are defined in the specifications of the process order API, OE_ORDER_PUB.

Header_Rec_Type

For column descriptions, please refer to the Order Management TRM for the table OE_ORDER_HEADERS_ALL.

- Please note that columns attribute1 - attribute15 are currently defined as VARCHAR2(240), but only the first 150 characters are passed to Oracle Receivables during Invoice Interface. These columns contain Additional Header Information Descriptive Flexfield data

Table 2–17 OE_ORDER_HEADERS_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
accounting_rule_id	NUMBER				X
agreement_id	NUMBER		C - if order type requires		X
attribute1.... attribute15	VARCHAR2(240)				X
booked_flag	VARCHAR2(1)			X	

Table 2–17 OE_ORDER_HEADERS_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
cancelled_flag	VARCHAR2(1)				X
context	VARCHAR2(30)				X
conversion_rate	NUMBER		C - if conversion type is *User*		X
conversion_rate_date	DATE		C - if conversion type is *User*		X
conversion_type_code	VARCHAR2(30)		C - if order currency not same as SOB currency		X
customer_preference_set_code	VARCHAR2(30)				X
created_by	NUMBER			X	
creation_date	DATE			X	
cust_po_number	VARCHAR2(50)		C - if order type requires		X
deliver_to_contact_id	NUMBER				X
deliver_to_org_id	NUMBER				X
demand_class_code	VARCHAR2(30)				X
earliest_schedule_limit	NUMBER			X	
expiration_date	DATE			X	
fob_point_code	VARCHAR2(30)				X
freight_carrier_code	VARCHAR2(30)			X	
freight_terms_code	VARCHAR2(30)				X
global_attribute1...20	VARCHAR2(240)				X
global_attribute_category	VARCHAR2(30)				X
tp_context	VARCHAR2(30)				X

Table 2–17 OE_ORDER_HEADERS_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
tp_attribute1.... tp_attribute15	VARCHAR2(240)				X
header_id	NUMBER	C - for UPDATE & DELETE operations			X
invoice_to_contact_id	NUMBER				X
invoice_to_org_id	NUMBER		X		
invoicing_rule_id	NUMBER				X
last_updated_by	NUMBER			X	
last_update_date	DATE			X	
last_update_login	NUMBER			X	
latest_schedule_limit	NUMBER				X
open_flag	VARCHAR2(1)			X	
order_category_code	VARCHAR2(30)			X	
ordered_date	DATE		X		X
order_date_type_code	VARCHAR2(30)				X
order_number	NUMBER	C - for manual order types			X
order_source_id	NUMBER				X
order_type_id	NUMBER	X			
org_id	NUMBER			X	
orig_sys_document_ref	VARCHAR2(50)				X
partial_shipments_allowed	VARCHAR2(1)			X	
payment_term_id	NUMBER		C - for order lines, not return lines		X
price_list_id	NUMBER		X		X

Table 2–17 OE_ORDER_HEADERS_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
pricing_date	DATE	X			X
program_application_id	NUMBER				X
program_id	NUMBER				X
program_update_date	DATE				X
request_date	DATE				X
request_id	NUMBER				X
return_reason_code	VARCHAR2(30)				X
salesrep_id	NUMBER		X		X
sales_channel_code	VARCHAR2(30)				X
shipment_priority_code	VARCHAR2(30)				X
shipping_method_code	VARCHAR2(30)				X
ship_from_org_id	NUMBER		C - for return lines		
ship_tolerance_above	NUMBER				X
ship_tolerance_below	NUMBER				X
ship_to_contact_id	NUMBER				X
ship_to_org_id	NUMBER		C - for order lines, not return lines		
sold_from_org_id	NUMBER		X		
sold_to_contact_id	NUMBER				X
sold_to_org_id	NUMBER		X		X
source_document_id	NUMBER				X
source_document_type_id	NUMBER				X
tax_exempt_flag	VARCHAR2(30)		X		X
tax_exempt_number	VARCHAR2(50)				X
tax_exempt_reason_code	VARCHAR2(30)	C - if tax exempt flag is *Exempt*			X

Table 2–17 OE_ORDER_HEADERS_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
tax_point_code	VARCHAR2(30)				for future use
transactional_curr_code	VARCHAR2(3)	X			
version_number	NUMBER			X	
return_status	VARCHAR2(1)			X	
db_flag	VARCHAR2(1)			X	
operation	VARCHAR2(30)	X			
first_ack_code	VARCHAR2(30)			X	
first_ack_date	DATE			X	
last_ack_code	VARCHAR2(30)			X	
last_ack_date	DATE			X	
change_reason	VARCHAR2(30)	C -if constraints setup requires reason			X
change_comments	VARCHAR2(2000)				X
change_sequence	VARCHAR2(50)			X	
change_request_code	VARCHAR2(30)			X	
ready_flag	VARCHAR2(1)			X	
status_flag	VARCHAR2(1)			X	
force_apply_flag	VARCHAR2(1)			X	
drop_ship_flag	VARCHAR2(1)			X	
customer_payment_term_id	Obsolete	Obsolete	Obsolete	Obsolete	Obsolete
payment_type_code	VARCHAR2(30)				X
payment_amount	NUMBER		C - if payment type other than ***Credit Card***		
check_number	VARCHAR2(50)		C - if payment type is *Check*		

Table 2–17 OE_ORDER_HEADERS_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
credit_card_code	VARCHAR2(80)				X
credit_card_holder_name	VARCHAR2(80)		C - if payment type is *Credit Card*		
credit_card_number	VARCHAR2(80)		C - if payment type *Credit Card*		
credit_card_expiration_date	DATE		C - if payment type *Credit Card*		
credit_card_approval_code	VARCHAR2(80)			X	X
credit_card_approval_date	DATE			X	
shipping_instructions	VARCHAR2(2000)				X
packing_instructions	VARCHAR2(2000)				X
flow_status_code	VARCHAR2(30)			X	
booked_date	DATE			X	
marketing_source_code_id	NUMBER				X

```
 TYPE Header_Tbl_Type IS TABLE OF Header_Rec_Type
INDEX BY BINARY_INTEGER;
```

Header_Val_Rec_Type

Table 2–18 Header_Val_Rec_Type

Parameter accounting_rule
agreement
conversion_type
deliver_to_address1
deliver_to_address2
deliver_to_address3

Table 2–18 Header_Val_Rec_Type

Parameter accounting_rule
deliver_to_address4
deliver_to_contact
deliver_to_location
deliver_to_org
demand_class
fob_point
freight_terms
invoice_to_address1
invoice_to_address2
invoice_to_address3
invoice_to_address4
invoice_to_contact
invoice_to_location
invoice_to_org
invoicing_rule
order_source
order_type
payment_term
price_list
return_reason
salesrep
shipment_priority
ship_from_address1
ship_from_address2
ship_from_address3
ship_from_address4
ship_from_location

Table 2–18 Header_Val_Rec_Type

Parameter accounting_rule
ship_from_org
ship_to_address1
ship_to_address2
ship_to_address3
ship_to_address4
ship_to_contact
ship_to_location
ship_to_org
sold_to_contact
sold_to_org
sold_from_org
tax_exempt
tax_exempt_reason
tax_point
customer_payment_term - *obsolete*
payment_type
credit_card
status
freight_carrier
shipping_method
order_date_type
customer_number
sales_channel

TYPE Header_Val_Tbl_Type IS TABLE OF Header_Val_Rec_Type
INDEX BY BINARY_INTEGER;

Header_Adj_Rec_Type

For column descriptions, please refer to the Order Management TRM for the table OE_PRICE_ADJUSTMENTS

Table 2–19 OE_PRICE_ADJUSTMENTS

Parameter	Datatype	Required	Derived	Optional
attribute1 - attribute15	VARCHAR2(240)			
automatic_flag	VARCHAR2(1)	X	qp_list_lines	
context	VARCHAR2(30)			X
created_by	NUMBER		X	
creation_date	DATE		X	
discount_id	NUMBER		X	
discount_line_id	NUMBER		X	
header_id	NUMBER	X		
last_updated_by	NUMBER		X	
last_update_date	DATE		X	
last_update_login	NUMBER		X	
percent	NUMBER		X	
price_adjustment_id	NUMBER	C -for update and delete		X
program_application_id	NUMBER			X
program_id	NUMBER			X
program_update_date	DATE			X
request_id	NUMBER			X
return_status	VARCHAR2(1)		X	
db_flag	VARCHAR2(1)		X	
operation	VARCHAR2(30)	X		
line_index	NUMBER			X
orig_sys_discount_ref	VARCHAR2(50)			X
change_request_code	VARCHAR2(30)		X	
status_flag	VARCHAR2(1)		X	

Table 2–19 OE_PRICE_ADJUSTMENTS

Parameter	Datatype	Required	Derived	Optional
list_header_id	NUMBER	C - not required only for tax records		
list_line_id	NUMBER	C - not required only for tax records		
list_line_type_code	VARCHAR2(30)		X	
modifier_mechanism_type_code	VARCHAR2(30)		X	
modified_from	NUMBER		X	
modified_to	NUMBER		X	
updated_flag	VARCHAR2(1)		X	
update_allowed	VARCHAR2(1)		X	
applied_flag	VARCHAR2(1)			
change_reason_code	VARCHAR2(30)			X
change_reason_text	VARCHAR2(2000)			X
operand	NUMBER			X
operand_per_pqty	NUMBER			X
arithmetic_operator	VARCHAR2(30)		X	
cost_id	NUMBER		X	
tax_code	VARCHAR2(30)			
tax_exempt_flag	VARCHAR2(1)			
tax_exempt_number	VARCHAR2(80)			
tax_exempt_reason_code	VARCHAR2(30)			
parent_adjustment_id	NUMBER	X -for update and delete		
invoiced_flag	VARCHAR2(1)		X	
estimated_flag	VARCHAR2(1)		X	
inc_in_sales_performance	VARCHAR2(1)		X	
split_action_code	VARCHAR2(30)			X
adjusted_amount	NUMBER		X	

Table 2–19 OE_PRICE_ADJUSTMENTS

Parameter	Datatype	Required	Derived	Optional
adjusted_amount_per_pqty	NUMBER		X	
pricing_phase_id	NUMBER		X	
charge_type_code	VARCHAR2(30)		X	
charge_subtype_code	VARCHAR2(30)		X	
list_line_no	VARCHAR2(240)		X	
source_system_code	VARCHAR2(30)		X	
benefit_qty	NUMBER		X	
benefit_uom_code	VARCHAR2(3)		X	
print_on_invoice_flag	VARCHAR2(1)		X	
expiration_date	DATE		X	
rebate_transaction_type_code	VARCHAR2(30)		X	
rebate_transaction_reference	VARCHAR2(80)		X	
rebate_payment_system_code	VARCHAR2(30)		X	
redeemed_date	DATE		X	
redeemed_flag	VARCHAR2(1)		X	
accrual_flag	VARCHAR2(1)		X	
range_break_quantity	NUMBER		X	
accrual_conversion_rate	NUMBER		X	
pricing_group_sequence	NUMBER		X	
modifier_level_code	VARCHAR2(30)		X	
price_break_type_code	VARCHAR2(30)		X	
substitution_attribute	VARCHAR2(30)		X	
proration_type_code	VARCHAR2(30)		X	
credit_or_charge_flag	VARCHAR2(1)		X	

Table 2–19 OE_PRICE_ADJUSTMENTS

Parameter	Datatype	Required	Derived	Optional
include_on_returns_flag	VARCHAR2(1)		X	
ac_attribute1... ac_attribute15	VARCHAR2(240)			X
ac_context	VARCHAR2(150)			X

TYPE Header_Adj_Tbl_Type IS TABLE OF Header_Adj_Rec_Type

INDEX BY BINARY_INTEGER;

Header_Adj_Val_Rec_Type

Table 2–20 Header_Adj_Val_Rec_Type

Header_Adj_Val_Rec_Type
Parameter
discount
list_name

TYPE Header_Adj_Val_Tbl_Type IS TABLE OF Header_Adj_Val_Rec_Type

INDEX BY BINARY_INTEGER;

Header_Price_Att_Rec_Type

For column descriptions, please refer to the Order Management TRM for the table OE_ORDER_PRICE_ATTRIBS

Table 2–21 OE_ORDER_PRICE_ATTRIBS

Parameter	Datatype	Required	Derived	Optional
order_price_attrib_id	NUMBER	X -for update and delete		X
header_id	NUMBER	X		
creation_date	DATE		X	
created_by	NUMBER		X	
last_update_date	DATE		X	

Table 2–21 OE_ORDER_PRICE_ATTRIBS

Parameter	Datatype	Required	Derived	Optional
last_updated_by	NUMBER		X	
last_update_login	NUMBER		X	
program_application_id	NUMBER			X
program_id	NUMBER			X
program_update_date	DATE			X
request_id	NUMBER			X
flex_title	VARCHAR2(60)	X		
pricing_context	VARCHAR2(30)	X		
pricing_attribute1... pricing_attribute100	VARCHAR2(240)	at least one of these columns should have a value		X
context	VARCHAR2(30)			X
attribute1... attribute15	VARCHAR2(240)			X
Override_Flag	VARCHAR2(1)			X
return_status	VARCHAR2(1)		X	
db_flag	VARCHAR2(1)		X	
operation	VARCHAR2(30)	X		

TYPE Header_Price_Att_Tbl_Type is TABLE of Header_Price_Att_rec_Type

INDEX by BINARY_INTEGER

Header_Adj_Att_Rec_Type

For column descriptions, please refer to the Order Management TRM for the table OE_PRICE_ADJ_ATTRIBS.

Table 2–22 OE_PRICE_ADJ_ATTRIBS

Parameter	Datatype	Required	Derived	Optional
price_adj_attrib_id	NUMBER	C -for update and delete		
price_adjustment_id	NUMBER	C - if adj_index not passed		
cdj_index	NUMBER	C - if price_adjustment_id not passed		
flex_title	VARCHAR2(60)	X		
pricing_context	VARCHAR2(30)	X		
pricing_attribute	VARCHAR2(30)	X		
creation_date	DATE		X	
created_by	NUMBER		X	
last_update_date	DATE		X	
last_updated_by	NUMBER		X	
last_update_login	NUMBER		X	
program_application_id	NUMBER			X
program_id	NUMBER			X
program_update_date	DATE			X
request_id	NUMBER			X
pricing_attr_value_from	VARCHAR2(240)	X		
pricing_attr_value_to	VARCHAR2(240)			X
comparison_operator	VARCHAR2(30)			X
return_status	VARCHAR2(1)		X	
db_flag	VARCHAR2(1)		X	
operation	VARCHAR2(30)			

TYPE Header_Adj_Att_Rec_Type is TABLE of Header_Adj_Att_rec_Type INDEX by BINARY_INTEGER;

Type Header_Adj_Assoc_Rec_Type is RECORD

For column descriptions, please refer to the Order Management TRM for the table:

OE_PRICE_ADJ_ASSOCS

Table 2–23 OE_PRICE_ADJ_ASSOCS

Parameter	Datatype	Required	Derived	Optional
price_adj_assoc_id	NUMBER	C - for update and delete		
line_id	NUMBER			
Line_Index	NUMBER			
price_adjustment_id	NUMBER	C - if adj_index not passed		
Adj_index	NUMBER	C - if price_ adjustment_id not passed		
rltd_Price_Adj_Id	NUMBER			X
Rltd_Adj_Index	NUMBER			X
creation_date	DATE		X	
created_by	NUMBER		X	
last_update_date	DATE		X	
last_updated_by	NUMBER		X	
last_update_login	NUMBER		X	
program_application_id	NUMBER			X
program_id	NUMBER			X
program_update_date	DATE			X
request_id	NUMBER			X
return_status	VARCHAR2(1)		X	
db_flag	VARCHAR2(1)		X	
operation	VARCHAR2(3 0)			X

TYPE Header_Adj_Assoc_Tbl_Type is TABLE of Header_Adj_Assoc_rec_Type INDEX by BINARY_INTEGER;

TYPE Header_Scredit_Rec_Type IS RECORD

For column descriptions, please refer to the Order Management TRM for the table:

OE_SALES_CREDITS

Table 2–24 OE_SALES_CREDITS

Parameter	Datatype	Required	Derived	Optional
attribute1... attribute15	VARCHAR2(240)			X
context	VARCHAR2(30)			X
created_by	NUMBER		X	
creation_date	DATE		X	
dw_update_advice_ flag	VARCHAR2(1)			X
header_id	NUMBER			X
last_updated_by	NUMBER		X	
last_update_date	DATE		X	
last_update_login	NUMBER		X	
percent	NUMBER	X		
salesrep_id	NUMBER	X		
sales_credit_type_id	NUMBER	X		
sales_credit_id	NUMBER			X
wh_update_date	DATE			X
return_status	VARCHAR2(1)		X	
db_flag	VARCHAR2(1)		X	
operation	VARCHAR2(30)	X		
orig_sys_credit_ref	VARCHAR2(50)			X
change_request_code	VARCHAR2(30)		X	
status_flag	VARCHAR2(1)		X	

TYPE Header_Scredit_Tbl_Type IS TABLE OF Header_Scredit_Rec_Type

INDEX BY BINARY_INTEGER;

TYPE Header_Scredit_Val_Rec_Type IS RECORD

(salesrep, sales_credit_type);

TYPE Header_Scredit_Val_Tbl_Type IS TABLE OF Header_Scredit_Val_Rec_Type

INDEX BY BINARY_INTEGER;

Line_Rec_Type

For column descriptions, please refer to the Order Management TRM for the table OE_ORDER_LINES_ALL

- Please note that columns attribute1 - attribute15 are currently defined as VARCHAR2(240), but only the first 150 characters are passed to Oracle Receivables during Invoice Interface. These columns contain Additional Order Information Descriptive Flexfield data

Table 2–25 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
accounting_rule_id	NUMBER				X
actual_arrival_date	DATE			X	
actual_shipment_date	DATE			X	
agreement_id	NUMBER				X
arrival_set_id	NUMBER				X
ato_line_id	NUMBER			X	
attribute1...attribute15	VARCHAR2(240)				X
authorized_to_ship_flag	VARCHAR2(1)				X
auto_selected_quantity	NUMBER			X	
booked_flag	VARCHAR2(1)			X	
cancelled_flag	VARCHAR2(1)			X	
cancelled_quantity	NUMBER			X	
cancelled_quantity2	NUMBER			X	
commitment_id	NUMBER				X

Table 2–25 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
component_code	VARCHAR2(1000)				X
component_number	NUMBER			X	
component_sequence_id	NUMBER			X	
config_header_id	NUMBER			X	X
config_rev_nbr	NUMBER			X	X
config_display_sequence	NUMBER			X	
configuration_id	NUMBER			X	X
context	VARCHAR2(30)				X
created_by	NUMBER			X	
creation_date	DATE			X	
credit_invoice_line_id	NUMBER			X	
customer_dock_code	VARCHAR2(50)				X
customer_job	VARCHAR2(50)				X
customer_production_line	VARCHAR2(50)				X
customer_trx_line_id	NUMBER			X	
cust_model_serial_ number	VARCHAR2(50)				X
cust_po_number	VARCHAR2(50)				X
cust_production_seq_num	VARCHAR2(50)				X
delivery_lead_time	NUMBER				X
deliver_to_contact_id	NUMBER				X
deliver_to_org_id	NUMBER				X
demand_bucket_type_ code	VARCHAR2(30)				X
demand_class_code	VARCHAR2(30)				X
dep_plan_required_flag	VARCHAR2(1)				X
earliest_acceptable_date	DATE			X	

Table 2–25 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
end_item_unit_number	VARCHAR2(30)	C - depends on the item			X
explosion_date	DATE			X	
fob_point_code	VARCHAR2(30)				X
freight_carrier_code	VARCHAR2(30)			X	
freight_terms_code	VARCHAR2(30)				X
fulfilled_quantity	NUMBER			X	
fulfilled_quantity2	NUMBER			X	
global_attribute1...20	VARCHAR2(240)				X
global_attribute_category	VARCHAR2(30)				X
header_id	NUMBER				X
industry_attribute1...30	VARCHAR2(240)				X
industry_context	VARCHAR2(30)				X
tp_context	VARCHAR2(30)				X
tp_attribute1...15	VARCHAR2(240)				X
intermed_ship_to_org_id	NUMBER				X
intermed_ship_to_ contact_id	NUMBER				X
inventory_item_id	NUMBER	X			
invoice_interface_status_ code	VARCHAR2(30)			X	X
invoice_to_contact_id	NUMBER				X
invoice_to_org_id	NUMBER		X		X
invoicing_rule_id	NUMBER				X
ordered_item	VARCHAR2(2000)	C: for *Generic* Items			
item_revision	VARCHAR2(3)				X
item_type_code	VARCHAR2(30)			X	

Table 2–25 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
last_updated_by	NUMBER			X	
last_update_date	DATE			X	
last_update_login	NUMBER			X	
latest_acceptable_date	DATE				X
line_category_code	VARCHAR2(30)			X	X
line_id	NUMBER	C - for UPDATE & DELETE operations			
line_number	NUMBER				X
line_type_id	NUMBER	X			X
link_to_line_ref	VARCHAR2(50)				X
link_to_line_id	NUMBER			X	
link_to_line_index	NUMBER				X
model_group_number	NUMBER			X	
mfg_component_ sequence_id	NUMBER			X	
open_flag	VARCHAR2(1)			X	
option_flag	VARCHAR2(1)			X	
option_number	NUMBER			X	
ordered_quantity	NUMBER		X		X
ordered_quantity2	NUMBER				X
order_quantity_uom	VARCHAR2(3)		X		X
ordered_quantity_uom2	VARCHAR2(3)			X	
org_id	NUMBER			X	
orig_sys_document_ref	VARCHAR2(50)				X
orig_sys_line_ref	VARCHAR2(50)				X
over_ship_reason_code	VARCHAR2(30)			X	
over_ship_resolved_flag	VARCHAR2(1)				X

Table 2–25 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
payment_term_id	NUMBER		C- for order lines, not return lines		X
planning_priority	NUMBER			X	
preferred_grade	VARCHAR2(4)				X
price_list_id	NUMBER		X		
pricing_attribute1... pricing_attribute10	VARCHAR2(240)			X	
pricing_context	VARCHAR2(240)			X	
pricing_date	DATE				X
pricing_quantity	NUMBER			X	
pricing_quantity_uom	VARCHAR2(3)			X	
program_application_id	NUMBER				X
program_id	NUMBER				X
program_update_date	DATE				X
project_id	NUMBER				X
promise_date	DATE				X
re_source_flag	VARCHAR2(1)			X	
reference_customer_trx_ line_id	NUMBER			X	
reference_header_id	NUMBER			X	
reference_line_id	NUMBER			X	
reference_type	VARCHAR2(30)			X	
request_date	DATE				X
request_id	NUMBER				X
reserved_quantity	NUMBER				X
return_attribute1... return_attribute15	VARCHAR2(240)				X

Table 2–25 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
return_context	VARCHAR2(30)				X
return_reason_code	VARCHAR2(30)	C - for return lines only			
rla_schedule_type_code	VARCHAR2(30)				X
salesrep_id	NUMBER				X
schedule_arrival_date	DATE				X
schedule_ship_date	DATE				X
schedule_action_code	VARCHAR2(30)				X
schedule_status_code	VARCHAR2(30)			X	
shipment_number	NUMBER			X	
shipment_priority_code	VARCHAR2(30)				X
shipped_quantity	NUMBER			X	
shipped_quantity2	NUMBER			X	
shipping_interfaced_flag	VARCHAR2(1)			X	
shipping_method_code	VARCHAR2(30)				X
shipping_quantity	NUMBER			X	
shipping_quantity2	NUMBER			X	
shipping_quantity_uom	VARCHAR2(3)			X	
shipping_quantity_uom2	VARCHAR2(3)			X	
ship_from_org_id	NUMBER		C - for return lines		X
ship_model_complete_ flag	VARCHAR2(30)			X	
ship_set_id	NUMBER				X
fulfillment_set_id	NUMBER				X
ship_tolerance_above	NUMBER				X
ship_tolerance_below	NUMBER				X
ship_to_contact_id	NUMBER				X

Table 2–25 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
ship_to_org_id	NUMBER		C - for order lines, not return lines		X
sold_to_org_id	NUMBER		X		
sold_from_org_id	NUMBER		X		
sort_order	VARCHAR2(240)			X	
source_document_id	NUMBER				X
source_document_line_id	NUMBER				X
source_document_type_id	NUMBER				X
source_type_code	VARCHAR2(30)				X
split_from_line_id	NUMBER				X
task_id	NUMBER	C - depends on the project			
tax_code	VARCHAR2(50)		X		X
tax_date	DATE		X		X
tax_exempt_flag	VARCHAR2(30)		X		X
tax_exempt_number	VARCHAR2(50)				X
tax_exempt_reason_code	VARCHAR2(30)	C -if tax status is *Exempt*			X
tax_point_code	VARCHAR2(30)				for future use
tax_rate	NUMBER			X	
tax_value	NUMBER			X	
top_model_line_ref	VARCHAR2(50)				X
top_model_line_id	NUMBER			X	
top_model_line_index	NUMBER				X
unit_list_price	NUMBER		X		X
unit_list_price_per_pqty	NUMBER				X

Table 2–25 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
unit_selling_price	NUMBER		X		X
unit_selling_price_per_pqty	NUMBER				X
veh_cus_item_cum_key_id	NUMBER				X
visible_demand_flag	VARCHAR2(1)			X	
return_status	VARCHAR2(1)			X	
db_flag	VARCHAR2(1)			X	
operation	VARCHAR2(30)	X			
first_ack_code	VARCHAR2(30)			X	
first_ack_date	DATE			X	
last_ack_code	VARCHAR2(30)			X	
last_ack_date	DATE			X	
change_reason	VARCHAR2(30)				X
change_comments	VARCHAR2(2000)				X
arrival_set	VARCHAR2(30)				X
ship_set	VARCHAR2(30)				X
fulfillment_set	VARCHAR2(30)				X
order_source_id	NUMBER				X
orig_sys_shipment_ref	VARCHAR2(50)				X
change_sequence	VARCHAR2(50)				X
change_request_code	VARCHAR2(30)			X	
status_flag	VARCHAR2(1)			X	
drop_ship_flag	VARCHAR2(1)			X	
customer_line_number	VARCHAR2(50)				X
customer_shipment_number	VARCHAR2(50)				X
customer_item_net_price	NUMBER				X

Table 2–25 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
customer_payment_term_id	Obsolete	Obsolete	Obsolete	Obsolete	Obsolete
ordered_item_id	NUMBER	C: for Customer Items			
item_identifier_type	VARCHAR2(25)	C: for *customer* and *generic* items			X
shipping_instructions	VARCHAR2(2000)				X
packing_instructions	VARCHAR2(2000)				X
calculate_price_flag	VARCHAR2(1)				X
invoiced_quantity	NUMBER			X	
service_txn_reason_code	VARCHAR2(30)				X
service_txn_comments	VARCHAR2(2000)				X
service_duration	NUMBER		C - for service lines		X
service_period	VARCHAR2(3)	C - for service lines			X
service_start_date	DATE	C - for service lines			X
service_end_date	DATE	C - for service lines			X
service_coterminate_flag	VARCHAR2(1)				X
unit_list_percent	NUMBER				X
unit_selling_percent	NUMBER				X
unit_percent_base_price	NUMBER			X	
service_number	NUMBER			X	
service_reference_type_code	VARCHAR2(30)	C - for service lines			X
service_reference_line_id	NUMBER	C - for service lines			X

Table 2–25 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
service_reference_system_id	NUMBER				X
service_ref_order_number	NUMBER	C - for service reference type of *Order*			X
service_ref_line_number	NUMBER	C - for service reference type of *Order*			X
service_ref_shipment_number	NUMBER				X
service_ref_option_number	NUMBER				X
service_line_index	NUMBER				X
Line_set_id	NUMBER			X	
split_by	VARCHAR2(240)				X
Split_Action_Code	VARCHAR2(30)				X
shippable_flag	VARCHAR2(1)			X	
model_remnant_flag	VARCHAR2(1)			X	
flow_status_code	VARCHAR2(30)			X	
fulfilled_flag	VARCHAR2(1)			X	
fulfillment_method_code	VARCHAR2(30)			X	
revenue_amount	NUMBER			X	
marketing_source_code_id	NUMBER				X
fulfillment_date	DATE			X	
semi_processed_flag	BOOLEAN			X	
override_atp_date_code	Varchar2(30)	No	No	No	Y
late_demand_penalty_factor	Number	No	No	No	Y

TYPE Line_Tbl_Type IS TABLE OF Line_Rec_Type

Index BY BINARY_INTEGER;

Line_Val_Rec_Type

Table 2–26 Line_Val_Rec_Type

Parameter
accounting_rule
agreement
commitment
deliver_to_address1
deliver_to_address2
deliver_to_address3
deliver_to_address4
deliver_to_contact
deliver_to_location
deliver_to_org
demand_class
demand_bucket_type
fob_point
freight_terms
inventory_item
invoice_to_address1
invoice_to_address2
invoice_to_address3
invoice_to_address4
invoice_to_contact
invoice_to_location
invoice_to_org
invoicing_rule
item_type

Table 2–26 Line_Val_Rec_Type

Parameter
line_type
over_ship_reason
payment_term
price_list
project
return_reason
rla_schedule_type
salesrep
shipment_priority
ship_from_address1
ship_from_address2
ship_from_address3
ship_from_address4
ship_from_location
ship_from_org
ship_to_address1
ship_to_address2
ship_to_address3
ship_to_address4
ship_to_contact
ship_to_location
ship_to_org
source_type
intermed_ship_to_address1
intermed_ship_to_address2
intermed_ship_to_address3
intermed_ship_to_address4

Table 2–26 Line_Val_Rec_Type

Parameter
intermed_ship_to_contact
intermed_ship_to_location
intermed_ship_to_org
sold_to_org
sold_from_org
task
tax_exempt
tax_exempt_reason
tax_point
veh_cus_item_cum_key
visible_demand
customer_payment_term - *obsolete*
ref_order_number
ref_line_number
ref_shipment_number
ref_option_number
ref_invoice_number
ref_invoice_line_number
credit_invoice_number
tax_group
status
freight_carrier
shipping_method

TYPE Line_Val_Tbl_Type IS TABLE OF Line_Val_Rec_Type
  INDEX BY BINARY_INTEGER;

TYPE Line_Adj_Rec_Type IS RECORD

For column descriptions, please refer to the Order Management TRM for the table OE_PRICE_ADJUSTMENTS

Table 2–27 OE_PRICE_ADJUSTMENTS

Parameter	Datatype	Required	Derived	Optional
attribute1.... attribute15	VARCHAR2(240)			
automatic_flag	VARCHAR2(1)	X		X
context	VARCHAR2(30)			X
created_by	NUMBER		X	
creation_date	DATE		X	
discount_id	NUMBER		X	
discount_line_id	NUMBER		X	
header_id	NUMBER	X		
last_updated_by	NUMBER		X	
last_update_date	DATE		X	
last_update_login	NUMBER		X	
line_id				
percent	NUMBER		X	
price_adjustment_id	NUMBER	C -for update and delete		X
program_application_id	NUMBER			X
program_id	NUMBER			X
program_update_date	DATE			X
request_id	NUMBER			X
return_status	VARCHAR2(1)		X	
db_flag	VARCHAR2(1)		X	
operation	VARCHAR2(30)	X		
line_index	NUMBER			X
orig_sys_discount_ref	VARCHAR2(50)			X
change_request_code	VARCHAR2(30)			X

Table 2–27 OE_PRICE_ADJUSTMENTS

Parameter	Datatype	Required	Derived	Optional
status_flag	VARCHAR2(1)			X
list_header_id	NUMBER	C - not required only for tax records		
list_line_id	NUMBER	C - not required only for tax records		
list_line_type_code	VARCHAR2(30)		X	
modifier_mechanism_type_code	VARCHAR2(30)		X	
modified_from	NUMBER		X	
modified_to	NUMBER		X	
updated_flag	VARCHAR2(1)			
update_allowed	VARCHAR2(1)		X	
applied_flag	VARCHAR2(1)		X	
change_reason_code	VARCHAR2(30)			X
change_reason_text	VARCHAR2(2000)			X
operand	NUMBER			X
operand_per_pqty	NUMBER			
arithmetic_operator	VARCHAR2(30)		X	
cost_id	NUMBER		X	
tax_code	VARCHAR2(30)			
tax_exempt_flag	VARCHAR2(1)			
tax_exempt_number	VARCHAR2(80)			
tax_exempt_reason_code	VARCHAR2(30)			
parent_adjustment_id	NUMBER	X -for update and delete		
invoiced_flag	VARCHAR2(1)		X	
estimated_flag	VARCHAR2(1)		X	
inc_in_sales_performance	VARCHAR2(1)		X	

Table 2–27 OE_PRICE_ADJUSTMENTS

Parameter	Datatype	Required	Derived	Optional
split_action_code	VARCHAR2(30)			X
adjusted_amount	NUMBER		X	
adjusted_amount_per_pqty	NUMBER			
pricing_phase_id	NUMBER		X	
charge_type_code	VARCHAR2(30)		X	
charge_subtype_code	VARCHAR2(30)		X	
list_line_no	VARCHAR2(240)		X	
source_system_code	VARCHAR2(30)		X	
benefit_qty	NUMBER		X	
benefit_uom_code	VARCHAR2(3)		X	
print_on_invoice_flag	VARCHAR2(1)		X	
expiration_date	DATE		X	
rebate_transaction_type_code	VARCHAR2(30)		X	
rebate_transaction_reference	VARCHAR2(80)		X	
rebate_payment_system_code	VARCHAR2(30)		X	
redeemed_date	DATE		X	
redeemed_flag	VARCHAR2(1)		X	
accrual_flag	VARCHAR2(1)		X	
range_break_quantity	NUMBER		X	
accrual_conversion_rate	NUMBER		X	
pricing_group_sequence	NUMBER		X	
modifier_level_code	VARCHAR2(30)		X	
price_break_type_code	VARCHAR2(30)		X	
substitution_attribute	VARCHAR2(30)		X	
proration_type_code	VARCHAR2(30)		X	
credit_or_charge_flag	VARCHAR2(1)		X	

Table 2–27 OE_PRICE_ADJUSTMENTS

Parameter	Datatype	Required	Derived	Optional
include_on_returns_flag	VARCHAR2(1)		X	
ac_attribute1...15	VARCHAR2(240)			X
ac_context	VARCHAR2(150)			X

TYPE Line_Adj_Tbl_Type IS TABLE OF Line_Adj_Rec_Type

INDEX BY BINARY_INTEGER;

TYPE Line_Adj_Val_Rec_Type IS RECORD

(discount List_name)

TYPE Line_Adj_Val_Tbl_Type IS TABLE OF Line_Adj_Val_Rec_Type

INDEX BY BINARY_INTEGER;

Line_Price_Att_Rec_Type

For column descriptions, please refer to the Order Management TRM for the table OE_ORDER_PRICE_ATTRIBS

Table 2–28 OE_ORDER_PRICE_ATTRIBS

Parameter	Datatype	Required	Derived	Optional
order_price_attrib_id	NUMBER			X
header_id	NUMBER			
line_id	NUMBER			
line_index	NUMBER			
creation_date	DATE		X	
created_by	NUMBER		X	
last_update_date	DATE		X	
last_updated_by	NUMBER		X	
last_update_login	NUMBER		X	
program_application_id	NUMBER			X
program_id	NUMBER			X

Table 2–28 OE_ORDER_PRICE_ATTRIBS

Parameter	Datatype	Required	Derived	Optional
program_update_date	DATE			X
request_id	NUMBER			X
flex_title	VARCHAR2(60)			
pricing_context	VARCHAR2(30)			
pricing_attribute1... pricing_attribute100	VARCHAR2(240)			
context	VARCHAR2(30)			
attribute1..15	VARCHAR2(240)			
Override_Flag	VARCHAR2(1)			
return_status	VARCHAR2(1)		X	
db_flag	VARCHAR2(1)		X	
operation	X			

TYPE Line_Price_Att_Tbl_Type is TABLE of Line_Price_Att_rec_Type

INDEX by BINARY_INTEGER

Line_Adj_Att_Rec_Type

For column descriptions, please refer to the Order Management TRM for the table OE_PRICE_ADJ_ATTRIBS

Table 2–29 OE_PRICE_ADJ_ATTRIBS

Parameter	Datatype	Required	Derived	Optional
price_adj_attrib_id	NUMBER	C -for update and delete		
price_adjustment_id	NUMBER	C - if adj_index not passed		
Adj_index	NUMBER	C - if price_adjustment_id not passed		
flex_title	VARCHAR2(60)	X		
pricing_context	VARCHAR2(30)	X		
pricing_attribute	VARCHAR2(30)	X		

Table 2–29 OE_PRICE_ADJ_ATTRIBS

Parameter	Datatype	Required	Derived	Optional
creation_date	DATE		X	
created_by	NUMBER		X	
last_update_date	DATE		X	
last_updated_by	NUMBER		X	
last_update_login	NUMBER		X	
program_application_id	NUMBER			X
program_id	NUMBER			X
program_update_date	DATE			X
request_id	NUMBER			X
pricing_attr_value_from	VARCHAR2(240)	X		
pricing_attr_value_to	VARCHAR2(240)			X
comparison_operator	VARCHAR2(30)			X
return_status	VARCHAR2(1)		X	
db_flag	VARCHAR2(1)		X	
operation	VARCHAR2(30)	X		

TYPE Line_Adj_Att_Tbl_Type is TABLE of Line_Adj_Att_rec_Type

INDEX by BINARY_INTEGER

Line_Adj_Assoc_Rec_Type

For column descriptions, please refer to the Order Management TRM for the table OE_PRICE_ADJ_ASSOCS

Table 2–30 OE_PRICE_ADJ_ASSOCS

Parameter	Datatype	Required	Derived	Optional
price_adj_assoc_id	NUMBER	C - for update and delete		
line_id	NUMBER	C - if line_index not passed		
Line_Index	NUMBER	C - if line_id not passed		

Table 2–30 OE_PRICE_ADJ_ASSOCS

Parameter	Datatype	Required	Derived	Optional
price_adjustment_id	NUMBER	C - if adj_index not passed		
Adj_index	NUMBER	C - if price_adjustment_ id not passed		
rltd_Price_Adj_Id	NUMBER			X
Rltd_Adj_Index	NUMBER			X
creation_date	DATE		X	
created_by	NUMBER		X	
last_update_date	DATE		X	
last_updated_by	NUMBER		X	
last_update_login	NUMBER		X	
program_application_id	NUMBER			X
program_id	NUMBER			X
program_update_date	DATE			X
request_id	NUMBER			X
return_status	VARCHAR2(1)		X	
db_flag	VARCHAR2(1)		X	
operation	VARCHAR2(30)	X		

TYPE Line_Adj_Assoc_Tbl_Type is TABLE of Line_Adj_Assoc_rec_Type

INDEX by BINARY_INTEGER;

TYPE Line_Scredit_Rec_Type IS RECORD

For column descriptions, please refer to the Order Management TRM for the table OE_SALES_CREDITS

Table 2–31 OE_SALES_CREDITS

Parameter	Datatype	Required	Derived	Optional
attribute1....attribute15	VARCHAR2(240)			X
context	VARCHAR2(30)			X
created_by	NUMBER		X	
creation_date	DATE		X	
dw_update_advice_flag	VARCHAR2(1)			X
header_id	NUMBER			X
last_updated_by	NUMBER		X	
last_update_date	DATE		X	
last_update_login	NUMBER		X	
line_id	NUMBER			X
percent	NUMBER	X		
salesrep_id	NUMBER	X		
sales_credit_type_id	NUMBER	X		
sales_credit_id	NUMBER			X
wh_update_date	DATE			X
return_status	VARCHAR2(1)		X	
db_flag	VARCHAR2(1)		X	
operation	VARCHAR2(30)	X		
line_index	NUMBER			X
orig_sys_credit_ref	VARCHAR2(50)			X
change_request_code	VARCHAR2(30)		X	
status_flag	VARCHAR2(1)		X	

TYPE Line_Scredit_Tbl_Type IS TABLE OF Line_Scredit_Rec_Type

INDEX BY BINARY_INTEGER;

```
--  Line_Scredit value record type
TYPE Line_Scredit_Val_Rec_Type IS RECORD
(   salesrep
```

```
    , sales_credit_type
);
```

TYPE Line_Scredit_Val_Tbl_Type IS TABLE OF Line_Scredit_Val_Rec_Type

INDEX BY BINARY_INTEGER;

Lot_Serial_Rec_Type

For column descriptions, please refer to the Order Management TRM for the table OE_LOT_SERIAL_NUMBERS

Table 2–32 OE_LOT_SERIAL_NUMBERS

Parameter	Datatype	Required	Derived	Optional
attribute1....attribute15	VARCHAR2(240)			X
context	VARCHAR2(30)			X
created_by	NUMBER		X	
creation_date	DATE		X	
from_serial_number	VARCHAR2(30)	C - if lot number not passed		X
last_updated_by	NUMBER		X	
last_update_date	DATE		X	
last_update_login	NUMBER		X	
line_id	NUMBER	C - if line index not passed		X
lot_number	VARCHAR2(30)	C - if lot serial information not available		X
lot_serial_id	NUMBER	C - for update and delete operation		X
quantity	NUMBER	X		X
to_serial_number	VARCHAR2(30)	C - if lot number not passed		X
return_status	VARCHAR2(1)		X	
db_flag	VARCHAR2(1)		X	
operation	VARCHAR2(30)	X		

Table 2–32 OE_LOT_SERIAL_NUMBERS

Parameter	Datatype	Required	Derived	Optional
line_index	NUMBER	C - if line id not passed		
orig_sys_lotserial_ref	VARCHAR2(50)			X
change_request_code	VARCHAR2(30)		X	
status_flag	VARCHAR2(1)		X	
line_set_id	NUMBER		X	

TYPE Lot_Serial_Tbl_Type IS TABLE OF Lot_Serial_Rec_Type

INDEX BY BINARY_INTEGER;

TYPE Lot_Serial_Val_Rec_Type IS RECORD

(line lot_serial);

TYPE Lot_Serial_Val_Tbl_Type IS TABLE OF Lot_Serial_Val_Rec_Type

INDEX BY BINARY_INTEGER;

Process Order Usage

Process Order is a complex API and a number of operations on a single order object and its entities can be performed via this API. This section is intended to help a user of the process order API in identifying the required parameters for some common operations and to give an understanding of the business flow behind each of these operations.

CREATE operation

For creating new order entities, the entity records and entity tables passed to Process_Order should have the operation OE_GLOBALS.G_OPR_CREATE. Pass in the known attributes on these records and Process Order will default the other *missing* attributes.

Note: If you pass in NULL values for some attributes, process order will interpret it as insertion of NULL into those attributes column and will NOT get default values for those attributes.

Line adjustments, line sales credits and line lot serial numbers belong to an order line and the ID of this parent line is stored on these records. When inserting the parent line and the child entities of this line together, the ID of the parent line is unknown. In this case, the line_index field on the child entity records indicates the index for the parent entity record in the lines table. After the line is processed, the line ID is retrieved and based on the line_index, the correct line_ID is populated on the child entity record.

Similarly for config items, the model line's ID is stored on the option lines. Again, when inserting models and options in a configuration together, the line ID for the model line will not be available. The top_model_line_index field on the option lines can be used to indicate the index for this model line in the lines table. Since models and standard lines are processed before the options, this line ID can then be populated before the option lines are processed.

The following steps are executed for each entity within process order:

- Check security
- Attribute level validation
- Entity level validation
- Posted to the database
- Cross Record Logic

Create Operation Example 1

Creating a new order with 2 lines and 1 line adjustment and the adjustment belongs to the second line.

```
-- SETTING UP THE HEADER RECORD
-- Initialize record to missing
l_header_rec := OE_ORDER_PUB.G_MISS_HEADER_REC;
-- Required attributes (e.g. Order Type and Customer)
l_header_rec.order_type_id := 1000;
l_header_rec.sold_to_org_id := 100;
-- Other attributes
l_header_rec.price_list_id := 10;
.........
-- Null attribute: no defaulting for freight terms
l_header_rec.freight_term_code = NULL;
-- Indicates to process order that a new header is being created
l_header_rec.operation := OE_GLOBALS.G_OPR_CREATE;

-- FIRST LINE RECORD
```

```
-- Initialize record to missing
l_line_tbl(1) := OE_ORDER_PUB.G_MISS_LINE_REC;
-- Line attributes
l_line_tbl(1).inventory_item_id := 311;
l_line_tbl(1).ordered_quantity := 1;
l_line_tbl(1).operation := OE_GLOBALS.G_OPR_CREATE;

-- SECOND LINE RECORD
-- Initialize record to missing
l_line_tbl(2) := OE_ORDER_PUB.G_MISS_LINE_REC;
-- Line attributes
l_line_tbl(2)inventory_item_id := 312;
l_line_tbl(2).ordered_quantity := 2;
l_line_tbl(2).operation := OE_GLOBALS.G_OPR_CREATE;

-- LINE ADJUSTMENT RECORD
-- Initialize record to missing
l_line_adj_tbl(1) := OE_ORDER_PUB.G_MISS_LINE_ADJ_REC;
-- Attributes for the line adjustment
l_line_adj_tbl(1).discount_id := 1;
l_line_adj_tbl(1).percent := 5;
l_line_adj_tbl(1).operation := OE_GLOBALS.G_OPR_CREATE;
-- Indicator that this adjustment belongs to the second line
l_line_adj_tbl(1).line_index := 2;

-- CALL TO PROCESS ORDER
OE_Order_PUB.Process_Order(
........
........
-- Passing just the entity records that are a part of this order
p_header_rec => l_header_rec
p_line_tbl=> l_line_tbl
p_line_adj_tbl=> l_line_adj_tbl
-- OUT variables
x_header_rec=> l_header_rec
x_header_scredit_tbl=> l_header_scr_tbl
x_header_adj_tbl=> l_header_adj_tbl
x_line_tbl=> l_line_tbl
x_line_scredit_tbl=> l_line_scredit_tbl
x_line_adj_tbl=> l_line_adj_tbl
.................
x_return_status=> l_return_status
x_msg_count=> l_msg_count
x_msg_data=> l_msg_data);
```

```
-- Retrieve messages
if l_msg_count > 0 then
   for l_index in 1..l_msg_count loop
l_msg_data := oe_msg_pub.get(p_msg_index => l_index, p_encoded => 'F');
   end loop;
end if;

-- Check the return status
if x_return_status = FND_API.G_RET_STS_SUCCESS then
   success;
else
   failure;
end if;
```

Create Operation Example 2

Inserting a new line into an existing order.

> **Warning:** You cannot insert new lines (or, process any other entity) belonging to different orders in one process order call

```
-- NEW LINE RECORD
l_line_tbl(1) := OE_ORDER_PUB.G_MISS_LINE_REC;
-- Primary key of the parent entity (If not passed, this will be retrieved
from the parent record, p_header_rec, if it was also passed to process order
else there will be an error in the processing of this line).
l_line_tbl(1).header_id := 1000;
-- Attributes for the new line
l_line_tbl(1).inventory_item_id := 311;
l_line_tbl(1).ordered_quantity := 1;
-- Indicator that a new line is being created
l_line_tbl(1).operation := OE_GLOBALS.G_OPR_CREATE;

-- CALL TO PROCESS ORDER
OE_ORDER_PUB.Process_Order(........
-- Passing just the entity records that are being created
p_line_tbl=> l_line_tbl
-- OUT variables
......);
```

UPDATE operation

Update of any attributes on the entities of the order object should always go through the process order API. For updates, the operations on the entity record

being updated should be OE_GLOBALS.G_OPR_UPDATE. Only the attributes that are being updated, the primary key of this entity and the primary key of the parent entity, if any, need to be passed and others can be set to missing. Process Order will query these missing attributes from the database.

Note: If you pass in NULL values for some attributes, process order will update existing value of those attributes, if any, with NULL.

Process Order can process entities belonging to one order object in one call. In a call where one entity record is being updated, another entity record can also be created as long as they belong to the same order object. For e.g. a line can be updated (G_OPR_UPDATE) and another line inserted (G_OPR_CREATE) in the same process order call if both lines have the same header_id.

The following processing steps are executed for each entity record that is updated:

- Check security for update of the changed attributes
- Validation of updated attributes
- Clearing of (or set to missing) attributes dependent on the updated attributes
- Defaulting of missing attributes
- Entity level validation
- Entity security check
- Posted to the database
- Cross Record Logic

Update Operation Example

Updating the bill to organization and order quantity on an order line.

```
-- LINE RECORD WITH THE CHANGES
-- Changed attributes
l_line_tbl(1) := OE_ORDER_PUB.G_MISS_LINE_REC.
l_line_tbl(1).invoice_to_org_id := 322;
l_line_tbl(1).ordered_quantity := 2;
-- Primary key of the entity i.e. the order line
l_line_tbl(1).line_id := 1000;
-- Indicates to process order that this is an update operation
```

```
l_line_tbl(1).operation := OE_GLOBALS.G_OPR_UPDATE;

-- CALL TO PROCESS ORDER
OE_ORDER_PUB.Process_Order(........
-- Entity records
p_line_tbl=> l_line_tbl
-- OUT variables
........);
```

DELETE operation

For deletes, the operations on the entity records being deleted should be OE_GLOBALS.G_OPR_DELETE. Only the primary key of the entity being deleted needs to be passed.

Deletes are cascaded down to the child entities for e.g. to delete an order, only the header record with the header ID needs to be passed to process order and all the child entities i.e. lines, header sales credits, header adjustments are deleted. Deleting the lines results in the deletion of line adjustments, line sales credits and line lot serial numbers as well. Also, it would delete delayed requests logged by or against this entity and its child entities.

Deletes would also result in the deletion of any holds and attachments associated with the deleted entity and its child entities. The workflow status information for this entity is also purged.

The following processing steps are executed for each entity record that is deleted:

- Entity security check.

  Note: Child entities will always be deleted if parent entity passes security check. There will not be a separate security check for child entities

- Entity level validation for deletes.
- Delete posted to the database. This will also delete child entities, holds and attachments.
- Cross Record Logic

Delete Operation Example

```
-- Only the record for the parent entity needs to be passed. Since the whole
order is being deleted, only the header record needs to be passed.
```

```
-- Primary key of this order i.e. the header
l_header_rec := OE_ORDER_PUB.G_MISS_LINE_REC;
-- Indicate to process order that the order is to be deleted
l_header_rec.operation := OE_GLOBALS.G_OPR_DELETE;

-- CALL TO PROCESS ORDER
OE_ORDER_PUB.Process_Order(.............
-- Entity records
p_header_rec=> l_header_rec
-- OUT variables
........);
```

Process Order and Action Requests

Process order API can also process some other actions on the order object. For e.g. booking the order, applying/releasing holds.

For each action request, a request record should be passed in the action request table (p_action_request_tbl) to process order and the parameters of the request record can provide additional information needed to carry out that action. The validation_level parameter determines whether validation of the parameters of the request record needs to be performed.

If the ID of the order or line for which this request needs to get executed is not known as it is being created in the same call, the ENTITY_INDEX field on the request record indicates the index for the entity record in the entity table passed to

Following are the action requests currently supported and the parameters on the request record that are used in processing the request.

Book the order

This request is used to book the order.

Table 2–33 Book Order

Parameter	Description
request_type	OE_GLOBALS.G_BOOK_ORDER
entity_code	This should be always set to OE_GLOBALS.G_ ENTITY_HEADER as booking is an order level action.
entity_id	Header ID of the order to be booked. If the order is also being created in the same call to process order, then the user does not need to provide this value.

Apply Automatic Attachments

The attachment rules will be evaluated for the entity and if applicable, documents will be attached to the entity.

Table 2–34 Apply Automatic Attachments

Parameter	Description
request_type	OE_GLOBALS.G_APPLY_AUTOMATIC_ATCHMT
entity_code	OE_GLOBALS.G_ENTITY_HEADER if the rules are to be evaluated for the order header OE_GLOBALS.G_ENTITY_LINE if rules are to be evaluated for the order line.
entity_id	Header ID if the entity is G_ENTITY_HEADER, Line ID if the entity is G_ENTITY_LINE
entity_index	If entity is G_ENTITY_LINE and the line is being created in the same call to process order, then send in the index position for this line in the table, p_line_tbl.

Apply Hold

Holds will be applied based on the parameters sent in on the request record.

Table 2–35 Apply Hold

Parameter	Description
request_type	OE_GLOBALS.G_APPLY_HOLD
entity_code	OE_GLOBALS.G_ENTITY_ORDER for order or OE_GLOBALS.G_ENTITY_LINE for line.
entity_id	ID of the order or line to be held
param1	Hold ID to identify the type of hold that should be applied. (HOLD_ID from OE_HOLD_DEFINITIONS)
param2	Hold entity code for the hold source to be created. ***C***: Customer hold source ***S***: Bill To or Ship To hold source ***I***: Item hold source ***O***: Order hold source ***W***: Warehouse Hold Source

Table 2–35 Apply Hold

Parameter	Description
param3	Hold entity ID ***C or S***: for Org ID ***O***: Header ID ***I***: Inventory Item ID
param4	Hold comment
date_param1	Hold Until Date
parm6-param20	Attribute1-15 of the descriptive flexfield associated with the hold source record.

Release Hold

Releases the holds associated with an order or line.

Table 2–36 Release Hold

Parameter	Description
request_type	OE_GLOBALS.G_RELEASE_HOLD
entity_code	OE_GLOBALS.G_ENTITY_ORDER for order or OE_GLOBALS.G_ENTITY_LINE for line.
entity_id	ID of the order or line to be released from hold
param1	Hold ID to specify the type of hold that is to be removed.
param2	Hold entity code on the hold source associated with the hold to be released ***C***: Customer hold source ***S***: Bill To or Ship To hold source ***I***: Item hold source ***O***: Order hold source ***W***: Warehouse Hold Source
param3	Hold entity ID: ***C or S***: for Org ID ***O***: Header ID ***I***: Inventory Item ID

Table 2–36 Release Hold

Parameter	Description
param4	Release Reason Code
param5	Release Comment

Delink Config

This request deletes the configuration item.

Table 2–37 Delink Config

Parameter	Description
request_type	OE_GLOBALS.G_DELINK_CONFIG
entity_code	OE_GLOBALS.G_ENTITY_LINE
entity_id	Line ID of the top model line of the ATO configuration

Match and Reserve

This request checks if an existing configuration item matches the configuration created by the user and if configuration item is available, it reserves it.

Table 2–38 Match and Reserve

Parameter	Description
request_type	OE_GLOBALS.G_MATCH_AND_RESERVE
entity_code	OE_GLOBALS.G_ENTITY_LINE
entity_id	Line ID of the top model line of the ATO configuration

Get Ship Method

This action is supported only OM pack I onwards. The actions can be performed only if OM system parameter 'Enable Ship Method' is enabled. OM will use the routing guides defined in product transportation to get the most appropriate carrier and ship method, dependent on defined business rules. The action always works on the entire order at a time. The action ignores following type of lines while deriving the ship method,

a. Dropship lines

b. Return lines

c. Service lines

d. CONFIG lines (The line created after progressing ATO model once it is booked and scheduled)

e. Lines that are already shipped

f. Lines that are already fulfilled

g. Lines that are already closed

h. Lines which do not have all required parameters. e.g. ship from, ship to.

Table 2–39 Get Ship Method

Parameter	Description
request_type	OE_GLOBALS. G_GET_SHIP_METHOD
entity_code	OE_GLOBALS.G_ENTITY_HEADER or OE_GLOBALS.G_ENTITY_HEADER
entity_id	Header ID if entity is LINE Line ID if entity is LINE

Action Request Example

Process order can also process other action requests on the order or line as has been documented already.

Apply a hold to an order line due to a defective item.

```
-- ACTION REQUEST RECORD

-- Indicates that it is a line level action
l_request_rec.entity := OE_GLOBALS.G_ENTITY_LINE;
-- primary key of the line on which the hold is to be applied
l_request_rec.entity_id := 100;
-- name of the action request
l_request_rec.request_name := OE_GLOBALS.G_APPLY_HOLD;

-- request record parameters
-- defective product hold (hold_id)
l_request_rec.param1 := 4;
-- indicator that it is an item hold (hold_entity_code)
l_request_rec.param2 = 'I';
-- Id of the item (hold_entity_id)
l_request_rec.param3 := 3214;

-- inserting request record into the action request table
```

```
    l_action_request_tbl := l_request_rec;

    -- CALL TO PROCESS ORDER
    OE_Order_PVT.Process_Order(........
    -- action request table
    p_action_request_tbl=> l_action_request_tbl........
    -- OUT variables
........);
```

See:

Oracle Applications Message Reference Manual

Oracle Order Management User's Guide

Integrating Oracle Order Management with Oracle Receivables and Invoicing

Oracle Order Management provides functionality to integrate with Oracle Receivables. Using AutoInvoice, you can create invoices, create credit memos and credits on account, recognize revenue, and manage sales credits.

Basic Needs

Oracle Order Management and Oracle Receivables provide features you need to satisfy the following integration needs:

- Create accurate and timely invoices, credit memos, and credits on account from Order Management transactions
- Control when order transactions are invoiced

Major Features

Invoicing Activity

Order Management provides a program that automatically collects order and return information and populates the Oracle Receivables AutoInvoice interface tables. Using order management transaction types and profile options, you control certain accounting aspects of the information being transferred to Oracle Receivables. Invoicing module is modeled using workflow and can happen after shipping for shippable flows and any time after booking for non-shippable flows. Invoicing can be placed at both order line level workflows as well as order header level

workflows. If placed at the order header level, all lines in an order are populated in AutoInvoice interface tables at the same time.

Invoice Source

You must setup invoice sources in Oracle Receivables prior to using Oracle Order Management. Order Management uses the invoice source setup at the transaction type level or the profile option OM: Invoice Source when populating order line information into AutoInvoice interface tables. When defining invoice sources in Oracle Receivables, you must create at least one invoice source for Order Management's use if you want to interface orders and returns for processing by AutoInvoice.

The following table shows the necessary field values for the Transaction Source window in Oracle Receivables.

Table 2–40 Transaction Sources Window: Required Settings

Field in Transaction Sources Window	Necessary Value
Batch Source region	
Type	Imported
Status	Active
Automatic Transaction Numbering	Yes if OM: Invoice Numbering Method is set to Automatic, No if set to Delivery Name
Customer Information region	Customer Information region
Sold-to Customer	Id
Bill-to Customer	Id
Bill-to Address	Id
Bill-to Contact	Id
Ship-to Customer	Id
Ship-to Address	Id
Ship-to Contact	Id
Payment Method Rule	(any)
Customer Bank Account	(any)
Accounting Information region	Accounting Information region

Table 2–40 Transaction Sources Window: Required Settings

Field in Transaction Sources Window	Necessary Value
Invoicing Rule	Id
Accounting Rule	Id
Accounting Flexfield	(any)
Derive Date	(any)
Payment Terms	Id
Revenue Account allocation	(any)
Other Information region	Other Information region
Transaction Type	Id
Memo Reason	Id
Agreement	Id
Memo Line Rule	Id
Sales Territory	(any)
Inventory Item	Id
Unit of Measure	Id
FOB Point	Code
Freight Carrier	Code
Related Document	Id
Sales Credits Validation region	Sales Credits Validation region
Salesperson	Id
Sales Credit Type	Id
Sales Credit	Percent

Note: In the Batch Source region, you must define at least one transaction source with automatic invoice numbering, regardless of your setting for the *OM: Invoice Numbering Method* profile.

Automatic Tax Calculation

As orders from Order Management are processed, AutoInvoice automatically calculates sales tax based on the Sales Tax Location flexfield combination. If you have designated a customer as tax-exempt, AutoInvoice will not tax any items billed for the customer. Similarly, if you have designated an item as non-taxable, AutoInvoice will not tax the item.

Automatic Account Code Creation

Oracle Receivables uses AutoAccounting to determine the revenue account for all transactions from Order Management. AutoAccounting lets you define what information is used to define the various segments of your Accounting Flexfield.

Accounting and Invoicing Rules

Order Management uses accounting and invoicing rules. This information is transferred to Oracle Receivables and used to determine the invoice date (invoicing rule) and general ledger distribution records (accounting rule). Order Management passes an invoicing rule and accounting rule for each order transaction interfaced to Oracle Receivables, except for when the accounting rule is Immediate, in which case Order Management does not pass any value (inserts null).

Accounting Rules

Order Management determines the accounting rule for sales order lines based on the following hierarchy.

Table 2–41 Accounting Rule Hierarchy for Sales Order Lines

-	Accounting Rule Hierarchy for Sales Order Lines
1	If you referenced an agreement on the order that does not allow override of the accounting rule, Order Management inserts the accounting rule from the associated agreement (OE_AGREEMENTS. ACCOUNTING_RULE_ID); if not, then...
2	If you referenced a commitment on the order line that is associated with an agreement that does not allow override of the accounting rule, Order Management inserts the accounting rule from the agreement (OE_AGREEMENTS.ACCOUNTING_ RULE_ID); if not, then...

Table 2–41 Accounting Rule Hierarchy for Sales Order Lines

-	Accounting Rule Hierarchy for Sales Order Lines
3	Line transaction types associated with the order line (OE_TRANSACTION_ TYPES.ACCOUNTING_RULE_ID).
4	If you defined an accounting rule for the item, Order Management will use the accounting rule for the item (MTL_SYSTEM_ITEMS.ACCOUNTING_RULE_ID); if not, then...
5	If you referenced a commitment on the order that is associated with an agreement that does allow override of the accounting rule, Order Management inserts the accounting rule from the associated agreement (OE_AGREEMENTS.ACCOUNTING_ RULE_ID); if not, then...
6	If you referenced an agreement on the order line that does allow override of the accounting rule, Order Management inserts the accounting rule from the agreement (OE_AGREEMENTS.ACCOUNTING_RULE_ID); if not, then...
7	In all other cases, Order Management inserts the accounting rule on the order.

Invoicing Rules

Order Management determines the invoicing rule for a sales order line based on the following hierarchy:

Table 2–42 Invoicing Rule Hierarchy for Sales Order Lines

-	Invoicing Rule Hierarchy for Sales Order Lines
1	If you referenced an agreement on the order that does not allow override of the invoicing rule, Order Management inserts the invoicing rule from the agreement (OE_ AGREEMENTS.INVOICING_RULE_ID); if not, then...
2	If you referenced a commitment on the order line that is associated with an agreement that does not allow override of the invoicing rule, Order Management inserts the invoicing rule from the agreement (OE_AGREEMENTS.INVOICING_RULE_ID); if not, then...

Table 2–42 Invoicing Rule Hierarchy for Sales Order Lines

-	Invoicing Rule Hierarchy for Sales Order Lines
3	Line transaction types associated with the order line (OE_TRANSACTION_ TYPES.ACCOUNTING_RULE_ID).
4	If you defined an invoicing rule for the item, Order Management will use the invoicing rule for the item (MTL_SYSTEM_ITEMS.INVOICING_RULE_ID); if not, then...
5	If you referenced a commitment on the order line that is associated with an agreement that does allow override of the invoicing rule, Order Management inserts the invoicing rule from that agreement (OE_AGREEMENTS.INVOICING_ RULE_ID); if not, then...
6	If you referenced an agreement on the order that does allow override of the invoicing rule, Order Management inserts the invoicing rule from the agreement. (OE_ AGREEMENTS.INVOICING_RULE_ID); if not, then...
7	In all other cases, Order Management inserts the invoicing rule on the order.

Credit Method for Accounting Rule

Order Management transfers a Credit Method for Accounting Rule for each return line. This credit method is recognized only by invoices that use duration accounting rules. You can assign a Credit Method for Accounting Rule to the order type of the return. If the Credit Method for Accounting Rule field for the order type is null, then Order Management transfers LIFO (Last In First Out).

Credit Method for Installments

Order Management transfers a Credit Method for Installments for each return line. This credit method is used for crediting an invoice that uses split payment terms. You can assign a Credit Method for Installments to the order type of the return. If the Credit Method for Installments field for the order type is null, then Order Management transfers LIFO (Last In First Out).

Internal Sales Orders

The Invoicing Activity does not process internal sales order lines, even if it is placed in the internal sales order's workflow.

Internal sales orders are orders that originate in Oracle Purchasing as internal requisitions, and are imported to Order Management as internal sales orders using Order Import.

See:

Using AutoAccounting, *Oracle Receivables User's Guide*

Accounting Rules, *Oracle Receivables User's Guide*

Entering Commitments, *Oracle Receivables User's Guide*

Defining Items, *Oracle Inventory User's Guide*

Accounting for Credit Memos, *Oracle Receivables User's Guide*

Invoicing of ATO Configurations

Invoicing Attributes

For ATO configurations, Order Management considers the base model's item attribute of a configuration to see if it should consider passing invoice information to Oracle Receivables for each order line in the configuration. If you have the item attributes Invoiceable Item and Invoice Enabled set to Yes for the base model item, Order Management then considers these item attributes for each component in the bill of material for the model to see if they should be invoiced in Oracle Receivables. If the item attributes Invoiceable Item or Invoice Enabled are set to No for the base model item, Order Management does not pass invoicing information to Oracle Receivables for any order lines for the components within the configuration, regardless of the item attribute settings.

Required for Revenue Attribute

The bill of material attribute Required for Revenue allows you to define specific items in a bill that must be shipped before their parent can be invoiced. In all cases the control applies to only one level, the immediate parent. Except for classes, the control relationship is the child affecting the parent.

For example: Included Item A has the Required for Revenue attribute set to Yes. Option A is not eligible to interface to Oracle Receivables until Included Item A is shipped, even if Option A is also shippable and has shipped. All other components, including Model A and Model 1, are eligible to interface regardless of Included Item A's shipment status.

Example #2: Included Item B has the Required for Revenue attribute set to Yes. Model 1 is not eligible to interface to Oracle Receivables until Included Item B is shipped. And again, Option A is not eligible to interface until Included Item A is shipped.

Example #3: If any item below a class in a bill has the Required for Revenue attribute set to Yes, then that item must be shipped before the parent item and the other items in the class are eligible to interface. For example, in the figure above, Included Item C has the Required for Revenue attribute set to Yes. Therefore, both Option C and Class C are not eligible to interface until Included Item C is shipped.

See:

Item Attributes Used by Order Management, *Oracle Order Management User's Guide*

Overview of Bills of Material, *Oracle Bills of Material User's Guide*

Understanding the Receivables Interface Tables

Oracle Order Management inserts information into two of the three AutoInvoice interface tables (RA_INTERFACE_LINES and RA_INTERFACE_SALES_CREDITS). RA_INTERFACE_ DISTRIBUTIONS is not described in this essay because all account code creation is done by AutoInvoice based on the AutoAccounting rules you have defined. The following describes what information Order Management interfaces for each order and order line, each sales credit, and each freight charge.

Note: Order Management line numbers are populated in the following manner within RA_INTERFACE_LINES.:

INTERFACE_LINE_ATTRIBUTE6 (line_id)

INTERFACE_LINE_ATTRIBUTE12 (shipment_number)

INTERFACE_LINE_ATTRIBUTE13 (option_number)

INTERFACE_LINE_ATTRIBUTE14 (service_number)

Table 2–43 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
INTERFACE_LINE_ID		NUMBER(15)	Order Management does not insert a value into this column.
INTERFACE_LINE_ CONTEXT		Varchar2(30)	Order Management inserts your value for the OM: Source Code profile option
INTERFACE_LINE_ ATTRIBUTE1		Varchar2(30)	Order Management inserts OE_HEADERS.ORDER_ NUMBER.

Table 2–43 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
INTERFACE_LINE_ ATTRIBUTE2		Varchar2(30)	Order Management inserts OE_ORDER_TYPES_ V.NAME in the base language.
INTERFACE_LINE_ ATTRIBUTE3		Varchar2(30)	*For a Shipped order line and for Freight Charges:* Order Management inserts substr(wsh_new_ deliveries.name1..30 For a Non-shipped order line or a Return Line: Order Management inserts 0 (zero).
INTERFACE_LINE_ ATTRIBUTE4		Varchar2(30)	*For a Shipped order line and for Freight Charges:* Order Management inserts: substr(wsh_new_ deliveries.waybill1..30 For a Non-shipped order line or a Return Line: Order Management inserts 0 (zero).
INTERFACE_LINE_ ATTRIBUTE5		Varchar2(30)	*For a Sales order or return line:* Order Management inserts the number of times the order or return line has been interfaced for invoice or credit. *For Freight charges:* Order Management inserts a value of *1*(one).
INTERFACE_LINE_ ATTRIBUTE6		Varchar2(30)	*For a Sales order or return line:* Order Management inserts OE_ORDER_LINES.LINE_ID. *For Freight charges:* OE_CHARGE_LINES_ V.CHARGE_ID.
INTERFACE_LINE_ ATTRIBUTE7		Varchar2(30)	*For a shipped order line, a return line, or for Freight Charges:* Order Management inserts zero (0).
INTERFACE_LINE_ ATTRIBUTE8		Varchar2(30)	*For a shipped order line, a non-shipped order line, a return line, or for Freight Charges:* Order Management inserts zero (0).
INTERFACE_LINE_ ATTRIBUTE9		Varchar2(30)	Order Management inserts the customer item number, if one is defined. Otherwise, it inserts 0 (zero).
INTERFACE_LINE_ ATTRIBUTE10		Varchar2(30)	Order Management inserts OE_ORDER_ LINES.SHIP_FROM_ORD_ID.
INTERFACE_LINE_ ATTRIBUTE11		Varchar2(30)	Order Management inserts oe_price_ adjustments.price_adjustment_id for discount lines: Note: profile (OM: Show Discount Details on Invoice must be *Yes*.). For all other lines the value 0 is passed.

Table 2–43 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
INTERFACE_LINE_ ATTRIBUTE12		Varchar2(30)	Order Management inserts oe_order_lines_ all.shipment_number
INTERFACE_LINE_ ATTRIBUTE13		Varchar2(30)	Order Management inserts oe_order_lines_ all.option_number
INTERFACE_LINE_ ATTRIBUTE14		Varchar2(30)	Order Management inserts oe_order_lines_ all.service_number
INTERFACE_LINE_ ATTRIBUTE15		Varchar2(30)	Order Management does not insert a value into this column
BATCH_SOURCE_NAME	Not Null	Varchar2(50)	Order Management enters the invoice source name using the following rules: If *OM: Invoice Numbering Method* is set to Delivery Name, but line is non-shippable or a return line, Order Management passes the value of the profile option *OM: Non-Delivery Invoice Source.* For all other lines, Order Management uses the following sequence to determine the invoice source: 1. Order Transaction Type associated with the order line being interfaced to AutoInvoice. 2. Order Line Transaction Type associated with the order line being interfaced to AutoInvoice. 3. Value of the profile option OM: Invoice Source.
SET_OF_BOOKS_ID	Not Null	NUMBER (15)	Order Management inserts the ID from the OE: Set of Books system parameter for the operating unit of the order line.
LINE _TYPE	Not Null	Varchar2(20)	*For a Sales order or return line:* Order Management inserts LINE. *For Freight charges:* Order Management inserts FREIGHT for shipment freight charges **if** the profile option *TAX: Invoice Freight as Revenue* is set to No, otherwise the system inserts LINE.

Table 2–43 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
DESCRIPTION	Not Null	Varchar2(240)	*For a Sales order or return line:* Order Management inserts MTL_SYSTEM_ITEMS.DESCRIPTION for the item ***or*** if order line uses item identifiers (item/generic item): ▪ if a description exists, customer item/generic item description is passed. ▪ if the description is null then mtl_system_items_vl.description is passed *For Freight charges:* Order Management inserts description of the change (OE_CHARGE_TYPES.description) for shipment freight charges.
CURRENCY_CODE	Not Null	Varchar2(30)	oe_order_headers.transactiona_curr_code for all shipped/non shipped order/return lines.
AMOUNT		NUMBER	*For a Sales order or return line:* Order Management inserts a calculated amount (OE_ORDER_LINES.UNIT_SELLING_PRICE multiplied by OE_ORDER_LINES.ORDERED_QUANTITY) based on the calculated quantity. Order Management rounds the amount based on the minimum accounting unit and precision associated with the currency of the order. The amount sign will match the sign on the quantity based on the value of RA_CUST_TRX_TYPES.CREATION_SIGN. *For Freight charges*: Order Management inserts: oe_charge_lines_v.charge_amount
CUST_TRX_TYPE_NAME		Varchar2(20)	Order Management does not insert a value into this column
CUST_TRX_TYPE_ID		NUMBER (15)	Please refer to the heading CUST_TRX_TYPE_ID at the end of this table for more information
TERM_NAME		Varchar2(15)	Order Management does not insert a value into this column.
TERM_ID		NUMBER (15)	*For a Sales order line:* Order Management inserts OE_ORDER_LINES.PAYMENT_TERM_ID. *For a Return line:* Order Management does not insert a value into this column. *For Freight charges:* Order Management inserts: oe_order_lines_all.payment_term_id.

Table 2–43 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
ORIG_SYSTEM_BILL_ CUSTOMER_REF		Varchar2(240)	Order Management does not insert a value into this column.
ORIG_SYSTEM_BILL_ CUSTOMER_ID		NUMBER(15)	Order Management inserts: SELECT customer_id FROM oe_invoice_to_orgs_v WHERE organization_id = oe_order_lines.invoice_ to_org_id
ORIG_SYSTEM_BILL_ ADDRESS_REF		Varchar2(240)	Order Management does not insert a value into this column.
ORIG_SYSTEM_BILL_ ADDRESS_ID		NUMBER (15)	Order Management inserts: SELECT address_id FROM oe_invoice_to_orgs_v WHERE organization_id = oe_order_lines.invoice_ to_org_id
ORIG_SYSTEM_BILL_ CONTACT_REF		Varchar2(240)	Order Management does not insert a value into this column.
ORIG_SYSTEM_BILL_ CONTACT_ID		NUMBER (15)	Order Management inserts: oe_order_lines.invoice_ to_contact_id
ORIG_SYSTEM_SHIP_ CUSTOMER_REF		Varchar2(240)	Order Management does not insert a value into this column
ORIG_SYSTEM_SHIP_ CUSTOMER_ID		NUMBER (15)	Order Management inserts SELECT customer_id FROM oe_ship_to_orgs_v WHERE organization_id = oe_order_lines.ship_to_ org_id
ORIG_SYSTEM_SHIP_ ADDRESS_REF		Varchar2(240)	Order Management does not insert a value into this column.

Table 2–43 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
ORIG_SYSTEM_SHIP_ ADDRESS_ID		NUMBER(15)	*For a Sales order or return line:* Order Management inserts RA_SITE_USES.ADDRESS_ID FROM RA_ ADDRESSES WHERE RA_SITE_USES.SITE_USE_ ID = NVL(OE_ORDER_LINES.SHIP_TO_SITE_ USE_ID, OE_ORDER_HEADERS.SHIP_TO_SITE_ USE_ID))). *For Freight charges:* Order Management inserts RA_ SITE_USES.ADDRESS_ID FROM RA_ADDRESSES WHERE RA_SITE_USES.SITE_USE_ID = OE_ ORDER_HEADERS.SHIP_TO_SITE_USE_ID).
ORIG_SYSTEM_SHIP_ CONTACT_REF		Vaqrchar2(24)	Order Management does not insert a value into this column.
ORIG_SYSTEM_SHIP_ CONTACT_ID		NUMBER(15)	Order Management inserts: oe_order_lines.ship_to_ contact_id
ORIG_SYSTEM_SOLD_ CUSTOMER_REF		Varchar2(240)	Order Management does not insert a value into this column.
ORIG_SYSTEM_SOLD_ CUSTOMER_ID		NUMBER(15)	Order Management inserts OE_ORDER__ HEADERS.SOLD_TO_ORG_ID.
LINK_TO_LINE_ID		NUMBER(15)	Order Management does not insert a value into this column.
LINK_TO_LINE_ CONTEXT		Vharchar2(30)	Order Management does not insert a value into this column.
LINK_TO_LINE_ ATTRIBUTE1 - 15		Vharchar2(30)	Order Management does not insert *any* values into *any* of these columns.
RECEIPT_METHOD_ NAME		Vharchar2(30)	Order Management does not insert a value into this column.
RECEIPT_METHOD_ID		NUMBER(15)	Order Management does not insert a value into this column.
CONVERSION_TYPE	Not NULL	Varchar2(30)	Order Management inserts NVL(OE_ORDER_ HEADERS.CONVERSION_ TYPE, *User*).
CONVERSION_DATE		Date	Order Management inserts OE_ORDER_ HEADERS.CONVERSION_DATE.
CONVERSION_RATE		NUMBER	Order Management inserts OE_ORDER_ HEADERS.CONVERSION_RATE.
CUSTOMER_TRX_ID		NUMBER(15)	Order Management does not insert a value into this column.

Table 2–43 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
TRX_DATE		Date	Order Management does not insert a value into this column.
GL_DATE		Date	Order Management does not insert a value into this column.
DOCUMENT_NUMBER		NUMBER(15)	Order Management does not insert a value into this column.
TRX_NUMBER		Varchar2(240)	If the *OM: Invoice Numbering Method* profile is set to Automatic, AutoInvoice determines a unique number for this transaction. If the profile is set to *Delivery Name*, Order Management inserts a delivery name. An index is appended if the delivery has more than one invoice. For example, Order Management might insert *delivery* for the first invoice, *delivery-1* for the second, *delivery-2* for the third, and so on.
LINE_NUMBER		NUMBER(15)	Order Management does not insert a value into this column.
QUANTITY		NUMBER	Order Management inserts a calculated quantity based on the type of line being interfaced. This calculation is based on rules for fulfillment, over and under shipments, required for revenue and what was previously invoiced. *For a Sales order line:* The quantity will be either negative or positive, depending on the value of RA_CUST_TRX_TYPES.CREATION_SIGN associated with the invoice type for the sales order. If RA_CUST_TRX_TYPES. CREATION_SIGN is N, then quantity passed is -1 multiplied by the quantity calculated.
QUANTITY_ORDERED		NUMBER	*For a Sales order line or return line:* Order Management inserts OE_ORDER_LINES.ORDERED_QUANTITY. *For Freight charges*: Order Management does not insert a value into this column
UNIT_SELLING_PRICE		NUMBER	*For a Sales order line or return lines:* Order Management inserts OE_ORDER_LINES.UNIT_SELLING_PRICE. *For Freight charges:* Order Management does not insert a value into this column.

Table 2–43 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
UNIT_SELLING_PRICE_PER_PQTY		NUMBER	Unit Selling Price Per Pricing Quantity.
UNIT_STANDARD_PRICE		NUMBER	*For a Sales order line or return line:* Order Management inserts OE_ORDER_LINES.UNIT_LIST_PRICE. *For Freight charges:* Order Management does not insert a value into this column.
PRINTING_OPTION		Varchar2(20)	Order Management does not insert a value into this column.
INTERFACE_STATUS		Varchar2(1)	Order Management does not insert a value into this column.
REQUEST_ID		NUMBER(15)	Order Management does not insert a value into this column.
RELATED_BATCH_SOURCE_NAME		Varchar2(50)	Order Management does not insert a value into this column.
RELATED_TRX_NUMBER		Varchar2(20)	Order Management does not insert a value into this column.
RELATED_CUSTOMER_TRX_ID		NUMBER(15)	Order Management does not insert a value into this column.
PREVIOUS_CUSTOMER_TRX_ID		NUMBER(15)	Order Management does not insert a value into this column.
CREDIT_METHOD_FOR_ACCT_RULE		Varchar2(30)	*For a Sales order line:* Order Management does not insert a value into this column. *For a Return line:* Order Management inserts from based upon the following hierarchy: 1. Line transaction type 2. Order transaction type 3. else insert constant value *LIFO*
CREDIT_METHOD_FOR_INSTALLMENTS		Varchar2(30)	*For a Sales order line:* Order Management does not insert a value into this column. *For a Return line:* Order Management inserts from based upon the following hierarchy: 1. Line transaction type 2. Order transaction type

Table 2–43 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
REASON_CODE		Varchar2(30	*For a Sales order line:* Order Management does not insert a value into this column. *For a Return line:* Order Management inserts OE_ ORDER_LINES.RETURN_ REASON_CODE
TAX_RATE		NUMBER	Order Management does not insert a value into this column.
TAX_CODE		Varchar2(50)	If OM: *Tax: Allow Override of Tax Code = Yes,* then pass oe_order_lines.tax_code
TAX_PRECEDENCE		NUMBER(15)	Order Management does not insert a value into this column.
EXCEPTION_ID		NUMBER(15)	Order Management does not insert a value into this column.
EXEMPTION_ID		NUMBER(15)	Order Management does not insert a value into this column.
SHIP_DATE_ACTUAL		Date	*For a Shipped order lines and for Freight charge lines:* Order Management inserts: wsh_new_ deliveries.initial_pickup_date. *For a Non-shipped order line:* Order Management does not insert a value into this column. *For Freight charges:* Order Management inserts OE_ ORDER_LINE_ACTUAL_SHIPMENT_DATE.
FOB_POINT		Varchar2(20)	Order Management only populates this column if the order line being invoiced has been shipped. *For a Shipped order line:* Order Management inserts OE_ORDER_LINES.FOB_POINT_CODE. *For a Non-shipped order line:* Order Management does not insert a value into this column. *For Freight charges:* Order Management inserts OE_ ORDER_LINES.FOB_POINT_CODE.
SHIP_VIA		Varchar2(20)	Either nvl(wsh_carrier_ship_methods_v.feight_code **or** oe_order_lines.freight_carrier_code)
WAYBILL_NUMBER		Varchar2(50)	*For a Shipped order line and For Freight charges:* Order Management inserts: substr(wsh_new_ deliveries.waybill,1,30) *For a Non-shipped order line:* Order Management does not insert a value into this column.

Table 2–43 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
INVOICING_RULE_ NAME		Varchar2(30)	Order Management does not insert a value into this column.
INVOICING_RULE_ID		NUMBER(15)	*For a Sales order line and for Freight charge lines:* Order Management inserts DECODE(ACCOUNTING_ RULE_ID,1, NULL,INVOICING_RULE_ID). *For a Non-shipped order line:* Order Management does not insert a value into this column.
ACCOUNTING_RULE_ NAME		Varchar2(30)	Order Management does not insert a value into this column.
ACCOUNTING_RULE_ID		NUMBER(15)	*For a Sales order line and for Freight charge* lines*:* Order Management inserts DECODE(ACCOUNTING_ RULE_ID,1, NULL,ACCOUNTING_RULE_ID). *For a Return line:* Order Management does not insert a value into this column.
ACCOUNTING_RULE_ DURATION		NUMBER(15)	If the accounting rule is of type *Variable Duration* then insert *Service Duration* for Service lines.
RULE_START_DATE		Date	Order Management does not insert a value into this column.
PRIMARY_SALESREP_ NUMBER		Varchar2(30)	Order Management does not insert a value into this column.
PRIMARY_SALESREP_ID		NUMBER(15)	Order Management inserts NVL (OE_ORDER_ LINES.SALESREP_ID, OE_ORDER_ HEADERS.SALESREP_ID.
SALES_ORDER		Varchar2(50)	Order Management inserts OE_ORDER_ HEADERS.ORDER_NUMBER.
SALES_ORDER_LINE		Varchar2(30)	*For a Sales order or return line:* Order Management inserts OE_ORDER_LINES.LINE_NUMBER. *For Freight charges:* Order Management does not insert a value into this column.
SALES_ORDER_DATE		Date	Order Management inserts OE_ORDER_ HEADERS.ORDERED_DATE.
SALES_ORDER_SOURCE		Varchar2(50)	Order Management inserts your value for the *OM: Source Code* profile option.
SALES_ORDER_REVISION		NUMBER	Order Management does not insert a value into this column.

Table 2–43 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
PURCHASE_ORDER		Varchar2(50)	Order Management inserts OE_ORDER_ HEADERS.LINES.CUST_PO_ NUMBER.
PURCHASE_ORDER_ REVISION		Varchar2(50)	Order Management does not insert a value into this column.
PURCHASE_ORDER_ DATE		Date	Order Management does not insert a value into this column.
AGREEMENT_NAME		Varchar2(30)	Order Management does not insert a value into this column.
AGREEMENT_ID		NUMBER(15)	*For a Sales order line:* Order Management inserts OE_ ORDER_LINES.AGREEMENT_ID. *For a Return line with a purchase order or sales order reference:* Order Management inserts the AGREEMENT_ID from the referenced order line. *For return lines with an invoice reference:* Order Management does not insert a value into this column. *For Freight charges:* Order Management does not insert a value into this column.
MEMO_LINE_NAME		Varchar2(50)	Order Management does not insert a value into this column.
MEMO_LINE_ID		NUMBER(15)	Order Management does not insert a value into this column.
INVENTORY_ITEM_ID		NUMBER(15)	*For a Sales order or return line:* Order Management inserts OE_ORDER_LINES.INVENTORY_ITEM_ID. *For Freight charges:* Order Management does not insert a value into this column. If the profile option TAX: Invoice Freight As Revenue is set to Yes, the value of the profile option TAX: Inventory Item For Freight is used.
MTL_SYSTEM_ITEMS_ SEG1....20		Varchar2(30)	Order Management does not insert values into any of these columns.

Table 2–43 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
REFERENCE_LINE_ID		NUMBER(15)	*For a Sales order line:* Order Management inserts OE_ORDER_LINES.COMMITMENT_ID. *For a Return line:* Order Management inserts OE_ORDER_LINES.CREDIT_INVOICE_LINE_ID. *For Freight charges:* Order Management does not insert a value into this column.
REFERENCE_LINE_CONTEXT		Varchar2(30)	Order Management does not insert a value into this column.
REFERENCE_LINE_ATTRIBUTE1....15		Varchar2(30)	Order Management does not insert a value into this column.
TERRITORY_ID		NUMBER(15)	Order Management does not insert a value into this column.
TERRITORY_SEGMENT1....20		Varchar2(25)	Order Management does not insert a value into this column.
ATTRIBUTE_CATEGORY		Varchar2(30)	*For a Sales order or return line:* Order Management inserts OE_ORDER_LINES.CONTEXT. *For Freight charges:* Order Management inserts OE_CHARGE_LINES_V.CONTEXT.
ATTRIBUTE1...15		Varchar2(150)	*For a Sales order or return line:* Order Management inserts OE_ORDER_LINES.ATTRIBUTE1-15. *For Freight charges:* Order Management inserts OE_CHARGE_LINES_V. ATTRIBUTE1-15.
HEADER_ATTRIBUTE_CATEGORY		Varchar2(30)	*For Sales order or return line:* Order Management inserts OE_ORDER_HEADERS.CONTEXT. *For Freight charges:* Order Management does not insert a value into this column.
HEADER_ATTRIBUTE1...15		Varchar2(150)	*For a Sales order or return line:* Order Management inserts OE_ORDER_LINES.ATTRIBUTE1-15. *For Freight charges:* Order Management does not insert a value into this column.
COMMENTS		Varchar2(240)	Order Management does not insert a value into this column.
INTERNAL_NOTES		Varchar2(240)	Order Management does not insert a value into this column.

Table 2–43 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
INITIAL_CUSTOMER_TRX_ID		NUMBER(15)	Order Management does not insert a value into this column.
USSGL_TRANSACTION_CODE_CONTEXT		Varchar2(30)	Order Management does not insert a value into this column.
USSGL_TRANSACTION_CODE		Varchar2(30)	Order Management does not insert a value into this column.
ACCTD_AMOUNT		NUMBER	Order Management does not insert a value into this column.
CUSTOMER_BANK_ACCOUNT_ID		NUMBER(15)	Order Management does not insert a value into this column.
CUSTOMER_BANK_ACCOUNT_NAME		Varchar2(25)	Order Management does not insert a value into this column.
UOM_CODE		Varchar2(3)	*For a Sales order or return line:* Order Management inserts OE_ORDER_LINES.SHIPPING_QUANTITY_UOM. *For Freight charges:* Order Management does not insert a value into this column.
UOM_NAME		Varchar2(25)	Order Management does not insert a value into this column.
DOCUMENT_NUMBER_SEQUENCE_ID		NUMBER(15)	Order Management does not insert a value into this column.
REASON_CODE_NAME		Varchar2(30)	Order Management does not insert a value into this column.
VAT_TAX_ID		NUMBER(15)	Order Management does not insert a value into this column.
LOCATION_RATE_ID		NUMBER(15)	Order Management does not insert a value into this column.
REASON_CODE_MEANING		Varchar2(80)	Order Management does not insert a value into this column.
LAST_PERIOD_TO_CREDIT		NUMBER	Order Management does not insert a value into this column.
PAYING_CUSTOMER_ID		NUMBER(15)	Order Management does not insert a value into this column.
PAYING_SITE_USE_ID		NUMBER(15)	Order Management does not insert a value into this column.

Table 2–43 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
TAX_EXEMPT_FLAG		Varchar2(10)	Order Management inserts OE_HEADERS.TAX_ EXEMPT_FLAG for order lines.
SALES_TAX_ID		NUMBER(15)	Order Management does not insert a value into this column.
CREATED_BY		NUMBER(15)	Order Management enters an identification number to identify the user who created the record. No Validation occurs
CREATION_DATE		Date	Order Management enters the current system date when a record is created.
LAST_UPDATED_BY		NUMBER(15)	Order Management enters an identification number to identify the user who created or who most recently modified the record. No Validation occurs
LAST_UPDATE_DATE		Date	Order Management enters the current date when a record is updated. Standard Validation occurs
LOCATION_SEGMENT_ID		NUMBER(15)	Order Management does not insert a value into this column.
TAX_EXEMPT_REASON_ CODE		Varchar2(30)	Order Management inserts OE_ORDER_ LINE.TAX_EXEMPT_REASON_ CODE for order lines.
TAX_EXEMPT_NUMBER		Varchar2(80)	Order Management inserts OE_ORDER_ LINE.TAX_EXEMPT_NUMBER for order lines.
TAX_EXEMPT_REASON_ CODE_MEANING		Varchar2(80)	Order Management does not insert a value into this column.

Derived Values

CUST_TRX_TYPE_ID

Value is determined based upon the following hierarchy:

For a Sales order line:

i. Line transaction type

j. Order Transaction type

k. Profile *OM: Invoice Transaction type*

For referenced return line: Retrieve receivables transaction type from:

a. Line transaction type

b. order transaction type only if order_category is RETURN.

c. Derive credit memo type based on return context and reference information.

d. profile *OM: Credit memo Transaction Type*

For non-referenced return line:

a. Line transaction type

b. order transaction type only if order_category is RETURN.

c. Derive credit memo type based on return context and reference information.

d. profile *OM: Credit memo Transaction Type*

For freight charges:

Freight charges are value is the same as the order/return line that is interfacing the freight charge.

RA_INTERFACE_SALESCREDITS

Order Management inserts one row for each sales credit row according to the following hierarchy:

1. Insert sales credits associated with the line; if none exists but the line is part of a configuration (ITEM_TYPE_CODE is CLASS, KIT or STANDARD and OPTION_FLAG is Y), then;
2. Insert sales credits associated with the model *parent* line; if none exists, then;
   - Insert sales credits associated with the order header.

Table 2–44 RA_INTERFACE_SALESCREDITS

Column	Null?	Type	Description
INTERFACE_SALESCREDIT_ ID		NUMBER(15)	Order Management does not insert a value into this column.
INTERFACE_LINE_ID		NUMBER(15)	Order Management does not insert a value into this column.
INTERFACE_LINE_CONTEXT		Varchar2(30)	Order Management inserts your value for the *OM: Source Code profile option.*
INTERFACE_LINE_ ATTRIBUTE1		Varchar2(30)	Order Management inserts OE_ORDER_LINE. ORDER_NUMBER.
INTERFACE_LINE_ ATTRIBUTE2		Varchar2(30)	Order Management inserts OE_ TRANSACTION_TYPES.NAME.
INTERFACE_LINE_ ATTRIBUTE3		Varchar2(30)	*For a Shipped order line and for Freight Charges:* Order Management inserts substr(wsh_new_ deliveries.name1..30 For a Non-shipped order line or a Return Line: Order Management inserts 0 (zero).
INTERFACE_LINE_ ATTRIBUTE4		Varchar2(30)	*For a Shipped order line and for Freight Charges:* Order Management inserts: substr(wsh_new_ deliveries.waybill1..30 For a Non-shipped order line or a Return Line: Order Management inserts 0 (zero). Order Management inserts SUBSTR (WSH_ DELIVERY_LINE_STATUS_V.WAYBILL, 1, 30).
INTERFACE_LINE_ ATTRIBUTE5		Varchar2(30)	Order Management inserts the number of times the order, freight charge, or return line has been interfaced for invoice or credit.
INTERFACE_LINE_ ATTRIBUTE6		Varchar2(30)	*For a Sales order or return line:* Order Management inserts OE_ORDER_LINES.LINE_ID. *For Freight charges:* OE_CHARGE_LINES_ V.CHARGE_ID.
INTERFACE_LINE_ ATTRIBUTE7		Varchar2(30)	For a Shipped order line, a Return line, or Freight charges: Order Management inserts 0 (zero).

Table 2–44 RA_INTERFACE_SALESCREDITS

Column	Null?	Type	Description
INTERFACE_LINE_ ATTRIBUTE8		Varchar2(30)	*For a Shipped order line:* Order Management inserts WSH_DEPARTURES. BILL_OF_ LADING. *For a Return line, or Freight charges:* Order Management inserts 0 (zero)
INTERFACE_LINE_ ATTRIBUTE9		Varchar2(30)	Order Management inserts the customer item number if one is defined. Otherwise, it inserts 0 (zero).
INTERFACE_LINE_ ATTRIBUTE10		Varchar2(30)	Order Management inserts OE_ORDER_LINES. SHIP_FROM_ORG_ID.
INTERFACE_LINE_ ATTRIBUTE11		Varchar2(30)	oe_price_adjustments.price_adjustment_id for discount lines: profile (OM: Show Discount Details on Invoice must be Yes.). For all other lines '0' is passed.
INTERFACE_LINE_ ATTRIBUTE12....15		Varchar2(30)	Order Management does not insert a value into this column.
SALESREP_NUMBER		Varchar2(30	Order Management does not insert a value into this column.
SALESREP_ID		)NUMBER(15)	Order Management inserts OE_SALES_ CREDIT.SALESREP_ID.
SALES_CREDIT_TYPE_NAME			Order Management does not insert a value into this column.
SALES_CREDIT_TYPE_ID		NUMBER(15)	Order Management inserts OE_SALES_ CREDIT.SALES_CREDIT_ TYPE_ID.
SALES_CREDIT_AMOUNT_ SPLIT		NUMBER	Order Management does not insert a value into this column.
SALES_CREDIT_PERCENT_ SPLIT		NUMBER	Order Management inserts OE_SALES_ CREDIT.PERCENT.
INTERFACE_STATUS		Varchar(1)	Order Management does not insert a value into this column.

Table 2–44 RA_INTERFACE_SALESCREDITS

Column	Null?	Type	Description
REQUEST_ID		NUMBER(15)	Order Management does not insert a value into this column.
ATTRIBUTE_CATEGORY		Varchar(30)	Order Management inserts OE_SALES_CREDIT.CONTEXT.
ATTRIBUTE1...15		Varchar(150)	Order Management inserts OE_SALES_CREDIT.ATTRIBUTE1....15.

3

Oracle Advanced Pricing Open Interfaces

This chapter contains information about the following Oracle Advanced Pricing open interfaces and application program interfaces (APIs):

- Agreements Public Application Program Interface on page 3-3
- Attribute Mapping Application Program Interface on page 3-49
- Business Object for Modifier Setup Application Program Interface on page 3-60
- Business Object for Pricing Formulas Application Program Interface on page 3-133
- Business Object for Pricing Limits Application Program Interface on page 3-157
- Get Currency Application Program Interface on page 3-177
- Get Custom Price Application Program Interface on page 3-179
- Get Price List Application Program Interface on page 3-184
- Multi-Currency Conversion Setup Application Program Interface on page 3-186
- Price List Setup Application Program Interface on page 3-198
- Price Request Application Program Interface on page 3-254
- QP_ATTRIBUTES_PUB Application Program Interface on page 3-292
- QP_ATTR_MAPPING_PUB Application Program Interface on page 3-302
- Qualifiers Application Program Interface on page 3-307
- Reverse Limits Application Program Interface on page 3-327
- Round Price Application Program Interface on page 3-332
- Validate_Price_list_Curr_code Application Program Interface on page 3-335

Key of Short Names

A key of the short names and definitions used in the API tables are provided in the following table:

Table 3–1 Key of Short Names

Short name	Definition
Drv	Derived
Req	Required **Yes** this is a required parameter **No** this is an optional parameter
N/A (no entry)	No value/not applicable

Agreements Public Application Program Interface

This section explains how to use the Agreements Public API and how it functions in Oracle Advanced Pricing. The Agreements Public package consists of entities to support creating and maintaining agreements.

Functional Overview

Process_Agreement processes inserts, updates, and deletes records related to agreements.

Setting Up and Parameter Descriptions

The following tables describe all parameters used by the public Agreements Public API. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

PROCESS_AGREEMENT

The following table shows the parameters for this structure.

Table 3–2 PROCESS_AGREEMENT Parameters

Parameter	Usage	Type	Req	Drv
p_api_version_number	IN	Number	No	No
p_init_msg_list	IN	Varchar2	No	No
p_return_values	IN	Varchar2	No	No
p_commit	IN	Varchar2	No	No
x_return_status	OUT	Varchar2	No	No
x_msg_count	OUT	Number	No	No
x_msg_data	OUT	Varchar2	No	No
p_Agreement_rec	IN	Agreement_Rec_Type	No	No
p_Agreement_value_rec	IN	Agreement_Val_Rec_Type	No	No
p_Price_LHeader_rec	IN	QP_Price_List_PUB.Price_List_Rec_Type	No	No
p_Price_LHeader_val_rec	IN	QP_Price_List_PUB.Price_List_Val_Rec_Type	No	No
p_Price_LLine_tbl	IN	QP_Price_List_PUB.Price_List_Line_Tbl_Type	No	No
p_Price_LLine_val_tbl	IN	QP_Price_List_PUB.Price_List_Val_Tbl_Type	No	No

Table 3–2 PROCESS_AGREEMENT Parameters

Parameter	Usage	Type	Req	Drv
p_Pricing_Attr_tbl	IN	QP_Price_List_PUB.Pricing_Attr_Tbl_Type	No	No
p_Pricing_Attr_val_tbl	IN	QP_Price_List_PUB.Pricing_Attr_Val_Tbl_Type	No	No
x_Agreement_rec	OUT	Agreement_Rec_Type	No	No
x_Agreement_val_rec	OUT	Agreement_Val_Rec_Type	No	No
x_Price_LHeader_rec	OUT	QP_Price_List_PUB.Price_List_Rec_Type	No	No
x_Price_LHeader_val_rec	OUT	QP_Price_List_PUB.Price_List_Val_Rec_Type	No	No
x_Price_LLine_tbl	OUT	QP_Price_List_PUB.Price_List_Line_Tbl_Type	No	No
x_Price_LLine_val_tbl	OUT	QP_Price_List_PUB.Price_List_Line_Val_Tbl_Type	No	No
x_Pricing_Attr_tbl	OUT	QP_Price_List_PUB.Pricing_Attr_Tbl_Type	No	No
x_Pricing_Attr_val_tbl	OUT	QP_Price_List_PUB.Pricing_Attr_Val_Tbl_Type	No	No

AGREEMENT_REC_TYPE

The following table shows the parameters for this structure.

Table 3–3 AGREEMENT_REC_TYPE

Parameter	Usage	Type	Req	Drv
accounting_rule_id	Null	Number	No	No
agreement_contact_id	Null	Number	No	No
agreement_id	Null	Number	Yes[1]	No
agreement_num	Null	Varchar2(50)	No	No
agreement_type_code	Null	Varchar2(30)	No	No
attribute1	Null	Varchar2(150)	No	No
attribute2	Null	Varchar2(150)	No	No
attribute3	Null	Varchar2(150)	No	No
attribute4	Null	Varchar2(150)	No	No
attribute5	Null	Varchar2(150)	No	No
attribute6	Null	Varchar2(150)	No	No

Table 3–3 AGREEMENT_REC_TYPE

Parameter	Usage	Type	Req	Drv
attribute7	Null	Varchar2(150)	No	No
attribute8	Null	Varchar2(150)	No	No
attribute9	Null	Varchar2(150)	No	No
attribute10	Null	Varchar2(150)	No	No
attribute11	Null	Varchar2(150)	No	No
attribute12	Null	Varchar2(150)	No	No
attribute13	Null	Varchar2(150)	No	No
attribute14	Null	Varchar2(150)	No	No
attribute15	Null	Varchar2(150)	No	No
comments	Null	Varchar2(30)	No	No
context	Null	Varchar2(30)	No	No
created_by	Null	Number	Yes	No
creation_date	Null	Date	Yes	No
sold_to_org_id	Null	Number	No	No
end_date_active	Null	Date	No	No
freight_terms_code	Null	Varchar2(30)	No	No
invoice_contact_id	Null	Number	No	No
invoice_to_org_id	Null	Number	No	No
invoicing_rule_id	Null	Number	No	No
last_updated_by	Null	Number	Yes	No
last_update_date	Null	Date	Yes	No
last_update_login	Null	Number	No	No
name	Null	Varchar2(30)	Yes	No
override_arule_flag	Null	Varchar2(1)	Yes	No
override_irule_flag	Null	Varchar2(1)	Yes	No
price_list_id	Null	Number	Yes[2]	No
pricing_contract_id	Null	Number	No	No

Table 3–3 AGREEMENT_REC_TYPE

Parameter	Usage	Type	Req	Drv
purchase_order_num	Null	Varchar2(50)	No	No
revision	Null	Varchar2(50)	Yes	No
revision_date	Null	Date	Yes	No
revision_reason_code	Null	Varchar2(30)	No	No
salesrep_id	Null	Number	No	No
ship_method_code	Null	Varchar2(30)	No	No
signature_date	Null	Date	No	No
start_date_active	Null	Date	No	No
term_id	Null	Number	Yes	No
return_status	Null	Varchar2(1)	No	No
db_flag	Null	Varchar2(1)	No	No
operation	Null	Varchar2(30)	Yes	No
tp_attribute1	Null	Varchar2(240)	No	No
tp_attribute2	Null	Varchar2(240)	No	No
tp_attribute3	Null	Varchar2(240)	No	No
tp_attribute4	Null	Varchar2(240)	No	No
tp_attribute5	Null	Varchar2(240)	No	No
tp_attribute6	Null	Varchar2(240)	No	No
tp_attribute7	Null	Varchar2(240)	No	No
tp_attribute8	Null	Varchar2(240)	No	No
tp_attribute9	Null	Varchar2(240)	No	No
tp_attribute10	Null	Varchar2(240)	No	No
tp_attribute11	Null	Varchar2(240)	No	No
tp_attribute12	Null	Varchar2(240)	No	No
tp_attribute13	Null	Varchar2(240)	No	No
tp_attribute14	Null	Varchar2(240)	No	No
tp_attribute15	Null	Varchar2(240)	No	No

Table 3–3 AGREEMENT_REC_TYPE

Parameter	Usage	Type	Req	Drv
tp_attribute_category	Null	Varchar2(30)	No	No
agreement_source_code	Null	Varchar2(30)	No	No
orig_system_agr_id	Null	Number	No	No

The following table describes notations listed in the preceding table:

Table 3–4 Notations

Note	Description
1	For update and delete
2	If you are not passing a price list record

AGREEMENT_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–5 AGREEMENT_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Agreement_Rec_Type	Null	Record	No	No

AGREEMENT_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–6 AGREEMENT_VAL_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
accounting_rule	Null	Varchar2(240)	Null	Null
agreement_contact	Null	Varchar2(240)	Null	Null
agreement	Null	Varchar2(240)	Null	Null
agreement_type	Null	Varchar2(240)	Null	Null
customer	Null	Varchar2(240)	Null	Null
freight_terms	Null	Varchar2(240)	Null	Null
invoice_contact	Null	Varchar2(240)	Null	Null
invoice_to_site_use	Null	Varchar2(240)	Null	Null
invoicing_rule	Null	Varchar2(240)	Null	Null
override_arule	Null	Varchar2(240)	Null	Null
override_irule	Null	Varchar2(240)	Null	Null
price_list	Null	Varchar2(240)	Null	Null

Table 3–6 AGREEMENT_VAL_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
revision_reason	Null	Varchar2(240)	Null	Null
salesrep	Null	Varchar2(240)	Null	Null
ship_method	Null	Varchar2(240)	Null	Null
term	Null	Varchar2(240)	Null	Null

AGREEMENT_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–7 AGREEMENT_VAL_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Agreement_Val_Rec_Type	Null	Record	No	No

PRICE_LIST_REC_TYPE

The following table shows the parameters for this structure.

Table 3–8 PRICE_LIST_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No
attribute12	Null	Varchar2	No	No

Table 3–8 PRICE_LIST_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No
automatic_flag	Null	Varchar2	No	No
comments	Null	Varchar2	No	No
context	Null	Varchar2	No	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
currency_code	Null	Varchar2	Yes	No
discount_lines_flag	Null	Varchar2	No	No
end_active_date	Null	Date	No	No
freight_terms_code	Null	Varchar2	No	No
gsa_indicator	Null	Varchar2	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
list_header_id	Null	Number	No	No
list_type_code	Null	Varchar2	No	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No
prorate_flag	Null	Varchar2	No	No
request_id	Null	Number	No	No
rounding_factor	Null	Number	No	No
ship_method_code	Null	Varchar2	No	No
start_date_active	Null	Date	No	No
terms_id	Null	Number	No	No

Table 3–8 PRICE_LIST_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	Yes	No
name	Null	Varchar2	Yes	No
description	Null	Varchar2	No	No
version_no	Null	Varchar2	No	No
active_flag	Null	Varchar2	No	No
mobile_download	Null	Varchar2	No	No
currency_header_id	Null	Number	No	No
pte_code	Null	Varchar2	No	Yes
list_source_code	Null	Varchar2	No	No
orig_system_header_ref	Null	Varchar2	No	No
global_flag	Null	Varchar2	No	No
orig_org_id	Null	Number	No	No

PRICE_LIST_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–9 PRICE_LIST_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Price_List_Rec_Type	Null	Record	No	No

PRICE_LIST_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–10 PRICE_LIST_VAL_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
automatic	Null	Varchar2	No	No
currency	Null	Varchar2	No	No

Table 3–10 PRICE_LIST_VAL_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
discount_lines	Null	Varchar2	No	No
freight_terms	Null	Varchar2	No	No
list_header	Null	Varchar2	No	No
list_type	Null	Varchar2	No	No
prorate	Null	Varchar2	No	No
ship_method	Null	Varchar2	No	No
terms	Null	Varchar2	No	No
currency_header	Null	Varchar2	No	No
pte	Null	Varchar2	No	No

PRICE_LIST_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–11 PRICE_LIST_VAL_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Price_List_Val_Rec_Type	Null	Record	No	No

PRICE_LIST_LINE_REC_TYPE

The following table shows the parameters for this structure:

Table 3–12 PRICE_LIST_LINE_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
accrual_qty	Null	Number	No	No
accrual_uom_code	Null	Varchar2	No	No
arithmetic_operator	Null	Varchar2	No	No
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No

Table 3–12 PRICE_LIST_LINE_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
automatic_flag	Null	Varchar2	No	No
base_qty	Null	Number	No	No
base_uom_code	Null	Varchar2	No	No
comments	Null	Varchar2	No	No
context	Null	Varchar2	No	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
effective_period_uom	Null	Varchar2	No	No
end_date_active	Null	Date	No	No
estim_accrual_rate	Null	Number	No	No
generate_using_formula_id	Null	Number	No	No
inventory_item_id	Null	Number	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
list_header_id	Null	Number	No	No
list_line_id	Null	Number	No	No
list_line_type_code	Null	Varchar2	No	No
list_price	Null	Number	No	No
modifier_level_code	Null	Varchar2	No	No
number_effective_periods	Null	Number	No	No
operand	Null	Number	No	No
organization_id	Null	Number	No	No
override_flag	Null	Varchar2	No	No
percent_price	Null	Number	No	No
price_break_type_code	Null	Varchar2	No	No
price_by_formula_id	Null	Number	No	No

Table 3–12 PRICE_LIST_LINE_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
primary_uom_flag	Null	Varchar2	No	No
print_on_invoice_flag	Null	Varchar2	No	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No
rebate_trxn_type_code	Null	Varchar2	No	No
related_item_id	Null	Number	No	No
relationship_type_id	Null	Number	No	No
reprice_flag	Null	Varchar2	No	No
request_id	Null	Number	No	No
revision	Null	Varchar2	No	No
revision_date	Null	Date	No	No
revision_reason_code	Null	Varchar2	No	No
start_date_active	Null	Date	No	No
substitution_attribute	Null	Varchar2	No	No
substitution_context	Null	Varchar2	No	No
substitution_value	Null	Varchar2	No	No
return_status	Null	Varchar2	No	No
db_flag	Null‘	Varchar2	No	No
operation	Null	Varchar2	No	No
from_rltd_modifier_id	Null	Number	No	No
rltd_modifier_group_no	Null	Number	No	No
rltd_modifier_grp_type	Null	Varchar2	No	No
product_precedence	Null	Number	No	No
price_break_header_index	Null	Number	No	No
list_line_no	Null	Number	No	Yes
qualification_ind	Null	Number	No	Yes

PRICE_LIST_LINE_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–13 PRICE_LIST_LINE_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Price_List_Line_Rec_Type	Null	Record	No	No

PRICE_LIST_LINE_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–14 PRICE_LIST_LINE_VAL_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
accrual_uom	Null	Varchar2	No	No
automatic	Null	Varchar2	No	No
base_uom	Null	Varchar2	No	No
generate_using_formula	Null	Varchar2	No	No
inventory_item	Null	Varchar2	No	No
list_header	Null	Varchar2	No	No
list_line	Null	Varchar2	No	No
list_line_type	Null	Varchar2	No	No
modifier_level	Null	Varchar2	No	No
organization	Null	Varchar2	No	No
override	Null	Varchar2	No	No
price_break_type	Null	Varchar2	No	No
price_by_formula	Null	Varchar2	No	No
primary_uom	Null	Varchar2	No	No
print_on_invoice	Null	Varchar2	No	No
rebate_transaction_type	Null	Varchar2	No	No
related_item	Null	Varchar2	No	Null
relationship_type	Null	Varchar2	No	Null

Table 3–14 PRICE_LIST_LINE_VAL_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
reprice	Null	Varchar2	No	Null
revision_reason	Null	Varchar2	No	Null

PRICE_LIST_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–15 PRICE_LIST_VAL_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Price_List_Line_Val_Rec_Type	Null	Record	No	No

PRICING_ATTR_REC_TYPE

The following table shows the parameters for this structure.

Table 3–16 PRICING_ATTR_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
accumulate_flag	Null	Varchar2	No	No
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No
attribute_grouping_number	Null	Number	No	No
context	Null	Varchar2	No	No

Table 3–16 PRICING_ATTR_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
excluder_flag	Null	Varchar2	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
list_line_id	Null	Number	No	No
pricing_attribute	Null	Varchar2	No	No
pricing_attribute_context	Null	Varchar2	No	No
pricig_attribute_id	Null	Number	No	No
pricing_attr_value_from	Null	Varchar2	No	No
pricing_attr_value_to	Null	Varchar2	No	No
product_attribute	Null	Varchar2	Yes	No
product_attribute_context	Null	Varchar2	Yes	No
product_attr_value	Null	Varchar2	Yes	No
product_uom_code	Null	Varchar2	Yes	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No
request_id	Null	Number	No	No
pricing_attr_value_from_ number	Null	Number	No	Yes
pricing_attr_value_to_number	Null	Number	No	Yes
qualification_ind	Null	Number	No	Yes
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	Yes	No

Table 3–16 PRICING_ATTR_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
PRICE_LIST_LINE_index	Null	Number	No	No
from_rltd_modifier_id	Null	Number	No	No
comparison_operator_code	Null	Varchar2	Yes	No
product_attribute_datatype	Null	Varchar2	No	Yes
pricing_attrubute_datatype	Null	Varchar2	No	Yes
list_header_id	Null	Number	No	Yes
pricing_phase_id	Null	Number	No	Yes

PRICING_ATTR_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–17 PRICING_ATTR_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Pricing_Attr_Rec_Type	Null	Record	No	No

PRICING_ATTR_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–18 PRICING_ATTR_VAL_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
accumulate	Null	Varchar2	No	No
excluder	Null	Varchar2	No	No
list_line	Null	Varchar2	No	No
pricing_attribute	Null	Varchar2	No	No
product_uom	Null	Varchar2	No	No
pricing_attribute_desc	Null	Varchar2	No	No
pricing_attr_value_from_desc	Null	Varchar2	No	No
pricing_attr_value_to_desc	Null	Varchar2	No	No

PRICE_LIST_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–19 PRICE_LIST_VAL_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Pricing_Attr_Val_Rec_ Type	Null	Record	No	No

Validation of Agreements Public API

Standard Validation

Oracle Advanced Pricing validates all required columns in the Agreements Public API. For specific information on the data implied by these columns, see *Oracle Pricing Technical Reference Manual*.

Other Validation

None

Error Handling

If any validation fails, the API will return error status to the calling module. The Agreements Public API processes the rows and reports the values in the following table for every record.

Table 3–20 Error Handling

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	null
Failure	4	actual error message

Example of Agreements Public API

The following sample code demonstrates Agreements Public API.

Insert an agreement and a price list header

```
SET SERVEROUTPUT ON SIZE 200000

declare

    out_return_status varchar2(1) := NULL;
    out_msg_count number := 0;
    out_msg_data varchar2(2000);

    in_Agreement_recOE_Pricing_Cont_PUB.Agreement_Rec_Type;
    in_Agreement_val_recOE_Pricing_Cont_PUB.Agreement_Val_Rec_Type;
    in_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;

    in_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
```

```
    in_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
    in_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
    in_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
    in_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;
    out_Agreement_rec             OE_Pricing_Cont_PUB.Agreement_Rec_Type;
    out_Agreement_val_rec         OE_Pricing_Cont_PUB.Agreement_Val_Rec_Type;
    out_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
    out_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
    out_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
    out_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
    out_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
    out_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;

K number := 1;

j number := 1;

begin

dbms_output.put_line('Creating an Agreement record');

--Creating an Agreement record

in_Agreement_rec.name :='TESTING 2001';
in_Agreement_rec.creation_date :=sysdate;
in_Agreement_rec.created_by := 1001;
in_Agreement_rec.last_update_date := sysdate;
in_Agreement_rec.last_updated_by := 9001;
in_Agreement_rec.agreement_type_code := 'STANDARD';
in_Agreement_rec.agreement_num := '88';
in_Agreement_rec.revision := '1';
in_Agreement_rec.revision_date := sysdate;
in_Agreement_rec.term_id := 1000;
in_Agreement_rec.OVERRIDE_IRULE_FLAG := 'Y';
in_Agreement_rec.OVERRIDE_ARULE_FLAG := 'Y';
in_Agreement_rec.agreement_id := FND_API.G_MISS_NUM;
in_Agreement_rec.operation          := QP_GLOBALS.G_OPR_CREATE;

    /* set the list_header_id to g_miss_num */

    in_price_list_rec.list_header_id := FND_API.G_MISS_NUM;
    in_price_list_rec.name := 'Sample1-1028 -8987';
    in_price_list_rec.list_type_code := 'AGR';
    in_price_list_rec.description := 'Sample price list 8987';
    in_price_list_rec.currency_code := 'USD';
```

```
    in_price_list_rec.operation := QP_GLOBALS.G_OPR_CREATE;

oe_debug_pub.add('Calling the process Agreements API');

    OE_Pricing_Cont_PUB.Process_Agreement

(   p_api_version_number=> 1.0
,   p_init_msg_list=> FND_API.G_FALSE
,   p_return_values=> FND_API.G_FALSE
,   p_commit=> FND_API.G_FALSE
,   x_return_status=> out_return_status
,   x_msg_count=> out_msg_count
,   x_msg_data=> out_msg_data
,   p_Agreement_rec=> in_Agreement_rec
,   p_Price_LHeader_rec=> in_price_list_rec
,   p_Price_LLine_tbl=> in_price_list_line_tbl
,   p_Pricing_Attr_tbl=> in_pricing_attr_tbl
,   x_Agreement_rec=> out_Agreement_rec
,   x_Agreement_val_rec=> out_Agreement_val_rec
,   x_Price_LHeader_rec=> out_price_list_rec
,   x_Price_LHeader_val_rec=> out_price_list_val_rec
,   x_Price_LLine_tbl=> out_price_list_line_tbl
,   x_Price_LLine_val_tbl=> out_price_list_line_val_tbl
,   x_Pricing_Attr_tbl=> out_pricing_attr_tbl
,   x_Pricing_Attr_val_tbl=> out_pricing_attr_val_tbl
);

dbms_output.put_line('Agreement ID ='||to_char(out_Agreement_rec.agreement_id));

    IF out_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

oe_debug_pub.add('after process agreement ');

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

        out_return_status := FND_API.G_RET_STS_ERROR;

        --Get message count and data
```

```
        dbms_output.put_line('err msg 1 is : ' || out_msg_data);

    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

       out_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
        dbms_output.put_line(' msg count 2 is : ' || out_msg_count);
        for k in 1 .. out_msg_count loop
    out_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

    );
            --  Get message count and data
            dbms_output.put_line('err msg ' || k ||'is:  ' || out_msg_data);

            null;

    end loop;

    WHEN OTHERS THEN

        out_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

        --Get message count and data
        dbms_output.put_line('err msg 3 is : ' || out_msg_data);

for k in 1 .. out_msg_count loop
out_msg_data := oe_msg_pub.get( p_msg_index => k,
p_encoded => 'F'

 );

--Get message count and data
dbms_output.put_line('err msg ' || k ||'is:  ' || out_msg_data);
null;
end loop;
end;

/
--commit;
--exit;
```

Insert an agreement, a price list header, and lines

```
SET SERVEROUTPUT ON SIZE 200000
```

```
declare

 out_return_status varchar2(1) := NULL;
 out_msg_count number := 0;
 out_msg_data varchar2(2000);
    in_Agreement_recOE_Pricing_Cont_PUB.Agreement_Rec_Type;
    in_Agreement_val_recOE_Pricing_Cont_PUB.Agreement_Val_Rec_Type;
    in_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
    in_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
    in_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
    in_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
    in_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
    in_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;
    out_Agreement_rec             OE_Pricing_Cont_PUB.Agreement_Rec_Type;
    out_Agreement_val_rec         OE_Pricing_Cont_PUB.Agreement_Val_Rec_Type;
    out_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
    out_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
    out_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
    out_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
    out_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
    out_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;

 K number := 1;
 j number := 1;

begin

dbms_output.put_line('Creating an Agreement record');

-- Creating an Agreement record

in_Agreement_rec.name :='TESTING SEAGATE API';
in_Agreement_rec.creation_date :=sysdate;
in_Agreement_rec.created_by := 1001;
in_Agreement_rec.last_update_date := sysdate;
in_Agreement_rec.last_updated_by := 9001;
in_Agreement_rec.agreement_type_code := 'STANDARD';
in_Agreement_rec.agreement_num := '100888';
in_Agreement_rec.revision := '1';

/* Agreement Number and revision must be unique */
in_Agreement_rec.revision_date := sysdate;
in_Agreement_rec.term_id := 1000;
in_Agreement_rec.OVERRIDE_IRULE_FLAG := 'Y';
```

```
in_Agreement_rec.OVERRIDE_ARULE_FLAG := 'Y';
in_Agreement_rec.agreement_id := FND_API.G_MISS_NUM;
in_Agreement_rec.operation    := QP_GLOBALS.G_OPR_CREATE;

    /* set the list_header_id to g_miss_num */
    in_price_list_rec.list_header_id := FND_API.G_MISS_NUM;
    in_price_list_rec.name := 'seagate pricelist1';
    in_price_list_rec.list_type_code := 'AGR';
    in_price_list_rec.description := 'Sample pr 3';
    in_price_list_rec.currency_code := 'USD';
    in_price_list_rec.operation := QP_GLOBALS.G_OPR_CREATE;

FOR K IN 1..3 LOOP
in_price_list_line_tbl(K).list_line_id := FND_API.G_MISS_NUM;
in_price_list_line_tbl(K).list_line_type_code := 'PLL';
in_price_list_line_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;
in_price_list_line_tbl(K).operand := 101;
in_price_list_line_tbl(K).arithmetic_operator := 'UNIT_PRICE';
END LOOP;

/*
product_attr_value stores inventory item id -
product_attribute for Item Number is Pricing_Attribute1
product_attribute_context is ITEM. Each line can have one or more pricing
attributes. We use PRICE_LIST_LINE_INDEX to link the child(pricing attributes )
to the parent(line). When you have pricing attributes like color, length, width
etc, populate the fields pricing_attribute_context, pricing_attribute, pricing_
attr_value_from, pricing_attr_value_to and comparison_operator_code ( '=' or
'between') and repeat the product_attr_value and its attribute and context for
each record.

*/

J := 1;

in_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
in_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62061';
in_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
in_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
in_pricing_attr_tbl(J).ATTRIBUTE_GROUPING_NO := 1;
in_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 1;
in_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;
```

```
J := J + 1;

in_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
in_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62081';
in_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
in_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
in_pricing_attr_tbl(J).ATTRIBUTE_GROUPING_NO := 1;
in_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 2;
in_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

J := J + 1;
in_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
in_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62083';
in_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
in_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
in_pricing_attr_tbl(J).ATTRIBUTE_GROUPING_NO := 1;
in_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 3;
in_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

oe_debug_pub.add('Calling the process Agreements API');
```

OE_Pricing_Cont_PUB.Process_Agreement

```
(   p_api_version_number           => 1.0
,   p_init_msg_list                => FND_API.G_FALSE
,   p_return_values                => FND_API.G_FALSE
,   p_commit                       => FND_API.G_FALSE
,   x_return_status                => out_return_status
,   x_msg_count                    => out_msg_count
,   x_msg_data                     => out_msg_data
,   p_Agreement_rec                => in_Agreement_rec
,   p_Price_LHeader_rec            => in_price_list_rec
,   p_Price_LLine_tbl              => in_price_list_line_tbl
,   p_Pricing_Attr_tbl             => in_pricing_attr_tbl
,   x_Agreement_rec                => out_Agreement_rec
,   x_Agreement_val_rec            => out_Agreement_val_rec
,   x_Price_LHeader_rec            => out_price_list_rec
,   x_Price_LHeader_val_rec        => out_price_list_val_rec
```

```
,   x_Price_LLine_tbl             => out_price_list_line_tbl
,   x_Price_LLine_val_tbl         => out_price_list_line_val_tbl
,   x_Pricing_Attr_tbl              => out_pricing_attr_tbl
,   x_Pricing_Attr_val_tbl          => out_pricing_attr_val_tbl
);

    IF out_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

oe_debug_pub.add('after process agreement ');

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

out_return_status := FND_API.G_RET_STS_ERROR;

--Get message count and data

        dbms_output.put_line('err msg 1 is : ' || out_msg_data);

    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

        out_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

        dbms_output.put_line(' msg count 2 is : ' || out_msg_count);

        for k in 1 .. out_msg_count loop

out_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

    );
        --Get message count and data
        dbms_output.put_line('err msg ' || k ||'is:  ' || out_msg_data);

        null;

    end loop;

    WHEN OTHERS THEN
```

```
        out_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

        --Get message count and data

       dbms_output.put_line('err msg 3 is : ' || out_msg_data);

    for k in 1 .. out_msg_count loop

out_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

    );

        --Get message count and data

        dbms_output.put_line('err msg ' || k ||'is:  ' || out_msg_data);

        null;
end loop;

end;
/
--commit;
--exit;
```

Create an agreement with a standard price list

This script inserts an agreement which uses any existing standard price list. Therefore, you do not need to pass a price list record.

```
declare

    out_return_status varchar2(1) := NULL;
    out_msg_count number := 0;
    out_msg_data varchar2(2000);
    in_Agreement_rec          OE_Pricing_Cont_PUB.Agreement_Rec_Type;
    in_Agreement_val_rec OE_Pricing_Cont_PUB.Agreement_Val_Rec_Type;
    in_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
    in_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
    in_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
    in_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
    in_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
    in_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;
```

```
    out_Agreement_rec             OE_Pricing_Cont_PUB.Agreement_Rec_Type;
    out_Agreement_val_rec         OE_Pricing_Cont_PUB.Agreement_Val_Rec_Type;
    out_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
    out_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
    out_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
    out_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
    out_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
    out_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;

    K number := 1;
    j number := 1;

begin

dbms_output.put_line('Creating an Agreement record');

-- Creating an Agreement record

in_Agreement_rec.name :='Test SEAGATE API 55';
in_Agreement_rec.creation_date :=sysdate;
in_Agreement_rec.created_by := 1001;
in_Agreement_rec.last_update_date := sysdate;
in_Agreement_rec.last_updated_by := 9001;
in_Agreement_rec.agreement_type_code := 'STANDARD';
in_Agreement_rec.agreement_num := '55';
in_Agreement_rec.revision := '1';
in_Agreement_rec.revision_date := sysdate;
in_Agreement_rec.term_id := 1000;
in_Agreement_rec.OVERRIDE_IRULE_FLAG := 'Y';
in_Agreement_rec.OVERRIDE_ARULE_FLAG := 'Y';
in_Agreement_rec.agreement_id := FND_API.G_MISS_NUM;
in_Agreement_rec.operation    := QP_GLOBALS.G_OPR_CREATE;
in_Agreement_rec.price_list_id := 107811;
/*make sure that you are using a price list for which list_type_code is 'PRL'
which means that it is a standard price list */

oe_debug_pub.add('Calling the process Agreements API');
```

OE_Pricing_Cont_PUB.Process_Agreement

```
(   p_api_version_number=> 1.0
,   p_init_msg_list=> FND_API.G_FALSE
,   p_return_values=> FND_API.G_FALSE
,   p_commit=> FND_API.G_FALSE
,   x_return_status=> out_return_status
```

```
,   x_msg_count=> out_msg_count
,   x_msg_data=> out_msg_data
,   p_Agreement_rec=> in_Agreement_rec
,   x_Agreement_rec=> out_Agreement_rec
,   x_Agreement_val_rec=> out_Agreement_val_rec
,   x_Price_LHeader_rec=> out_price_list_rec
,   x_Price_LHeader_val_rec=> out_price_list_val_rec
,   x_Price_LLine_tbl=> out_price_list_line_tbl
,   x_Price_LLine_val_tbl=> out_price_list_line_val_tbl
,   x_Pricing_Attr_tbl=> out_pricing_attr_tbl
,   x_Pricing_Attr_val_tbl=> out_pricing_attr_val_tbl
);

    IF out_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

oe_debug_pub.add('after process agreement ');

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

        out_return_status := FND_API.G_RET_STS_ERROR;

        --Get message count and data

        dbms_output.put_line('err msg 1 is : ' || out_msg_data);

    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

        out_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
        dbms_output.put_line(' msg count 2 is : ' || out_msg_count);

    for k in 1 .. out_msg_count loop

out_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

    );

        --  Get message count and data
```

```
        dbms_output.put_line('err msg ' || k ||'is:  ' || out_msg_data);

            null;

    end loop;

    WHEN OTHERS THEN

        out_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

        --Get message count and data

        dbms_output.put_line('err msg 3 is : ' || out_msg_data);

for k in 1 .. out_msg_count loop
out_msg_data := oe_msg_pub.get( p_msg_index => k,

    p_encoded => 'F'

);

--Get message count and data
dbms_output.put_line('err msg ' || k ||'is:  ' || out_msg_data);
null;
end loop;
end;
/
--commit;
--exit;
```

Update an agreement with a standard price list

This script inserts an agreement which uses any existing standard price list. Therefore, you do not need to pass a price list record.

```
declare

    out_return_status varchar2(1) := NULL;
    out_msg_count number := 0;
    out_msg_data varchar2(2000);
    in_Agreement_rec          OE_Pricing_Cont_PUB.Agreement_Rec_Type;
    in_Agreement_val_rec OE_Pricing_Cont_PUB.Agreement_Val_Rec_Type;
    in_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
    in_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
    in_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
```

```
    in_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
    in_pricing_attr_tbl      QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
    in_pricing_attr_val_tbl     QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;
    out_Agreement_rec             OE_Pricing_Cont_PUB.Agreement_Rec_Type;
    out_Agreement_val_rec         OE_Pricing_Cont_PUB.Agreement_Val_Rec_Type;
    out_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
    out_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
    out_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
    out_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
    out_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
    out_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;
    K number := 1;
    j number := 1;

begin

dbms_output.put_line('Updating  an Agreement record');

-- Updating an Agreement record

in_Agreement_rec.agreement_id :=19034;
in_Agreement_rec.name :='Test NGUHA 22';
in_Agreement_rec.creation_date :=sysdate;
in_Agreement_rec.created_by := 1001;
in_Agreement_rec.last_update_date := sysdate;
in_Agreement_rec.last_updated_by := 9001;
in_Agreement_rec.agreement_type_code := 'STANDARD';
in_Agreement_rec.agreement_num := '22';
in_Agreement_rec.revision := '1';
in_Agreement_rec.revision_date := sysdate;
in_Agreement_rec.term_id := 1000;
in_Agreement_rec.operation    := QP_GLOBALS.G_OPR_UPDATE;
in_Agreement_rec.price_list_id := 107811;

oe_debug_pub.add('Calling the process Agreements API');
```

OE_Pricing_Cont_PUB.Process_Agreement

```
    (   p_api_version_number=> 1.0
    ,   p_init_msg_list=> FND_API.G_FALSE
    ,   p_return_values=> FND_API.G_FALSE
    ,   p_commit=> FND_API.G_FALSE
    ,   x_return_status=> out_return_status
    ,   x_msg_count=> out_msg_count
    ,   x_msg_data=> out_msg_data
```

```
    ,   p_Agreement_rec=> in_Agreement_rec
    ,   x_Agreement_rec=> out_Agreement_rec
    ,   x_Agreement_val_rec=> out_Agreement_val_rec
    ,   x_Price_LHeader_rec=> out_price_list_rec
    ,   x_Price_LHeader_val_rec=> out_price_list_val_rec
    ,   x_Price_LLine_tbl=> out_price_list_line_tbl
    ,   x_Price_LLine_val_tbl=> out_price_list_line_val_tbl
    ,   x_Pricing_Attr_tbl=> out_pricing_attr_tbl
    ,   x_Pricing_Attr_val_tbl=> out_pricing_attr_val_tbl
    );

    IF out_return_status <> FND_API.G_RET_STS_SUCCESS THEN

            RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

     END IF;

oe_debug_pub.add('after process agreement ');

EXCEPTION

        WHEN FND_API.G_EXC_ERROR THEN

            out_return_status := FND_API.G_RET_STS_ERROR;

            --Get message count and data

            dbms_output.put_line('err msg 1 is : ' || out_msg_data);

        WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

            out_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

        dbms_output.put_line(' msg count 2 is : ' || out_msg_count);

    for k in 1 .. out_msg_count loop

out_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

    );
   --Get message count and data
        dbms_output.put_line('err msg ' || k ||'is:  ' || out_msg_data);
```

```
            null;

    end loop;

    WHEN OTHERS THEN

        out_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

        --Get message count and data
        dbms_output.put_line('err msg 3 is : ' || out_msg_data);

for k in 1 .. out_msg_count loop
out_msg_data := oe_msg_pub.get( p_msg_index => k,

    p_encoded => 'F'

    );

--Get message count and data
dbms_output.put_line('err msg ' || k ||'is:  ' || out_msg_data);

null;

end loop;

end;
/
--commit;
--exit;
```

Update agreement record and create agreement price list

```
declare

    out_return_status varchar2(1) := NULL;
    out_msg_count number := 0;
    out_msg_data varchar2(2000);

    in_Agreement_rec          OE_Pricing_Cont_PUB.Agreement_Rec_Type;
    in_Agreement_val_rec OE_Pricing_Cont_PUB.Agreement_Val_Rec_Type;
    in_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
    in_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
    in_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
    in_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
    in_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
```

```
    in_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;
    out_Agreement_rec             OE_Pricing_Cont_PUB.Agreement_Rec_Type;
    out_Agreement_val_rec         OE_Pricing_Cont_PUB.Agreement_Val_Rec_Type;
    out_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
    out_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
    out_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
    out_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
    out_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
    out_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;

    K number := 1;
    j number := 1;

begin

dbms_output.put_line('Updating an Agreement record');

-- Updating an Agreement record

in_Agreement_rec.agreement_id :=19034;
in_Agreement_rec.name :='Test 2002';
in_Agreement_rec.last_update_date := sysdate;
in_Agreement_rec.last_updated_by := 9001;
in_Agreement_rec.agreement_type_code := 'STANDARD';
in_Agreement_rec.revision_date := sysdate;
in_Agreement_rec.term_id := 1897;
in_Agreement_rec.operation    := QP_GLOBALS.G_OPR_UPDATE;

-- We are updating the agreement and creating a new AGR price list

    /* set the list_header_id to g_miss_num */

    in_price_list_rec.list_header_id := FND_API.G_MISS_NUM;
    in_price_list_rec.name := 'SEAGATE NEW AGR 1';
    in_price_list_rec.list_type_code := 'AGR';
    in_price_list_rec.description := 'Sample price list 3';
    in_price_list_rec.currency_code := 'USD';
    in_price_list_rec.operation := QP_GLOBALS.G_OPR_CREATE;

FOR K IN 1..3 LOOP
in_price_list_line_tbl(K).list_line_id := FND_API.G_MISS_NUM;
in_price_list_line_tbl(K).list_line_type_code := 'PLL';
in_price_list_line_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;
in_price_list_line_tbl(K).operand := 101;
in_price_list_line_tbl(K).arithmetic_operator := 'UNIT_PRICE';
```

```
END LOOP;

/*
product_attr_value stores inventory item id -
product_attribute for Item Number is Pricing_Attribute1
product_attribute_context is ITEM. Each line can have one or more pricing
attributes. We use PRICE_LIST_LINE_INDEX to link the child(pricing attributes )
to the parent(line). When you have pricing attributes like color, length, width
etc,populate the fields pricing_attribute_context, pricing_attribute, pricing_
attr_value_from, pricing_attr_value_to and comparison_operator_code ( '=' or
'between') and repeat the product_attr_value and its attribute and context for
each record.

*/

J := 1;

in_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
in_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62061';
--(This is the inventory_item_id)
in_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
in_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
in_pricing_attr_tbl(J).ATTRIBUTE_GROUPING_NO := 1;
in_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 1;
in_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

J := J + 1;

in_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
in_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62081';
--(This is the inventory_item_id)

in_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
in_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
in_pricing_attr_tbl(J).ATTRIBUTE_GROUPING_NO := 1;
in_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 2;
in_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

J := J + 1;
```

```
in_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
in_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62083';
--(This is the inventory_item_id)
in_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
in_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
in_pricing_attr_tbl(J).ATTRIBUTE_GROUPING_NO := 1;
in_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 3;
in_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

oe_debug_pub.add('Calling the process Agreements API');
```

OE_Pricing_Cont_PUB.Process_Agreement

```
(   p_api_version_number=> 1.0
,   p_init_msg_list=> FND_API.G_FALSE
,   p_return_values=> FND_API.G_FALSE
,   p_commit=> FND_API.G_FALSE
,   x_return_status=> out_return_status
,   x_msg_count=> out_msg_count
,   x_msg_data=> out_msg_data
,   p_Agreement_rec=> in_Agreement_rec
,   p_Price_LHeader_rec=> in_price_list_rec
,   p_Price_LLine_tbl=> in_price_list_line_tbl
,   p_Pricing_Attr_tbl=> in_pricing_attr_tbl
,   x_Agreement_rec=> out_Agreement_rec
,   x_Agreement_val_rec=> out_Agreement_val_rec
,   x_Price_LHeader_rec=> out_price_list_rec
,   x_Price_LHeader_val_rec=> out_price_list_val_rec
,   x_Price_LLine_tbl=> out_price_list_line_tbl
,   x_Price_LLine_val_tbl=> out_price_list_line_val_tbl
,   x_Pricing_Attr_tbl=> out_pricing_attr_tbl
,   x_Pricing_Attr_val_tbl=> out_pricing_attr_val_tbl
);

    IF out_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

oe_debug_pub.add('after process agreement ');
```

```
EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

        out_return_status := FND_API.G_RET_STS_ERROR;

        --Get message count and data

        dbms_output.put_line('err msg 1 is : ' || out_msg_data);

    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

        out_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
        dbms_output.put_line(' msg count 2 is : ' || out_msg_count);

    for k in 1 .. out_msg_count loop

        out_msg_data := oe_msg_pub.get( p_msg_index => k,
p_encoded => 'F'
    );
        --  Get message count and data
        dbms_output.put_line('err msg ' || k ||'is:  ' || out_msg_data);
            null;

    end loop;

    WHEN OTHERS THEN

        out_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
        --Get message count and data
        dbms_output.put_line('err msg 3 is : ' || out_msg_data);

    for k in 1 .. out_msg_count loop
    out_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

);

--Get message count and data

dbms_output.put_line('err msg ' || k ||'is:  ' || out_msg_data);
null;
end loop;
```

```
end;
/
--commit;
--exit;
```

Update an agreement record and update an agreement price list header

This example also creates three price list lines on the agreement price list.

```
SET SERVEROUTPUT ON SIZE 200000

declare

out_return_status varchar2(1) := NULL;
out_msg_count number := 0;
out_msg_data varchar2(2000);
in_Agreement_rec          OE_Pricing_Cont_PUB.Agreement_Rec_Type;
in_Agreement_val_rec OE_Pricing_Cont_PUB.Agreement_Val_Rec_Type;
in_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
in_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
in_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
in_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
in_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
in_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;
out_Agreement_rec             OE_Pricing_Cont_PUB.Agreement_Rec_Type;
out_Agreement_val_rec         OE_Pricing_Cont_PUB.Agreement_Val_Rec_Type;
out_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
out_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
out_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
out_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
out_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
out_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;

    K number := 1;
    j number := 1;

begin

dbms_output.put_line('Creating an Agreement record');

--Updating an Agreement record

in_Agreement_rec.agreement_id :=19034;
in_Agreement_rec.name :='Test SEAGATE 2001';
in_Agreement_rec.creation_date :=sysdate;
```

```
in_Agreement_rec.created_by := 1001;
in_Agreement_rec.last_update_date := sysdate;
in_Agreement_rec.last_updated_by := 9001;
in_Agreement_rec.agreement_type_code := 'STANDARD';
in_Agreement_rec.agreement_num := '22';
in_Agreement_rec.revision := '1';
in_Agreement_rec.revision_date := sysdate;
in_Agreement_rec.term_id := 1000;
in_Agreement_rec.OVERRIDE_IRULE_FLAG := 'N';
in_Agreement_rec.OVERRIDE_ARULE_FLAG := 'Y';
in_Agreement_rec.operation    := QP_GLOBALS.G_OPR_UPDATE;
in_Agreement_rec.price_list_id := 107811;

    /* set the list_header_id to g_miss_num */
    in_price_list_rec.list_header_id := 107811;
    in_price_list_rec.name := 'SEAGATE P LIST 2002';
    in_price_list_rec.list_type_code := 'AGR';
    in_price_list_rec.description := 'Sample TESTING AGREEMENT';
    in_price_list_rec.currency_code := 'USD';
    in_price_list_rec.operation    := QP_GLOBALS.G_OPR_UPDATE;

FOR K IN 1..3 LOOP
in_price_list_line_tbl(K).list_line_id := FND_API.G_MISS_NUM;
in_price_list_line_tbl(K).list_line_type_code := 'PLL';
in_price_list_line_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;
in_price_list_line_tbl(K).operand := 101;
in_price_list_line_tbl(K).arithmetic_operator := 'UNIT_PRICE';
END LOOP;

/*
product_attr_value stores inventory item id -
product_attribute for Item Number is Pricing_Attribute1
product_attribute_context is ITEM .
Each line can have one or more pricing attributes. we use
PRICE_LIST_LINE_INDEX to link the child(pricing attributes )
to the parent(line).
When you have pricing attributes like color, length, width etc,
populate the fields pricing_attribute_context, pricing_attribute
, pricing_attr_value_from, pricing_attr_value_to and
comparison_operator_code ( '=' or 'between') and repeat the
product_attr_value and its attribute and context for each record.
*/

J := 1;
```

```
in_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
in_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62061';
in_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
in_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
in_pricing_attr_tbl(J).ATTRIBUTE_GROUPING_NO := 1;
in_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 1;
in_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

J := J + 1;

in_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
in_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62081';
in_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
in_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
in_pricing_attr_tbl(J).ATTRIBUTE_GROUPING_NO := 1;
in_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 2;
in_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

J := J + 1;
in_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
in_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
in_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62083';
in_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
in_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
in_pricing_attr_tbl(J).ATTRIBUTE_GROUPING_NO := 1;
in_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 3;
in_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

oe_debug_pub.add('Calling the process Agreements API');
```

OE_Pricing_Cont_PUB.Process_Agreement

```
(   p_api_version_number=> 1.0
,   p_init_msg_list=> FND_API.G_FALSE
,   p_return_values=> FND_API.G_FALSE
,   p_commit=> FND_API.G_FALSE
,   x_return_status=> out_return_status
```

```
,   x_msg_count=> out_msg_count
,   x_msg_data=> out_msg_data
,   p_Agreement_rec=> in_Agreement_rec
,   p_Price_LHeader_rec=> in_price_list_rec
,   p_Price_LLine_tbl=> in_price_list_line_tbl
,   p_Pricing_Attr_tbl=> in_pricing_attr_tbl
,   x_Agreement_rec=> out_Agreement_rec
,   x_Agreement_val_rec=> out_Agreement_val_rec
,   x_Price_LHeader_rec=> out_price_list_rec
,   x_Price_LHeader_val_rec=> out_price_list_val_rec
,   x_Price_LLine_tbl=> out_price_list_line_tbl
,   x_Price_LLine_val_tbl=> out_price_list_line_val_tbl
,   x_Pricing_Attr_tbl=> out_pricing_attr_tbl
,   x_Pricing_Attr_val_tbl=> out_pricing_attr_val_tbl
);

IF out_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

oe_debug_pub.add('after process agreement ');

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

        out_return_status := FND_API.G_RET_STS_ERROR;

            --  Get message count and data

        dbms_output.put_line('err msg 1 is : ' || out_msg_data);

    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

        out_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
        dbms_output.put_line(' msg count 2 is : ' || out_msg_count);

    for k in 1 .. out_msg_count loop

out_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'
```

```
    );

        --  Get message count and data
        dbms_output.put_line('err msg ' || k ||'is:  ' || out_msg_data);

            null;

    end loop;

    WHEN OTHERS THEN

        out_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
--Get message count and data
        dbms_output.put_line('err msg 3 is : ' || out_msg_data);

for k in 1 .. out_msg_count loop
out_msg_data := oe_msg_pub.get( p_msg_index => k,

    p_encoded => 'F'

    );

--Get message count and data

dbms_output.put_line('err msg ' || k ||'is: ' || out_msg_data);
null;
end loop;
end;

/

--commit;

--exit;
```

Delete an agreement

You only need to specify the Agreement_id. If the agreement has a price list that is not used by any order or any other agreement, then the price list will also be deleted.

```
SET SERVEROUTPUT ON SIZE 200000

/* This scripts DELETES an agreement */
```

```
declare
    out_return_status varchar2(1) := NULL;
    out_msg_count number := 0;
    out_msg_data varchar2(2000);
    in_Agreement_rec          OE_Pricing_Cont_PUB.Agreement_Rec_Type;
    in_Agreement_val_rec OE_Pricing_Cont_PUB.Agreement_Val_Rec_Type;
    in_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
    in_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
    in_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
    in_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
    in_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
    in_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;
     out_Agreement_rec             OE_Pricing_Cont_PUB.Agreement_Rec_Type;
    out_Agreement_val_rec         OE_Pricing_Cont_PUB.Agreement_Val_Rec_Type;
    out_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
    out_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
    out_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
    out_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
    out_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
    out_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;

K number := 1;

j number := 1;

begin

dbms_output.put_line('DELETING an Agreement record');

-- DELETING an Agreement record

in_Agreement_rec.agreement_id :=19121;
in_Agreement_rec.operation                  := QP_GLOBALS.G_OPR_DELETE;

oe_debug_pub.add('Calling the process Agreements API');
```

OE_Pricing_Cont_PUB.Process_Agreement

```
(   p_api_version_number=> 1.0
,   p_init_msg_list=> FND_API.G_FALSE
,   p_return_values=> FND_API.G_FALSE
,   p_commit=> FND_API.G_FALSE
,   x_return_status=> out_return_status
,   x_msg_count=> out_msg_count
```

```
,   x_msg_data=> out_msg_data
,   p_Agreement_rec=> in_Agreement_rec
,   p_Price_LHeader_rec=> in_price_list_rec
,   p_Price_LLine_tbl=> in_price_list_line_tbl
,   p_Pricing_Attr_tbl=> in_pricing_attr_tbl
,   x_Agreement_rec=> out_Agreement_rec
,   x_Agreement_val_rec=> out_Agreement_val_rec
,   x_Price_LHeader_rec=> out_price_list_rec
,   x_Price_LHeader_val_rec=> out_price_list_val_rec
,   x_Price_LLine_tbl=> out_price_list_line_tbl
,   x_Price_LLine_val_tbl=> out_price_list_line_val_tbl
,   x_Pricing_Attr_tbl=> out_pricing_attr_tbl
,   x_Pricing_Attr_val_tblout_pricing_attr_val_tbl

);

    IF out_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

oe_debug_pub.add('after process agreement ');

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

        out_return_status := FND_API.G_RET_STS_ERROR;

        Get message count and data

        dbms_output.put_line('err msg 1 is : ' || out_msg_data);

    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

        out_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
        dbms_output.put_line(' msg count 2 is : ' || out_msg_count);

    for k in 1 .. out_msg_count loop

out_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'
);
```

```
        --Get message count and data

        dbms_output.put_line('err msg ' || k ||'is:  ' || out_msg_data);

null;

end loop;

    WHEN OTHERS THEN

        out_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

        --Get message count and data
        dbms_output.put_line('err msg 3 is : ' || out_msg_data);

for k in 1 .. out_msg_count loop
out_msg_data := oe_msg_pub.get( p_msg_index => k,
    p_encoded => 'F'

);

--  Get message count and data
dbms_output.put_line('err msg ' || k ||'is:  ' || out_msg_data);
null;
end loop;

end;
/
--commit;
--exit;
```

Attribute Mapping Application Program Interface

This section explains how to use the Attribute Mapping APIs and how it functions in Oracle Advanced Pricing. Currently, in the new model, there are three Attribute Mapping packages. They are :

- QP_ATTR_MAP_PUB
- QP_ATTRIBUTES_PUB
- QP_ATTR_MAPPING_PUB

Functional Overview

The Public package QP_ATTR_MAP_PUB is a Business Object API, based on the following tables. QP_LOOKUPS(Type : QP_PTE_TYPE), QP_PTE_SOURCE_SYSTEMS, QP_PTE_REQUEST_TYPES_B/TL, QP_PTE_SEGMENTS and QP_ATTRIBUTE_SOURCING. The QP_ATTR_MAP_PUB model is as shown below :

The Object Name is Attr_Map and the relationship of the tables is shown below.

The package QP_ATTR_MAP_PUB contains the following APIs and record type definitions:

- The API processes one record with each call. The calling application must populate the global records that referenced in the attribute mapping rules. The output of the API is a PL/SQL table with each record having the context name, attribute name, and attribute value.
- Pte_Val_Rec_Type
- Pte_Val_Rec_Type
- Rqt_Rec_Type
- Rqt_Tbl_Type
- Rqt_Val_Rec_Type
- Ssc_Rec_Type
- Ssc_Tbl_Type
- Ssc_Val_Rec_Type
- Psg_Rec_Type
- Psg_Val_Rec_Type
- Sou_Rec_Type

- Sou_Val_Rec_Type
- PROCEDURE Process_Attr_Mapping
- PROCEDURE Lock_Attr_Mapping
- PROCEDURE Get_Attr_Mapping

Setting Up and Parameter Descriptions

The following chart describes all parameters used by the public Attribute Mapping API QP_ATTR_MAP_PUB. All of the inbound and outbound parameters are listed. Additional information on these parameters may follow.

Procedure PROCESS_ATTR_MAPPING

The following table shows the parameters for this structure. This API will add, update or delete a Source System, Request type, PTE-Attribute link, Attribute Mapping rules depending on the input parameter.

Table 3–21 PROCESS_ATTR_MAPPING Parameters

Parameter	Usage	Type	Req	Drv
p_api_version_number	In	Number	Yes	No
p_init_msg_list	In	Varchar2	No	No
p_return_values	In	Varchar2	No	No
p_commit	In	Varchar2	No	No
x_return_status	Out	Number	No	No
x_msg_count	Out	Varchar2	No	No
x_msg_data	Out	Pte_Rec_Type	No	No
p_PTE_rec	In	Pte_Val_Rec_Type	No	No
p_PTE_val_rec	In	Pte_Val_Rec_Type	No	No
p_RQT_tbl	In	Rqt_Tbl_Type	No	No
p_RQT_val_tbl	In	Rqt_Val_Tbl_Type	No	No
p_SSC_tbl	In	Ssc_Tbl_Type	No	No
p_SSC_val_tbl	In	Ssc_Val_Tbl_Type	No	No
p_PSG_tbl	In	Psg_Tbl_Type	No	No

Table 3–21 PROCESS_ATTR_MAPPING Parameters

Parameter	Usage	Type	Req	Drv
p_PSG_val_tbl	In	Psg_Val_Tbl_Type	No	No
p_SOU_tbl	In	Sou_Tbl_Type	No	No
p_SOU_val_tbl	In	Sou_Val_Tbl_Type	No	No
x_PTE_rec	Out	Pte_Rec_Type	No	No
x_PTE_val_rec	Out	Pte_Val_Rec_Type	No	No
x_RQT_tbl	Out	Rqt_Tbl_Type	No	No
x_RQT_val_tbl	Out	Rqt_Val_Tbl_Type	No	No
x_SSC_tbl	Out	Ssc_Tbl_Type	No	No
x_SSC_val_tbl	Out	Ssc_Val_Tbl_Type	No	No
x_PSG_tbl	Out	Psg_Tbl_Type	No	No
x_PSG_val_tbl	Out	Psg_Val_Tbl_Type	No	No
x_SOU_tbl	Out	Sou_Tbl_Type	No	No
x_SOU_val_tbl	Out	Sou_Val_Tbl_Type	No	No

p_api_version_number

This the version number of the API.

P_PTE_REC

The following table shows the parameters for this structure.

Table 3–22 P_PTE_REC Parameters

Parameter	Usage	Type	Req	Drv
Description	Null	Varchar2	No	No
Enabled_flag	Null	Varchar2	No	No
End_date_active	Null	Date	No	No
Lookuop_code	Null	Varchar2	No	No
Lookup_type	Null	Varchar2	No	No
meaning	Null	Varchar2	No	No
Start_date_active	Null	Date	No	No

P_PTE_VAL_REC

The following table shows the parameters for this structure.

Table 3–23 P_PTE_VAL_REC Parameters

Parameter	Usage	Type	Req	Drv
enabled	Null	Varchar2	No	No
lookup	Null	Varchar2	No	No

The following table shows the parameters for the tables and their structures.

Table 3–24 Tables and Structures

Table Name	Usage	Type
P_RQT_TBL	Null	TABLE OF Rqt_Rec_Type
P_RQT_VAL_TBL	Null	TABLE OF Pte_Val_Rec_Type
P_SSC_TBL	Null	TABLE OF Ssc_Rec_Type
P_SSC_VAL_TBL	Null	TABLE OF Ssc_Rec_Type
P_PSG_TBL	Null	TABLE OF Psg_Rec_Type
P_PSG_VAL_TBL	Null	TABLE OF Psg_Val_Rec_Type
P_SOU_TBL	Null	TABLE OF Psg_Sou_Type
P_SOU_VAL_TBL	Null	TABLE OF Psg_Sou_Val_Type

X_PTE_REC_TYPE

The following table shows the parameters for this structure.

Table 3–25 X_PTE_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Description	Null	Varchar2	No	No
Enabled_flag	Null	Varchar2	No	No
End_date_active	Null	Date	No	No
Lookuop_code	Null	Varchar2	No	No
Lookup_type	Null	Varchar2	No	No

Table 3–25 X_PTE_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
meaning	Null	Varchar2	No	No
Start_date_active	Null	Date	No	No

X_PTE_VAL_REC

The following table shows the parameters for this structure.

Table 3–26 X_PTE_VAL_REC Parameters

Parameter	Usage	Type	Req	Drv
enabled	Null	Varchar2	No	No
lookup	Null	Varchar2	No	No

The following table shows the parameters for the following table structures (no parameters are used for the following):

Table 3–27 Table Parameters

Table Name	Usage	Type	Req	Drv
X_RQT_TBL	Null	TABLE OF Rqt_Rec_Type	No	No
X_RQT_VAL_TBL	Null	TABLE OF Pte_Val_Rec_Type	No	No
P_SSC_TBL	Null	TABLE OF Ssc_Rec_Type	No	No
P_SSC_VAL_TBL	Null	TABLE OF Ssc_Rec_Type	No	No
X_PSG_TBL	Null	TABLE OF Psg_Rec_Type	No	No
X_PSG_VAL_TBL	Null	TABLE OF Psg_Val_Rec_Type	No	No
X_SOU_TBL	Null	TABLE OF Psg_Sou_Type	No	No
X_SOU_VAL_TBL	Null	TABLE OF Psg_Sou_Val_Type	No	No

Procedure LOCK_ATTR_MAPPING

The following table shows the parameters for this structure. User can use this API to lock PTE-Attribute link and all its Attribute Mapping rules from getting updated by a different user concurrently.

Table 3–28 LOCK_ATTR_MAPPING Parameters

Parameter	Usage	Type	Req	Drv
p_api_version_number	In	Number	Yes	No
p_init_msg_list	In	Varchar2	No	No
p_return_values	In	Varchar2	No	No
x_return_status	Out	Number	No	No
x_msg_count	Out	Varchar2	No	No
x_msg_data	Out	Pte_Rec_Type	No	No
p_PTE_rec	In	Pte_Val_Rec_Type	No	No
p_PTE_val_rec	In	Pte_Val_Rec_Type	No	No
p_RQT_tbl	In	Rqt_Tbl_Type	No	No
p_RQT_val_tbl	In	Rqt_Val_Tbl_Type	No	No
p_SSC_tbl	In	Ssc_Tbl_Type	No	No
p_SSC_val_tbl	In	Ssc_Val_Tbl_Type	No	No
p_PSG_tbl	In	Psg_Tbl_Type	No	No
p_PSG_val_tbl	In	Psg_Val_Tbl_Type	No	No
p_SOU_tbl	In	Sou_Tbl_Type	No	No
p_SOU_val_tbl	In	Sou_Val_Tbl_Type	No	No
x_PTE_rec	Out	Pte_Rec_Type	No	No
x_PTE_val_rec	Out	Pte_Val_Rec_Type	No	No
x_RQT_tbl	Out	Rqt_Tbl_Type	No	No
x_RQT_val_tbl	Out	Rqt_Val_Tbl_Type	No	No
x_SSC_tbl	Out	Ssc_Tbl_Type	No	No
x_SSC_val_tbl	Out	Ssc_Val_Tbl_Type	No	No
x_PSG_tbl	Out	Psg_Tbl_Type	No	No
x_PSG_val_tbl	Out	Psg_Val_Tbl_Type	No	No
x_SOU_tbl	Out	Sou_Tbl_Type	No	No
x_SOU_val_tbl	Out	Sou_Val_Tbl_Type	No	No

p_api_version_number

This the version number of the API.

P_PTE_REC_TYPE

The following table shows the parameters for this structure.

Table 3–29 P_PTE_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Description	Null	Varchar2	No	No
Enabled_flag	Null	Varchar2	No	No
End_date_active	Null	Date	No	No
Lookuop_code	Null	Varchar2	No	No
Lookup_type	Null	Varchar2	No	No
meaning	Null	Varchar2	No	No
Start_date_active	Null	Date	No	No

P_PTE_VAL_REC

The following table shows the parameters for this structure.

Table 3–30 P_PTE_VAL_REC Parameters

Parameter	Usage	Type	Req	Drv
enabled	Null	Varchar2	No	No
lookup	Null	Varchar2	No	No

The following table shows the parameters for the following table structures:

Table 3–31 Table Structure Parameters

Table Name	Usage	Type
P_RQT_TBL	Null	TABLE OF Rqt_Rec_Type
P_RQT_VAL_TBL	Null	TABLE OF Pte_Val_Rec_Type
P_SSC_TBL	Null	TABLE OF Ssc_Rec_Type
P_SSC_VAL_TBL	Null	TABLE OF Ssc_Rec_Type

Table 3–31 Table Structure Parameters

Table Name	Usage	Type
P_PSG_TBL	Null	TABLE OF Psg_Rec_Type
P_PSG_VAL_TBL	Null	TABLE OF Psg_Val_Rec_Type
P_SOU_TBL	Null	TABLE OF Psg_Sou_Type
P_SOU_VAL_TBL	Null	TABLE OF Psg_Sou_Val_Type

X_PTE_REC_TYPE

The following table shows the parameters for this structure.

Table 3–32 X_PTE_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Description	Null	Varchar2	No	No
Enabled_flag	Null	Varchar2	No	No
End_date_active	Null	Date	No	No
Lookuop_code	Null	Varchar2	No	No
Lookup_type	Null	Varchar2	No	No
meaning	Null	Varchar2	No	No
Start_date_active	Null	Date	No	No

X_PTE_VAL_REC

The following table shows the parameters for this structure.

Table 3–33 X_PTE_VAL_REC Parameters

Parameter	Usage	Type	Req	Drv
enabled	Null	Varchar2	No	No
lookup	Null	Varchar2	No	No

The following table shows the parameters for the following table structures:

Table 3–34 Table Structure Parameters

Table Name	Usage	Type
X_RQT_TBL	Null	TABLE OF Rqt_Rec_Type
X_RQT_VAL_TBL	Null	TABLE OF Pte_Val_Rec_Type
P_SSC_TBL	Null	TABLE OF Ssc_Rec_Type
P_SSC_VAL_TBL	Null	TABLE OF Psg_Rec_Type
X_PSG_TBL	Null	TABLE OF Psg_Rec_Type
X_PSG_VAL_TBL	Null	TABLE OF Psg_Val_Rec_Type
X_SOU_TBL	Null	TABLE OF Psg_Sou_Type
X_SOU_VAL_TBL	Null	TABLE OF Psg_Sou_Val_Type

Procedure GET_ATTR_MAPPING

The following table shows the parameters for this structure. This API will fetch the records for an Source System, Request Type, PTE_Attribute link, Attribute Mapping rules given the input parameter.

Table 3–35 GET_ATTR_MAPPING Parameters

Parameter	Usage	Type	Req	Drv
p_api_version_number	In	Number	Yes	No
p_init_msg_list	In	Varchar2	No	No
p_return_values	In	Varchar2	No	No
x_return_status	Out	Number	No	No
x_msg_count	Out	Varchar2	No	No
x_msg_data	Out	Pte_Rec_Type	No	No
p_lookup_code	In	Varchar2	No	No
p_lookup	In	Varchar2	No	No
x_PTE_rec	Out	Pte_Rec_Type	No	No
x_PTE_val_rec	Out	Pte_Val_Rec_Type	No	No
x_RQT_tbl	Out	Rqt_Tbl_Type	No	No
x_RQT_val_tbl	Out	Rqt_Val_Tbl_Type	No	No

Table 3–35 GET_ATTR_MAPPING Parameters

Parameter	Usage	Type	Req	Drv
x_SSC_tbl	Out	Ssc_Tbl_Type	No	No
x_SSC_val_tbl	Out	Ssc_Val_Tbl_Type	No	No
x_PSG_tbl	Out	Psg_Tbl_Type	No	No
x_PSG_val_tbl	Out	Psg_Val_Tbl_Type	No	No
x_SOU_tbl	Out	Sou_Tbl_Type	No	No
x_SOU_val_tbl	Out	Sou_Val_Tbl_Type	No	No

p_api_version_number

This the version number of the API.

p_lookup_code

This is the code for the Pricing Transaction Entity; for example, ORDFUL for Order Fulfillment, DEMAND for Demand Planning etc.

p_lookup

This is the type of the Pricing Lookups. For Pricing Transaction Entities, it is QP_PTE_TYPE.

X_PTE_REC_TYPE

The following table shows the parameters for this structure.

Table 3–36 X_PTE_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Description	Null	Varchar2	No	No
Enabled_flag	Null	Varchar2	No	No
End_date_active	Null	Date	No	No
Lookuop_code	Null	Varchar2	No	No
Lookup_type	Null	Varchar2	No	No
meaning	Null	Varchar2	No	No
Start_date_active	Null	Date	No	No

X_PTE_VAL_REC

The following table shows the parameters for this structure.

Table 3–37 X_PTE_VAL_REC Parameters

Parameter	Usage	Type	Req	Drv
enabled	Null	Varchar2	No	No
lookup	Null	Varchar2	No	No

The following table shows the parameters for the following table structures:

Table 3–38 Table Structure Parameters

Table Name	Usage	Type
X_RQT_TBL	Null	TABLE OF Rqt_Rec_Type
X_RQT_VAL_TBL	Null	TABLE OF Pte_Val_Rec_Type
P_SSC_TBL	Null	TABLE OF Ssc_Rec_Type
P_SSC_VAL_TBL	Null	TABLE OF Ssc_Rec_Type
X_PSG_TBL	Null	TABLE OF Psg_Rec_Type
X_PSG_VAL_TBL	Null	TABLE OF Psg_Val_Rec_Type
X_SOU_TBL	Null	TABLE OF Psg_Sou_Type
X_SOU_VAL_TBL	Null	TABLE OF Psg_Sou_Val_Type

Business Object for Modifier Setup Application Program Interface

This section explains how to use the Business Object for Modifier Setup API and how it functions in Oracle Advanced Pricing. The Business Object for Modifier Setup package consists of entities to set up modifiers.

Functional Overview

The package QP_Modifiers_PUB.Process Modifiers contains the following public record type and table of records entities:

- Process_Modifiers: QP_Modifiers_PUB.Process_Modifiers is a Public API. It takes two record types and six table types as input parameters. Use this API to insert, update and delete modifiers. Use it to set up a modifier list header for a given p_MODIFIER_ LIST_rec record structure.

You can:

- Set up multiple modifier lines by giving multiple modifier definitions in the p_ MODIFIERS_tbl table structure.
- Attach multiple qualifiers either at the header level (modifier list) or at the line level (modifier) by giving multiple qualifiers in the p_QUALIFIERS_tbl table structure.
- Attach multiple pricing attributes to modifier lines by giving the pricing attributes in the p_PRICING_ATTR_tbl table structure.
- Modifier_List_Rec_Type: Corresponds to the columns in the modifier header tables QP_LIST_HEADERS_B and QP_LIST_HEADERS_TL.
- Modifier_List_Tbl_Type
- Modifier_List_Val_Rec_Type: Corresponds to the columns in the modifier header table QP_LIST_HEADERS_B.
- Modifier_List_Val_Tbl_Type
- Modifiers_Rec_Type: Corresponds to the columns in the modifier and related modifiers tables QP_LIST_LINES and QP_RLTD_MODIFIERS.
- Modifiers_Tbl_Type
- Modifiers_Val_Rec_Type: Corresponds to the columns in the modifier table QP_ LIST_ LINES.
- Modifiers_Val_Tbl_Type

- Qualifiers_Rec_Type: Corresponds to the columns in the qualifier table QP_ QUALIFIERS.
- Qualifiers_Tbl_Type
- Qualifiers_Val_Rec_Type: Corresponds to the columns in the qualifier table QP_ QUALIFIERS.
- Qualifiers_Val_Tbl_Type
- Pricing_Attr_Rec_Type: Corresponds to the columns in the pricing attributes table QP_ PRICING_ATTRIBUTES.
- Pricing_Attr_Tbl_Type
- Pricing_Attr_Val_Rec_Type: Corresponds to the columns in the pricing attributes table QP_PRICING_ATTRIBUTES.
- Pricing_Attr_Val_Tbl_Type

Setting Up and Parameter Descriptions

The following chart describes all parameters used by the public Business Object for Modifier Setup. All of the inbound and outbound parameters are listed. Additional information on these parameters may follow.

PROCESS_MODIFIERS

The following table shows the parameters for this structure.

Table 3–39 PROCESS_MODIFIERS Parameters

Parameter	Usage	Type	Req	Drv
p_api_version_number	In	Number	No	No
p_init_msg_list	In	Varchar2	No	No
p_return_values	In	Varchar2	No	No
p_commit	In	Varchar2	No	No
x_return_status	Out	Varchar2	No	No
x_msg_count	Out	Varchar2	No	No
x_msg_data	Out	Varchar2	No	No
p_MODIFIER_LIST_rec	In	Modifier_List_ Rec_Type	No	No
p_MODIFIER_LIST_val_ rec	In	Modifier_List_ Val_Rec_Type	No	No

Table 3–39 PROCESS_MODIFIERS Parameters

Parameter	Usage	Type	Req	Drv
p_MODIFIERS_tbl	In	Modifiers_Tbl_ Type	No	No
p_MODIFIERS_val_tbl	In	Modifiers_Val_ Tbl_Type	No	No
p_QUALIFIERS_tbl	In	Qualifiers_Tbl_ Type	No	No
p_QUALIFIERS_val_tbl	In	Qualifiers_Val_ Tbl_Type	No	No
p_PRICING_ATTR_tbl	In	Pricing_Attr_ Tbl_Type	No	No
p_PRICING_ATTR_val_tbl	In	Pricing_Attr_Val_ Tbl_Type	No	No
x_MODIFIER_LIST_rec	Out	Modifier_List_ Rec_Type	No	No
x_MODIFIER_LIST_val_ rec	Out	Modifier_List_ Val_Rec_Type	No	No
x_MODIFIERS_tbl	Out	Modifiers_Tbl_ Type	No	No
x_MODIFIERS_val_tbl	Out	Modifiers_Val_ Tbl_Type	No	No
x_QUALIFIERS_tbl	Out	Qualifiers_Tbl_ Type	No	No
x_QUALIFIERS_val_tbl	Out	Qualifiers_Val_ Tbl_Type	No	No
x_PRICING_ATTR_tbl	Out	Pricing_Attr_ Tbl_Type	No	No
x_PRICING_ATTR_val_tbl	Out	Pricing_Attr_Val_ Tbl_Type	No	No

p_init_sg_list
Default Value: FND_API.G_FALSE

p_return_values
Default Value: FND_API.G_FALSE

p_commit
Default Value: FND_API.G_FALSE

p_MODIFIER_LIST_rec
Default Value: G_MISS_MODIFIER_LIST_REC

p_MODIFIER_LIST_val_rec
Default Value: G_MISS_MODIFIER_LIST_VAL_REC

p_MODIFIERS_tbl
Default Value: G_MISS_MODIFIERS_TBL

p_MODIFIERS_val_tbl
Default Value: G_MISS_MODIFIERS_VAL_TBL

p_QUALIFIERS_tbl
Default Value: G_MISS_QUALIFIERS_TBL

p_QUALIFIERS_val_tbl
Default Value: G_MISS_QUALIFIERS_VAL_TBL

p_PRICING_ATTR_tbl
Default Value: G_MISS_PRICING_ATTR_TBL

p_PRICING_ATTR_val_tbl
Default Value: G_MISS_PRICING_ATTR_VAL_TBL

MODIFIER_LIST_REC_TYPE

The following table shows the parameters for this structure.

Table 3–40 MODIFIER_LIST_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No

Table 3–40 MODIFIER_LIST_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No
automatic_flag	Null	Varchar2	Yes	No
comments	Null	Varchar2	No	No
context	Null	Varchar2	No	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
currency_code	Null	Varchar2	Yes	No
discount_lines_flag	Null	Varchar2	No	No
end_date_active	Null	Date	Yes	No
freight_terms_code	Null	Varchar2	No	No
gsa_indicator	Null	Varchar2	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
list_header_id	Null	Number	No	No
list_type_code	Null	Varchar2	Yes	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No
prorate_flag	Null	Varchar2	No	No
request_id	Null	Number	No	No
rounding_factor	Null	Number	No	No
ship_method_code	Null	Varchar2	No	No
start_date_active	Null	Date	No	No

Table 3–40 MODIFIER_LIST_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
terms_id	Null	Number	No	No
source_system_code	Null	Varchar2	Yes	No
active_flag	Null	Varchar2	Yes	No
parent_list_header_id	Null	Number	No	No
start_date_active_first	Null	Date	No	No
end_date_active_first	Null	Date	No	No
active_date_first_type	Null	Varchar2	No	No
start_date_active_second	Null	Date	No	No
end_date_active_second	Null	Date	No	No
active_date_second_type	Null	Varchar2	No	No
ask_for_flag	Null	Varchar2	No	No
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
version_no	Null	Varchar2	Yes	No
operation	Null	Varchar2	Yes	No
name	Null	Varchar2	Yes	No
pte_code	Null	Varchar2	Yes	No
description	Null	Varchar2	Yes	No

attribute1-15
Default Value: FND_API.G_MISS_CHAR

automatic_flag
Default Value: FND_API.G_MISS_CHAR

comments
Default Value: FND_API.G_MISS_CHAR

context
Default Value: FND_API.G_MISS_CHAR

created_by
Default Value: FND_API.G_MISS_NUM

creation_date
Default Value: FND_API.G_MISS_DATE

currency_code
Default Value: FND_API.G_MISS_CHAR

discount_lines_flag
Default Value: FND_API.G_MISS_CHAR

end_date_active
Default Value: FND_API.G_MISS_DATE

freight_terms_code
Default Value: FND_API.G_MISS_CHAR

gsa_indicator
Default Value: FND_API.G_MISS_CHAR

last_updated_by
Default Value: FND_API.G_MISS_NUM

last_update_date
Default Value: FND_API.G_MISS_DATE

last_update_login
Default Value: FND_API.G_MISS_NUM

list_header_id
Default Value: FND_API.G_MISS_NUM

list_type_code
Default Value: FND_API.G_MISS_CHAR

program_application_id
Default Value: FND_API.G_MISS_NUM

program_id
Default Value: FND_API.G_MISS_NUM

program_update_date
Default Value: FND_API.G_MISS_DATE

prorate_flag
Default Value: FND_API.G_MISS_CHAR

request_id
Default Value: FND_API.G_MISS_NUM

rounding_factor
Default Value: FND_API.G_MISS_NUM

ship_method_code
Default Value: FND_API.G_MISS_CHAR

start_date_active
Default Value: FND_API.G_MISS_DATE

terms_id
Default Value: FND_API.G_MISS_NUM

source_system_code
Default Value: FND_API.G_MISS_CHAR

active_flag
Default Value: FND_API.G_MISS_CHAR

parent_list_header_id
Default Value: FND_API.G_MISS_NUM

start_date_active_first
Default Value: FND_API.G_MISS_DATE

end_date_active_first
Default Value: FND_API.G_MISS_DATE

active_date_first_type
Default Value: FND_API.G_MISS_CHAR

start_date_active_second
Default Value: FND_API.G_MISS_DATE

end_date_active_second
Default Value: FND_API.G_MISS_DATE

active_date_second_type
Default Value: FND_API.G_MISS_CHAR

ask_for_flag
Default Value: FND_API.G_MISS_CHAR

return_status
Default Value: FND_API.G_MISS_CHAR

db_flag
Default Value: FND_API.G_MISS_CHAR

operation
Default Value: FND_API.G_MISS_CHAR

name
Default Value: FND_API.G_MISS_CHAR

description
Default Value: FND_API.G_MISS_CHAR

MODIFIER_LIST_TBL_TYPE The following table shows the parameters for this structure.

Table 3–41 MODIFIER_LIST_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Modifier_List_Rec_Type	Null	Record	No	No

MODIFIER_LIST_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–42 MODIFIER_LIST_VAL_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
automatic	Null	Varchar2	No	No
currency	Null	Varchar2	No	No
discount_lines	Null	Varchar2	No	No
freight_terms	Null	Varchar2	No	No
list_header	Null	Varchar2	No	No
list_type	Null	Varchar2	No	No
prorate	Null	Varchar2	No	No
ship_method	Null	Varchar2	No	No
terms	Null	Varchar2	No	No

automatic
Default Value: FND_API.G_MISS_CHAR

currency
Default Value: FND_API.G_MISS_CHAR

discount_lines
Default Value: FND_API.G_MISS_CHAR

freight_terms
Default Value: FND_API.G_MISS_CHAR

list_header
Default Value: FND_API.G_MISS_CHAR

list_type
Default Value: FND_API.G_MISS_CHAR

prorate
Default Value: FND_API.G_MISS_CHAR

ship_method
Default Value: FND_API.G_MISS_CHAR

terms
Default Value: FND_API.G_MISS_CHAR

MODIFIER_LIST_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–43 MODIFIER_LIST_VAL_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Modifier_List_Val_Rec_ Type	Null	Record	No	No

MODIFIERS_REC_TYPE

The following table shows the parameters for this structure.

Table 3–44 MODIFIERS_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
arithmetic_operator	Null	Varchar2	No	No
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No

Table 3–44 MODIFIERS_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No
automatic_flag	Null	Varchar2	Yes	No
comments	Null	Varchar2	No	No
context	Null	Varchar2	No	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
effective_period_uom	Null	Varchar2	No	No
end_date_active	Null	Date	Yes	No
estim_accrual_rate	Null	Number	No	No
generate_using_formula_id	Null	Number	No	No
inventory_item_id	Null	Number	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
list_header_id	Null	Number	No	No
list_line_id	Null	Number	No	No

Table 3–44 MODIFIERS_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
list_line_type_code	Null	Varchar2	Yes	No
list_price	Null	Number	No	No
modifier_level_code	Null	Varchar2	Yes	No
number_effective_periods	Null	Number	No	No
operand	Null	Number	No	No
organization_id	Null	Number	No	No
override_flag	Null	Varchar2	No	No
percent_price	Null	Number	No	No
price_break_type_code	Null	Varchar2	Yes	No
price_by_formula_id	Null	Number	No	No
primary_uom_flag	Null	Varchar2	No	No
print_on_invoice_flag	Null	Varchar2	No	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No
rebate_trxn_type_code	Null	Varchar2	No	No
related_item_id	Null	Number	No	No
relationship_type_id	Null	Number	No	No
reprice_flag	Null	Varchar2	No	No
request_id	Null	Number	No	No
revision	Null	Varchar2	No	No
revision_date	Null	Date	No	No
revision_reason_code	Null	Varchar2	No	No
start_date_active	Null	Date	Yes	No
substitution_attribute	Null	Varchar2	No	No
substitution_context	Null	Varchar2	No	No
substitution_value	Null	Varchar2	No	No

Table 3–44 MODIFIERS_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
accrual_flag	Null	Varchar2	Yes	No
pricing_group_sequence	Null	Number	Yes	No
incompatibility_grp_code	Null	Varchar2	No	No
list_line_no	Null	Varchar2	No	No
from_rltd_modifier_id	Null	Number	No	No
to_rltd_modifier_id	Null	Number	No	No
rltd_modifier_grp_no	Null	Number	No	No
rltd_modifier_grp_type	Null	Varchar2	No	No
pricing_phase_id	Null	Number	Yes	No
product_precedence	Null	Number	Yes	No
expiration_period_start_ date	Null	Date	No	No
number_expiration_periods	Null	Number	No	No
expiration_period_uom	Null	Varchar2	No	No
expiration_date	Null	Date	No	No
estim_gl_value	Null	Number	No	No
benefit_price_list_line_id	Null	Number	No	No
benefit_limit	Null	Number	No	No
charge_type_code	Null	Varchar2	No	No
charge_subtype_code	Null	Varchar2	No	No
benefit_qty	Null	Number	No	No
benefit_uom_code	Null	Varchar2	No	No
accrual_conversion_rate	Null	Number	No	No
proration_type_code	Null	Varchar2	No	No
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	Yes	No

arithmetic_operator
Default Value: FND_API.G_MISS_CHAR

attribute1-15
Default Value: FND_API.G_MISS_CHAR

automatic_flag
Default Value: FND_API.G_MISS_CHAR

comments
Default Value: FND_API.G_MISS_CHAR

context
Default Value: FND_API.G_MISS_CHAR

created_by
Default Value: FND_API.G_MISS_NUM

creation_date
Default Value: FND_API.G_MISS_DATE

effective_period_uom
Default Value: FND_API.G_MISS_CHAR

end_date_active
Default Value: FND_API.G_MISS_DATE

estim_accrual_rate
Default Value: FND_API.G_MISS_NUM

generate_using_formula_id
Default Value: FND_API.G_MISS_NUM

inventory_item_id
Default Value: FND_API.G_MISS_NUM

last_updated_by
Default Value: FND_API.G_MISS_NUM

last_update_date
Default Value: FND_API.G_MISS_DATE

last_update_login
Default Value: FND_API.G_MISS_NUM

list_header_id
Default Value: FND_API.G_MISS_NUM

list_line_id
Default Value: FND_API.G_MISS_NUM

list_line_type_code
Default Value: FND_API.G_MISS_CHAR

list_price
Default Value: FND_API.G_MISS_NUM

modifier_level_code
Default Value: FND_API.G_MISS_CHAR

number_effective_periods
Default Value: FND_API.G_MISS_NUM

operand
Default Value: FND_API.G_MISS_NUM

organization_id
Default Value: FND_API.G_MISS_NUM

override_flag
Default Value: FND_API.G_MISS_CHAR

percent_price
Default Value: FND_API.G_MISS_NUM

price_break_type_code
Default Value: FND_API.G_MISS_CHAR

price_by_formula_id
Default Value: FND_API.G_MISS_NUM

primary_uom_flag
Default Value: FND_API.G_MISS_CHAR

print_on_invoice_flag
Default Value: FND_API.G_MISS_CHAR

program_application_id
Default Value: FND_API.G_MISS_NUM

program_id
Default Value: FND_API.G_MISS_NUM

program_update_date
Default Value: FND_API.G_MISS_DATE

rebate_trxn_type_code
Default Value: FND_API.G_MISS_CHAR

related_item_id
Default Value: FND_API.G_MISS_NUM

relationship_type_id
Default Value: FND_API.G_MISS_NUM

reprice_flag
Default Value: FND_API.G_MISS_CHAR

request_id
Default Value: FND_API.G_MISS_NUM

revision
Default Value: FND_API.G_MISS_CHAR

revision_date
Default Value: FND_API.G_MISS_DATE

revision_reason_code
Default Value: FND_API.G_MISS_CHAR

start_date_active
Default Value: FND_API.G_MISS_DATE

substitution_attribute
Default Value: FND_API.G_MISS_CHAR

substitution_context
Default Value: FND_API.G_MISS_CHAR

substitution_value
Default Value: FND_API.G_MISS_CHAR

accrual_flag
Default Value: FND_API.G_MISS_CHAR

pricing_group_sequence
Default Value: FND_API.G_MISS_NUM

incompatibility_grp_code
Default Value: FND_API.G_MISS_CHAR

list_line_no
Default Value: FND_API.G_MISS_CHAR

from_rltd_modifier_id
Default Value: FND_API.G_MISS_NUM

to_rltd_modifier_id
Default Value: FND_API.G_MISS_NUM

rltd_modifier_grp_no
Default Value: FND_API.G_MISS_NUM

rltd_modifier_grp_type
Default Value: FND_API.G_MISS_CHAR

pricing_phase_id
Default Value: FND_API.G_MISS_NUM

product_precedence
Default Value: FND_API.G_MISS_NUM

expiration_period_start_date
Default Value: FND_API.G_MISS_DATE

number_expiration_periods
Default Value: FND_API.G_MISS_NUM

expiration_period_uom
Default Value: FND_API.G_MISS_CHAR

expiration_date
Default Value: FND_API.G_MISS_DATE

estim_gl_value
Default Value: FND_API.G_MISS_NUM

benefit_price_list_line_id
Default Value: FND_API.G_MISS_NUM

benefit_limit
Default Value: FND_API.G_MISS_NUM

charge_type_code
Default Value: FND_API.G_MISS_CHAR

charge_subtype_code
Default Value: FND_API.G_MISS_CHAR

benefit_qty
Default Value: FND_API.G_MISS_NUM

benefit_uom_code
Default Value: FND_API.G_MISS_CHAR

accrual_conversion_rate
Default Value: FND_API.G_MISS_NUM

proration_type_code
Default Value: FND_API.G_MISS_CHAR

return_status
Default Value: FND_API.G_MISS_CHAR

db_flag
Default Value: FND_API.G_MISS_CHAR

operation
Default Value: FND_API.G_MISS_CHAR

MODIFIERS_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–45 MODIFIERS_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Modifiers_Rec_Type	Null	Record	No	No

MODIFIERS_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–46 MODIFIERS_VAL_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
accrual_type	Null	Varchar2	No	No
accrual_uom	Null	Varchar2	No	No
automatic	Null	Varchar2	No	No
generate_using_formula	Null	Varchar2	No	No
gl_class	Null	Varchar2	No	No
inventory_item	Null	Varchar2	No	No
list_header	Null	Varchar2	No	No
list_line	Null	Varchar2	No	No
list_line_type	Null	Varchar2	No	No
list_price_uom	Null	Varchar2	No	No
modifier_level	Null	Varchar2	No	No
organization	Null	Varchar2	No	No
override	Null	Varchar2	No	No
price_break_type	Null	Varchar2	No	No
price_by_formula	Null	Varchar2	No	No
primary_uom	Null	Varchar2	No	No
print_on_invoice	Null	Varchar2	No	No
rebate_subtype	Null	Varchar2	No	No
rebate_transaction_type	Null	Varchar2	No	No
related_item	Null	Varchar2	No	No
relationship_type	Null	Varchar2	No	No
reprice	Null	Varchar2	No	No
revision_reason	Null	Varchar2	No	No

accrual_type
Default Value: FND_API.G_MISS_CHAR

accrual_uom
Default Value: FND_API.G_MISS_CHAR

automatic
Default Value: FND_API.G_MISS_CHAR

generate_using_formula
Default Value: FND_API.G_MISS_CHAR

gl_class
Default Value: FND_API.G_MISS_CHAR

inventory_item
Default Value: FND_API.G_MISS_CHAR

list_header
Default Value: FND_API.G_MISS_CHAR

list_line
Default Value: FND_API.G_MISS_CHAR

list_line_type
Default Value: FND_API.G_MISS_CHAR

list_price_uom
Default Value: FND_API.G_MISS_CHAR

modifier_level
Default Value: FND_API.G_MISS_CHAR

organization
Default Value: FND_API.G_MISS_CHAR

override
Default Value: FND_API.G_MISS_CHAR

price_break_type
Default Value: FND_API.G_MISS_CHAR

price_by_formula
Default Value: FND_API.G_MISS_CHAR

primary_uom
Default Value: FND_API.G_MISS_CHAR

print_on_invoice
Default Value: FND_API.G_MISS_CHAR

rebate_subtype
Default Value: FND_API.G_MISS_CHAR

rebate_transaction_type
Default Value: FND_API.G_MISS_CHAR

related_item
Default Value: FND_API.G_MISS_CHAR

relationship_type
Default Value: FND_API.G_MISS_CHAR

reprice
Default Value: FND_API.G_MISS_CHAR

revision_reason
Default Value: FND_API.G_MISS_CHAR

MODIFIERS_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–47 MODIFIERS_VAL_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Modifiers_Val_Rec_Type	Null	Record	No	No

QUALIFIERS_REC_TYPE

The following table shows the parameters for this structure.

Table 3–48 QUALIFIERS_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No
comparison_operator_code	Null	Varchar2	Yes	No
context	Null	Varchar2	No	No
created_by	Null	Number	No	No
created_from_rule_id	Null	Number	No	No
creation_date	Null	Date	No	No
end_date_active	Null	Date	No	No

Table 3–48 QUALIFIERS_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
excluder_flag	Null	Varchar2	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
list_header_id	Null	Number	No	No
list_line_id	Null	Number	No	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No
qualifier_attribute	Null	Varchar2	Yes	No
qualifier_attr_value	Null	Varchar2	Yes	No
qualifier_context	Null	Varchar2	Yes	No
qualifier_grouping_no	Null	Number	Yes	No
qualifier_precedence	Null	Number	Yes	No
qualifier_id	Null	Number	No	No
qualifier_rule_id	Null	Number	No	No
request_id	Null	Number	No	No
start_date_active	Null	Date	Yes	No
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	Yes	No

attribute1-15
Default Value: FND_API.G_MISS_CHAR

comparison_operator_code
Default Value: FND_API.G_MISS_CHAR

context
Default Value: FND_API.G_MISS_CHAR

created_by
Default Value: FND_API.G_MISS_NUM

created_from_rule_id
Default Value: FND_API.G_MISS_NUM

creation_date
Default Value: FND_API.G_MISS_DATE

end_date_active
Default Value: FND_API.G_MISS_DATE

excluder_flag
Default Value: FND_API.G_MISS_CHAR

last_updated_by
Default Value: FND_API.G_MISS_NUM

last_update_date
Default Value: FND_API.G_MISS_DATE

last_update_login
Default Value: FND_API.G_MISS_NUM

list_header_id
Default Value: FND_API.G_MISS_NUM

list_line_id
Default Value: FND_API.G_MISS_NUM

program_application_id
Default Value: FND_API.G_MISS_NUM

program_id
Default Value: FND_API.G_MISS_NUM

program_update_date
Default Value: FND_API.G_MISS_DATE

qualifier_attribute
Default Value: FND_API.G_MISS_CHAR

qualifier_attr_value
Default Value: FND_API.G_MISS_CHAR

qualifier_context
Default Value: FND_API.G_MISS_CHAR

qualifier_grouping_no
Default Value: FND_API.G_MISS_NUM

qualifier_id
Default Value: FND_API.G_MISS_NUM

qualifier_rule_id
Default Value: FND_API.G_MISS_NUM

request_id
Default Value: FND_API.G_MISS_NUM

start_date_active
Default Value: FND_API.G_MISS_DATE

return_status
Default Value: FND_API.G_MISS_CHAR

db_flag
Default Value: FND_API.G_MISS_CHAR

operation
Default Value: FND_API.G_MISS_CHAR

QUALIFIERS_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–49 QUALIFIERS_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Qualifiers_Rec_Type	Null	Record	No	No

QUALIFIERS_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–50 QUALIFIERS_VAL_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
comparison_operator	Null	Varchar2	No	No
created_from_rule	Null	Varchar2	No	No
excluder	Null	Varchar2	No	No
list_header	Null	Varchar2	No	No
list_line	Null	Varchar2	No	No
qualifier	Null	Varchar2	No	No
qualifier_rule	Null	Varchar2	No	No

comparison_operator
Default Value: FND_API.G_MISS_CHAR

created_from_rule
Default Value: FND_API.G_MISS_CHAR

excluder
Default Value: FND_API.G_MISS_CHAR

list_header
Default Value: FND_API.G_MISS_CHAR

list_line
Default Value: FND_API.G_MISS_CHAR

qualifier
Default Value: FND_API.G_MISS_CHAR

qualifier_rule
Default Value: FND_API.G_MISS_CHAR

QUALIFIERS_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–51 QUALIFIERS_VAL_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Qualifiers_Val_Rec_Type	Null	Record	No	No

PRICING_ATTR_REC_TYPE

The following table shows the parameters for this structure.

Table 3–52 PRICING_ATTR_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
accumulate_flag	Null	Varchar2	No	No
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No

Table 3–52 PRICING_ATTR_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No
attribute_grouping_no	Null	Number	No	No
context	Null	Varchar2	No	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
excluder_flag	Null	Varchar2	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
list_line_id	Null	Number	No	No
pricing_attribute	Null	Varchar2	No	No
pricing_attribute_context	Null	Varchar2	No	No
pricing_attribute_id	Null	Number	No	No
pricing_attr_value_from	Null	Varchar2	No	No
pricing_attr_value_to	Null	Varchar2	No	No
product_attribute	Null	Varchar2	Yes	No
product_attribute_context	Null	Varchar2	Yes	No
product_attr_value	Null	Varchar2	Yes	No
product_uom_code	Null	Varchar2	Yes	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No
product_attribute_datatype	Null	Varchar2	No	No
pricing_attribute_datatype	Null	Varchar2	No	No

Table 3–52 PRICING_ATTR_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
comparison_operator_code	Null	Varchar2	Yes	No
request_id	Null	Number	No	No
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	Yes	No
MODIFIERS_index	Null	Number	Yes	No

accumulate_flag
Default Value: FND_API.G_MISS_CHAR

attribute1-15
Default Value: FND_API.G_MISS_CHAR

attribute_grouping_no
Default Value: FND_API.G_MISS_NUM

context
Default Value: FND_API.G_MISS_CHAR

created_by
Default Value: FND_API.G_MISS_NUM

creation_date
Default Value: FND_API.G_MISS_DATE

excluder_flag
Default Value: FND_API.G_MISS_CHAR

last_updated_by
Default Value: FND_API.G_MISS_NUM

last_update_date
Default Value: FND_API.G_MISS_DATE

last_update_login
Default Value: FND_API.G_MISS_NUM

list_line_id
Default Value: FND_API.G_MISS_NUM

pricing_attribute
Default Value: FND_API.G_MISS_CHAR

pricing_attribute_context
Default Value: FND_API.G_MISS_CHAR

pricing_attribute_id
Default Value: FND_API.G_MISS_NUM

pricing_attr_value_from
Default Value: FND_API.G_MISS_CHAR

pricing_attr_value_to
Default Value: FND_API.G_MISS_CHAR

product_attribute
Default Value: FND_API.G_MISS_CHAR

product_attribute_context
Default Value: FND_API.G_MISS_CHAR

product_attr_value
Default Value: FND_API.G_MISS_CHAR

product_uom_code
Default Value: FND_API.G_MISS_CHAR

program_application_id
Default Value: FND_API.G_MISS_NUM

program_id
Default Value: FND_API.G_MISS_NUM

program_update_date
Default Value: FND_API.G_MISS_DATE

product_attribute_datatype
Default Value: FND_API.G_MISS_CHAR

pricing_attribute_datatype
Default Value: FND_API.G_MISS_CHAR

comparison_operator_code
Default Value: FND_API.G_MISS_CHAR

request_id
Default Value: FND_API.G_MISS_NUM

return_status
Default Value: FND_API.G_MISS_CHAR

db_flag
Default Value: FND_API.G_MISS_CHAR

operation
Default Value: FND_API.G_MISS_CHAR

MODIFIERS_index
Default Value: FND_API.G_MISS_NUM

PRICING_ATTR_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–53 PRICING_ATTR_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Pricing_Attr_Rec_Type	Null	Record	No	No

PRICING_ATTR_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–54 PRICING_ATTR_VAL_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
accumulate	Null	Varchar2	No	No
excluder	Null	Varchar2	No	No
list_line	Null	Varchar2	No	No
pricing_attribute	Null	Varchar2	No	No
product_uom	Null	Varchar2	No	No

accumulate
Default Value: FND_API.G_MISS_CHAR

excluder
Default Value: FND_API.G_MISS_CHAR

list_line
Default Value: FND_API.G_MISS_CHAR

pricing_attribute
Default Value: FND_API.G_MISS_CHAR

product_uom
Default Value: FND_API.G_MISS_CHAR

PRICING_ATTR_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–55 PRICING_ATTR_VAL_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Pricing_Attr_Val_Rec_ Type	Null	Record	No	No

Validation of Business Object for Modifier Setup API

Standard Validation

Oracle Advanced Pricing validates all required columns in the Business Object for Modifier Setup API. For more information, see: *Oracle Pricing Technical Reference Manual*.

Other Validation

None

Error Handling

If any validation fails, the API will return error status to the calling module. The Business Object for Modifier Setup API processes the rows and reports the values in the following table for every record.

Table 3–56 Error Handling

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	null
Failure	4	actual error message

See

Oracle Pricing Technical Reference Manual

Example of Modifier Setup Application Program Interface

Example 1: Line level discount of 8% discount on all products

```
File Path : $QP_TOP/patch/115/sql/QPXEXDS1.sql
/* Discount Creation - Get 8% discount on all products  */
REM FILETYPE : NOEXEC

REM Added for ARU db drv auto generation
REM dbdrv: none

SET VERIFY OFF
WHENEVER SQLERROR EXIT FAILURE ROLLBACK;
--set serveroutput on
declare
/* $Header: QPXEXDS1.sql 115.4 2002/05/31 22:04:06 mkarya noship $ */
```

```
l_control_recQP_GLOBALS.Control_Rec_Type;
l_return_statusVARCHAR2(1);
x_msg_countnumber;
x_msg_dataVarchar2(2000);
x_msg_indexnumber;

l_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

l_x_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_x_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_x_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

mll_rec qp_list_lines%ROWTYPE;
pra_rec qp_pricing_attributes%ROWTYPE;

Begin

/* Create a Modifier header of type 'PRO' (Promotion) */

    l_MODIFIER_LIST_rec.currency_code:= 'USD';
    l_MODIFIER_LIST_rec.list_type_code:= 'PRO';
    l_MODIFIER_LIST_rec.start_date_active          := sysdate;
    l_MODIFIER_LIST_rec.end_date_active            := sysdate+10;
    l_MODIFIER_LIST_rec.source_system_code:= 'QP';
    l_MODIFIER_LIST_rec.active_flag:= 'Y';
    l_MODIFIER_LIST_rec.name:= 'New HALLOWEAN 2000 Deal';
    l_MODIFIER_LIST_rec.description:= ' Latest New Description of HALLOWEAN
    2000';
    l_MODIFIER_LIST_rec.version_no:= '9.4';
    l_MODIFIER_LIST_rec.pte_code                 := 'ORDFUL';
    l_MODIFIER_LIST_rec.operation:= QP_GLOBALS.G_OPR_CREATE;

/* Create a Modifier line to specify 'Get 8% discount' condition */
```

```
    l_MODIFIERS_tbl(1).list_line_type_code := 'DIS';
    l_MODIFIERS_tbl(1).automatic_flag:= 'Y';
    l_MODIFIERS_tbl(1).modifier_level_code := 'LINE';
    l_MODIFIERS_tbl(1).accrual_flag := 'N';
    l_MODIFIERS_tbl(1).start_date_active := sysdate;
    l_MODIFIERS_tbl(1).end_date_active := sysdate+10;l_MODIFIERS_
    tbl(1).arithmetic_operator := '%';
    l_MODIFIERS_tbl(1).pricing_group_sequence := 1;
    l_MODIFIERS_tbl(1).pricing_phase_id := 2;
    l_MODIFIERS_tbl(1).operand := 8;
    l_MODIFIERS_tbl(1).operation := QP_GLOBALS.G_OPR_CREATE;

/* Call the Modifiers Public API to create the modifier header and a  modifier
line */
```

QP_Modifiers_PUB.Process_Modifiers

```
    p_api_version_number=> 1.0
    , p_init_msg_list=> FND_API.G_FALSE
    , p_return_values=>  FND_API.G_FALSE
    , p_commit=> FND_API.G_FALSE
    , x_return_status=> l_return_status
    , x_msg_count=>x_msg_count
    , x_msg_data=>x_msg_data
    ,p_MODIFIER_LIST_rec=> l_MODIFIER_LIST_rec
    ,p_MODIFIERS_tbl=> l_MODIFIERS_tbl
    --,p_QUALIFIERS_tbl=> l_QUALIFIERS_tbl
    --,p_PRICING_ATTR_tbl=> l_PRICING_ATTR_tbl
    ,x_MODIFIER_LIST_rec=> l_MODIFIER_LIST_rec
    ,x_MODIFIER_LIST_val_rec=> l_MODIFIER_LIST_val_rec
    ,x_MODIFIERS_tbl=> l_MODIFIERS_tbl
    ,x_MODIFIERS_val_tbl=> l_MODIFIERS_val_tbl
    ,x_QUALIFIERS_tbl=> l_QUALIFIERS_tbl
    ,x_QUALIFIERS_val_tbl=> l_QUALIFIERS_val_tbl
    ,x_PRICING_ATTR_tbl=> l_PRICING_ATTR_tbl
    ,x_PRICING_ATTR_val_tbl=> l_PRICING_ATTR_val_tbl
    );

IF l_return_status <> FND_API.G_RET_STS_SUCCESS THEN

    RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

END IF;
```

```
EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

        l_return_status := FND_API.G_RET_STS_ERROR;

      --Get message count and data

dbms_output.put_line('err msg 1 is : ' || x_msg_data);

WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

        l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
        dbms_output.put_line(' msg count 2 is : ' || x_msg_count);

    for k in 1 .. x_msg_count loop

x_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

    );

--Get message count and data

    dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

    end loop;

    WHEN OTHERS THEN

    l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

       dbms_output.put_line(' msg count 2 is : ' || x_msg_count);


    for k in 1 .. x_msg_count loop
     x_msg_data := oe_msg_pub.get( p_msg_index => k,
p_encoded => 'F'

  );
--Get message count and data

    dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);
```

```
end loop;

END;
/
```

Example 2: Buy more than 5 quantities of item 62081 , Get 8% discount

```
File Path : $QP_TOP/patch/115/sql/QPXEXDS2.sql
/* Discount Creation - Buy 5 of item 62081, Get 8% discount */
REM FILETYPE : NOEXEC

REM Added for ARU db drv auto generation
REM dbdrv: none

SET VERIFY OFF
WHENEVER SQLERROR EXIT FAILURE ROLLBACK;
--set serveroutput on
declare
/* $Header: QPXEXDS2.sql 115.3 2002/05/31 22:15:07 mkarya noship $ */

l_control_recQP_GLOBALS.Control_Rec_Type;
l_return_statusVARCHAR2(1);
x_msg_countnumber;
x_msg_dataVarchar2(2000);
x_msg_indexnumber;

l_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

l_x_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_x_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_x_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

mll_rec qp_list_lines%ROWTYPE;
```

```
pra_rec qp_pricing_attributes%ROWTYPE;

Begin

/* Create a Modifier header of type 'PRO' (Promotion) */

    l_MODIFIER_LIST_rec.currency_code:= 'USD';
    l_MODIFIER_LIST_rec.list_type_code:= 'PRO';
    l_MODIFIER_LIST_rec.start_date_active          := sysdate;
    l_MODIFIER_LIST_rec.end_date_active            := sysdate+10;l_MODIFIER_
    LIST_rec.source_system_code:= 'QP';
    l_MODIFIER_LIST_rec.active_flag:= 'Y';
    l_MODIFIER_LIST_rec.name:= 'New HALLOWEAN 2000 Deal';
    l_MODIFIER_LIST_rec.description:= 'New Description of HALLOWEAN 2000';
    l_MODIFIER_LIST_rec.version_no:= '5.7';
    l_MODIFIER_LIST_rec.pte_code                 := 'ORDFUL';
    l_MODIFIER_LIST_rec.operation:= QP_GLOBALS.G_OPR_CREATE;

/* Create a Modifier line to specify 'Get 8% discount' condition */

l_MODIFIERS_tbl(1).list_line_type_code := 'DIS';
l_MODIFIERS_tbl(1).automatic_flag:= 'Y';
l_MODIFIERS_tbl(1).modifier_level_code := 'LINE';
l_MODIFIERS_tbl(1).accrual_flag := 'N';
l_MODIFIERS_tbl(1).start_date_active := sysdate;
l_MODIFIERS_tbl(1).end_date_active := sysdate+10;
l_MODIFIERS_tbl(1).operand := 8;
l_MODIFIERS_tbl(1).arithmetic_operator := '%';
l_MODIFIERS_tbl(1).pricing_group_sequence := 1;
l_MODIFIERS_tbl(1).pricing_phase_id := 3;
l_MODIFIERS_tbl(1).price_break_type_code := 'POINT';
l_MODIFIERS_tbl(1).operation := QP_GLOBALS.G_OPR_CREATE;

/* Create a Pricing Attribute record to specify the 'Buy 5 of item 62081'
condition */

l_PRICING_ATTR_tbl(1).product_attribute_context:= 'ITEM';
l_PRICING_ATTR_tbl(1).product_attribute:= 'PRICING_ATTRIBUTE1';
l_PRICING_ATTR_tbl(1).product_attr_value:= '62081';
l_PRICING_ATTR_tbl(1).pricing_attribute_context:= 'VOLUME';
l_PRICING_ATTR_tbl(1).pricing_attribute:= 'PRICING_ATTRIBUTE3';
l_PRICING_ATTR_tbl(1).pricing_attr_value_from:= '5';
l_PRICING_ATTR_tbl(1).comparison_operator_code:= 'BETWEEN';
l_PRICING_ATTR_tbl(1).product_uom_code:= 'Ea';
l_PRICING_ATTR_tbl(1).excluder_flag:= 'N';
```

```
l_PRICING_ATTR_tbl(1).MODIFIERS_index:=1;
l_PRICING_ATTR_tbl(1).operation            := QP_GLOBALS.G_OPR_CREATE;

/* Call the Modifiers Public API to create the modifier, modifier line and a
pricing attribute record   */

QP_Modifiers_PUB.Process_Modifiers

    ( p_api_version_number=> 1.0
     , p_init_msg_list=> FND_API.G_FALSE
     , p_return_values=> FND_API.G_FALSE
     , p_commit=> FND_API.G_FALSE
     , x_return_status=> l_return_status
     , x_msg_count=> x_msg_count
     , x_msg_data=> x_msg_data

,p_MODIFIER_LIST_rec=> l_MODIFIER_LIST_rec
,p_MODIFIERS_tbl=> l_MODIFIERS_tbl
--,p_QUALIFIERS_tbl=> l_QUALIFIERS_tbl
,p_PRICING_ATTR_tbl=> l_PRICING_ATTR_tbl
,x_MODIFIER_LIST_rec=> l_MODIFIER_LIST_rec
,x_MODIFIER_LIST_val_rec=> l_MODIFIER_LIST_val_rec
,x_MODIFIERS_tbl=> l_MODIFIERS_tbl
,x_MODIFIERS_val_tbl=> l_MODIFIERS_val_tbl
,x_QUALIFIERS_tbl=> l_QUALIFIERS_tbl
,x_QUALIFIERS_val_tbl=> l_QUALIFIERS_val_tbl
,x_PRICING_ATTR_tbl=> l_PRICING_ATTR_tbl
,x_PRICING_ATTR_val_tbl=> l_PRICING_ATTR_val_tbl
);

    IF l_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

        l_return_status := FND_API.G_RET_STS_ERROR;

--Get message count and data

        dbms_output.put_line('err msg 1 is : ' || x_msg_data);
```

```
    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

    l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

    dbms_output.put_line(' msg count 2 is : ' || x_msg_count);

for k in 1 .. x_msg_count loop

x_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

    );
--Get message count and data

    dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

       end loop;
WHEN OTHERS THEN

        l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
        dbms_output.put_line(' msg count 2 is : ' || x_msg_count);
for k in 1 .. x_msg_count loop

x_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'
        );
--Get message count and data

    dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

end loop;

END;
/
```

Example 3: For customer 1000, Buy more than 2 Units of item 62081, Get 10% discount

```
File Path : $QP_TOP/patch/115/sql/QPXEXDS3.sql
/* Discount Creation - For customer 1000, Buy 2 of item 62081, Get 10% discount
*/
REM FILETYPE : NOEXEC
```

```
REM Added for ARU db drv auto generation
REM dbdrv: none

SET VERIFY OFF
WHENEVER SQLERROR EXIT FAILURE ROLLBACK;
--set serveroutput on
declare
/* $Header: QPXEXDS3.sql 115.3 2002/05/31 22:24:21 mkarya noship $ */
l_control_recQP_GLOBALS.Control_Rec_Type;
l_return_statusVARCHAR2(1);
x_msg_countnumber;
x_msg_dataVarchar2(2000);
x_msg_indexnumber;

l_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

l_x_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_x_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_x_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

mll_rec qp_list_lines%ROWTYPE;
pra_rec qp_pricing_attributes%ROWTYPE;

Begin

/* Create a Modifier header of type 'PRO' (Promotion) */
    l_MODIFIER_LIST_rec.currency_code:= 'USD';
    l_MODIFIER_LIST_rec.list_type_code:= 'PRO';
    l_MODIFIER_LIST_rec.start_date_active          := sysdate;
    l_MODIFIER_LIST_rec.end_date_active            := sysdate+10;
    l_MODIFIER_LIST_rec.source_system_code:= 'QP';
    l_MODIFIER_LIST_rec.active_flag:= 'Y';
```

```
    l_MODIFIER_LIST_rec.name:= 'New Year 2001 Promotion';
    l_MODIFIER_LIST_rec.description:= 'New Year 2001 Promotion';
       l_MODIFIER_LIST_rec.version_no:= '6.7';
       l_MODIFIER_LIST_rec.pte_code                  := 'ORDFUL';
       l_MODIFIER_LIST_rec.operation:= QP_GLOBALS.G_OPR_CREATE;

/* Create a Modifier line to specify 'Get 10% discount' condition */

l_MODIFIERS_tbl(1).list_line_type_code := 'DIS';
l_MODIFIERS_tbl(1).automatic_flag := 'Y';
l_MODIFIERS_tbl(1).modifier_level_code := 'LINE';
l_MODIFIERS_tbl(1).accrual_flag := 'N';
l_MODIFIERS_tbl(1).start_date_active := sysdate;
l_MODIFIERS_tbl(1).end_date_active := sysdate+10;
l_MODIFIERS_tbl(1).operand := 10;
l_MODIFIERS_tbl(1).arithmetic_operator := '%';
l_MODIFIERS_tbl(1).pricing_group_sequence := 1;
l_MODIFIERS_tbl(1).pricing_phase_id := 3;
l_MODIFIERS_tbl(1).price_break_type_code := 'POINT';
l_MODIFIERS_tbl(1).operation := QP_GLOBALS.G_OPR_CREATE;

/* Create a Pricing Attribute record to specify the 'Buy 2 of item 62081'
condition */

l_PRICING_ATTR_tbl(1).product_attribute_context:= 'ITEM';
l_PRICING_ATTR_tbl(1).product_attribute:= 'PRICING_ATTRIBUTE1';
l_PRICING_ATTR_tbl(1).product_attr_value:= '62081';
l_PRICING_ATTR_tbl(1).pricing_attribute_context:= 'VOLUME';
l_PRICING_ATTR_tbl(1).pricing_attribute:= 'PRICING_ATTRIBUTE3';
l_PRICING_ATTR_tbl(1).pricing_attr_value_from:= '2';
l_PRICING_ATTR_tbl(1).comparison_operator_code:= 'BETWEEN';
l_PRICING_ATTR_tbl(1).product_uom_code:= 'Ea';
l_PRICING_ATTR_tbl(1).excluder_flag:= 'N';
l_PRICING_ATTR_tbl(1).MODIFIERS_index:=1;
l_PRICING_ATTR_tbl(1).operation                  := QP_GLOBALS.G_OPR_CREATE;

/* Create a Qualifier Record to specify 'For Customer 1000' condition */

  l_QUALIFIERS_tbl(1).excluder_flag := 'N';
  l_QUALIFIERS_tbl(1).comparison_operator_code := '=';
  l_QUALIFIERS_tbl(1).qualifier_context := 'CUSTOMER';
  l_QUALIFIERS_tbl(1).qualifier_attribute := 'QUALIFIER_ATTRIBUTE2';
  l_QUALIFIERS_tbl(1).qualifier_attr_value := '1000';
  l_QUALIFIERS_tbl(1).qualifier_grouping_no := 5467;
  l_QUALIFIERS_tbl(1).qualifier_precedence := 1;
```

```
  l_QUALIFIERS_tbl(1).start_date_active := '06-OCT-00';
  l_QUALIFIERS_tbl(1).end_date_active := '11-OCT-00';
  l_QUALIFIERS_tbl(1).operation := QP_GLOBALS.G_OPR_CREATE;

/* Call the Modifiers Public API to create the modifier header, modifier line,
qualifier and a pricing attributes record  */
```

QP_Modifiers_PUB.Process_Modifiers

```
    ( p_api_version_number=> 1.0
    , p_init_msg_list=> FND_API.G_FALSE
    , p_return_values=>  FND_API.G_FALSE
    , p_commit=> FND_API.G_FALSE
    , x_return_status=> l_return_status
    , x_msg_count=>x_msg_count
    , x_msg_data=>x_msg_data

,p_MODIFIER_LIST_rec=> l_MODIFIER_LIST_rec
,p_MODIFIERS_tbl=> l_MODIFIERS_tbl
,p_QUALIFIERS_tbl=> l_QUALIFIERS_tbl
,p_PRICING_ATTR_tbl=> l_PRICING_ATTR_tbl
,x_MODIFIER_LIST_rec=> l_MODIFIER_LIST_rec
,x_MODIFIER_LIST_val_rec=> l_MODIFIER_LIST_val_rec
,x_MODIFIERS_tbl=> l_MODIFIERS_tbl
,x_MODIFIERS_val_tbl=> l_MODIFIERS_val_tbl
,x_QUALIFIERS_tbl=> l_QUALIFIERS_tbl
,x_QUALIFIERS_val_tbl=> l_QUALIFIERS_val_tbl
,x_PRICING_ATTR_tbl=> l_PRICING_ATTR_tbl
,x_PRICING_ATTR_val_tbl=> l_PRICING_ATTR_val_tbl
);

    IF l_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

l_return_status := FND_API.G_RET_STS_ERROR;

--Get message count and data
```

```
    dbms_output.put_line('err msg 1 is : ' || x_msg_data);

    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

dbms_output.put_line(' msg count 2 is : ' || x_msg_count);

    for k in 1 .. x_msg_count loop

x_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

);

--Get message count and data

    dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

end loop;

    WHEN OTHERS THEN

    l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

dbms_output.put_line(' msg count 2 is : ' || x_msg_count);

    for k in 1 .. x_msg_count loop

x_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

);
--  Get message count and data

    dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

end loop;

END;
/
```

Example 4: Charge 2% surcharge on all products

```
File Path : /nfs/group/qpdev/qp/11.5/patch/115/sql/QPXEXSUR.sql
/* Surcharge Creation - Charge 2% surcharge on all products  */
REM FILETYPE : NOEXEC

REM Added for ARU db drv auto generation
REM dbdrv: none

SET VERIFY OFF
WHENEVER SQLERROR EXIT FAILURE ROLLBACK;
--set serveroutput on
declare
/* $Header: QPXEXSUR.sql 115.4 2002/05/31 22:48:04 mkarya noship $ */
l_control_recQP_GLOBALS.Control_Rec_Type;
l_return_statusVARCHAR2(1);
x_msg_countnumber;
x_msg_dataVarchar2(2000);
x_msg_indexnumber;

l_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

l_x_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_x_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_x_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

mll_rec qp_list_lines%ROWTYPE;
pra_rec qp_pricing_attributes%ROWTYPE;

Begin

/* Create a Modifier header of type 'SLT' (Surcharge List) */

    l_MODIFIER_LIST_rec.currency_code:= 'USD';
```

```
    l_MODIFIER_LIST_rec.list_type_code:= 'SLT';
    l_MODIFIER_LIST_rec.start_date_active          := sysdate;
    l_MODIFIER_LIST_rec.end_date_active            := sysdate+10;
    l_MODIFIER_LIST_rec.source_system_code:= 'QP';
    l_MODIFIER_LIST_rec.active_flag:= 'Y';
    l_MODIFIER_LIST_rec.name:= 'Surcharge';
    l_MODIFIER_LIST_rec.description:= '2% Surcharge';
    l_MODIFIER_LIST_rec.version_no:= '1.9';
    l_MODIFIER_LIST_rec.pte_code                   := 'ORDFUL';
    l_MODIFIER_LIST_rec.operation:= QP_GLOBALS.G_OPR_CREATE;

/* Create a Modifier line to specify 'Charge 2% Surcharge' condition */

    l_MODIFIERS_tbl(1).list_line_type_code := 'SUR';
    l_MODIFIERS_tbl(1).automatic_flag:= 'Y';
    l_MODIFIERS_tbl(1).modifier_level_code := 'LINE';
    l_MODIFIERS_tbl(1).accrual_flag := 'N';
    l_MODIFIERS_tbl(1).start_date_active := sysdate;
    l_MODIFIERS_tbl(1).end_date_active := sysdate+10;
    l_MODIFIERS_tbl(1).operand := 2;
    l_MODIFIERS_tbl(1).arithmetic_operator := '%';
    l_MODIFIERS_tbl(1).pricing_group_sequence := 1;
    l_MODIFIERS_tbl(1).pricing_phase_id := 2;
    l_MODIFIERS_tbl(1).operation := QP_GLOBALS.G_OPR_CREATE;

/* Call the Modifiers Public API to create the modifier header and a  modifier
line */
```

QP_Modifiers_PUB.Process_Modifiers

```
( p_api_version_number=> 1.0
, p_init_msg_list=> FND_API.G_FALSE
, p_return_values=>  FND_API.G_FALSE
, p_commit=> FND_API.G_FALSE
, x_return_status=> l_return_status
, x_msg_count=>x_msg_count
, x_msg_data=>x_msg_data
,p_MODIFIER_LIST_rec=> l_MODIFIER_LIST_rec
,p_MODIFIERS_tbl=> l_MODIFIERS_tbl
--,p_QUALIFIERS_tbl=> l_QUALIFIERS_tbl
--,p_PRICING_ATTR_tbl=> l_PRICING_ATTR_tbl
,x_MODIFIER_LIST_rec=> l_MODIFIER_LIST_rec
,x_MODIFIER_LIST_val_rec=> l_MODIFIER_LIST_val_rec
,x_MODIFIERS_tbl=> l_MODIFIERS_tbl
,x_MODIFIERS_val_tbl=> l_MODIFIERS_val_tbl
```

```
,x_QUALIFIERS_tbl=> l_QUALIFIERS_tbl
,x_QUALIFIERS_val_tbl=> l_QUALIFIERS_val_tbl
,x_PRICING_ATTR_tbl=> l_PRICING_ATTR_tbl
,x_PRICING_ATTR_val_tbl=> l_PRICING_ATTR_val_tbl
);
    IF l_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

        l_return_status := FND_API.G_RET_STS_ERROR;

--Get message count and data

    dbms_output.put_line('err msg 1 is : ' || x_msg_data);

    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

     l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
     dbms_output.put_line(' msg count 2 is : ' || x_msg_count);

for k in 1 .. x_msg_count loop

x_msg_data := oe_msg_pub.get( p_msg_index => k,
p_encoded => 'F'
     );

    --Get message count and data
dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);
end loop;

    WHEN OTHERS THEN

        l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

    dbms_output.put_line(' msg count 2 is : ' || x_msg_count);

    for k in 1 .. x_msg_count loop
    x_msg_data := oe_msg_pub.get( p_msg_index => k,
```

```
p_encoded => 'F'

);
--  Get message count and data
 dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

end loop;
END;
/
```

Example 5: For customer 1000, Buy more than 2 units of item 62081, Get a Payment Term 2/10 NET 30

```
File Path : $QP_TOP/patch/115/sql/QPXEXTSN.sql
/* Terms Substitution Creation - For customer 1000, Buy 2 of item 62081,
   Get a Payment Term 2/10 NET 30 */
REM FILETYPE : NOEXEC

REM Added for ARU db drv auto generation
REM dbdrv: none

SET VERIFY OFF
WHENEVER SQLERROR EXIT FAILURE ROLLBACK;
--set serveroutput on
declare
/* $Header: QPXEXTSN.sql 115.3 2002/05/31 22:45:46 mkarya noship $ */
l_control_recQP_GLOBALS.Control_Rec_Type;
l_return_statusVARCHAR2(1);
x_msg_countnumber;
x_msg_dataVarchar2(2000);
x_msg_indexnumber;

l_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

l_x_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_x_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
```

```
l_x_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

mll_rec qp_list_lines%ROWTYPE;
pra_rec qp_pricing_attributes%ROWTYPE;

Begin

/* Create a Modifier header of type 'PRO' (Promotion) */

    l_MODIFIER_LIST_rec.currency_code:= 'USD';
    l_MODIFIER_LIST_rec.list_type_code:= 'PRO';
    l_MODIFIER_LIST_rec.start_date_active          := sysdate;
    l_MODIFIER_LIST_rec.end_date_active            := sysdate+10;
    l_MODIFIER_LIST_rec.source_system_code:= 'QP';
    l_MODIFIER_LIST_rec.active_flag:= 'Y';
    l_MODIFIER_LIST_rec.name:= 'Terms Substitution';
    l_MODIFIER_LIST_rec.description:= 'New Year 2001 Promotion';
    l_MODIFIER_LIST_rec.version_no:= '1.7';
    l_MODIFIER_LIST_rec.pte_code                   := 'ORDFUL';
    l_MODIFIER_LIST_rec.operation:= QP_GLOBALS.G_OPR_CREATE;

/* Create a Modifier line to specify 'Get Payment Term 2/10 NET 30 ( Tems
id=1000) ' condition */

l_MODIFIERS_tbl(1).list_line_type_code := 'TSN';
l_MODIFIERS_tbl(1).automatic_flag:= 'Y';
l_MODIFIERS_tbl(1).modifier_level_code := 'LINE';
l_MODIFIERS_tbl(1).accrual_flag := 'N';
l_MODIFIERS_tbl(1).start_date_active := sysdate;
l_MODIFIERS_tbl(1).end_date_active := sysdate+10;--
l_MODIFIERS_tbl(1).pricing_group_sequence := 1;
l_MODIFIERS_tbl(1).pricing_phase_id := 3;
l_MODIFIERS_tbl(1).price_break_type_code := 'POINT';
l_MODIFIERS_tbl(1).substitution_context := 'TERMS';
l_MODIFIERS_tbl(1).substitution_attribute := 'QUALIFIER_ATTRIBUTE1';
l_MODIFIERS_tbl(1).substitution_value := '1000';
l_MODIFIERS_tbl(1).operation := QP_GLOBALS.G_OPR_CREATE;

/* Create a Pricing Attribute record to specify the 'Buy 2 of item 62081'
condition */

l_PRICING_ATTR_tbl(1).product_attribute_context:= 'ITEM';
```

```
l_PRICING_ATTR_tbl(1).product_attribute:= 'PRICING_ATTRIBUTE1';
l_PRICING_ATTR_tbl(1).product_attr_value:= '62081';
l_PRICING_ATTR_tbl(1).pricing_attribute_context:= 'VOLUME';
l_PRICING_ATTR_tbl(1).pricing_attribute:= 'PRICING_ATTRIBUTE3';
l_PRICING_ATTR_tbl(1).pricing_attr_value_from:= '2';
l_PRICING_ATTR_tbl(1).comparison_operator_code:= 'BETWEEN';
l_PRICING_ATTR_tbl(1).product_uom_code:= 'Ea';
l_PRICING_ATTR_tbl(1).excluder_flag:= 'N';
l_PRICING_ATTR_tbl(1).MODIFIERS_index:=1;
l_PRICING_ATTR_tbl(1).operation                  := QP_GLOBALS.G_OPR_CREATE;

/* Create a Qualifier Record to specify 'For Customer 1000' condition */

    l_QUALIFIERS_tbl(1).excluder_flag := 'N';
    l_QUALIFIERS_tbl(1).comparison_operator_code := '=';
    l_QUALIFIERS_tbl(1).qualifier_context := 'CUSTOMER';
    l_QUALIFIERS_tbl(1).qualifier_attribute := 'QUALIFIER_ATTRIBUTE2';
    l_QUALIFIERS_tbl(1).qualifier_attr_value := '1000';
    l_QUALIFIERS_tbl(1).qualifier_grouping_no := 5467;
    l_QUALIFIERS_tbl(1).qualifier_precedence := 1;
    l_QUALIFIERS_tbl(1).start_date_active := sysdate;
    l_QUALIFIERS_tbl(1).end_date_active := sysdate+10;
    l_QUALIFIERS_tbl(1).operation := QP_GLOBALS.G_OPR_CREATE;

/* Call the Modifiers Public API to create the modifier header, modifier line,
qualifier and a pricing attributes record  */

QP_Modifiers_PUB.Process_Modifiers

    ( p_api_version_number=> 1.0
    , p_init_msg_list=> FND_API.G_FALSE
    , p_return_values=>  FND_API.G_FALSE
    , p_commit=> FND_API.G_FALSE
    , x_return_status=> l_return_status
    , x_msg_count=>x_msg_count
    , x_msg_data=>x_msg_data

,p_MODIFIER_LIST_rec=> l_MODIFIER_LIST_rec
,p_MODIFIERS_tbl=> l_MODIFIERS_tbl
,p_QUALIFIERS_tbl=> l_QUALIFIERS_tbl
,p_PRICING_ATTR_tbl=> l_PRICING_ATTR_tbl
,x_MODIFIER_LIST_rec=> l_MODIFIER_LIST_rec
,x_MODIFIER_LIST_val_rec=> l_MODIFIER_LIST_val_rec
,x_MODIFIERS_tbl=> l_MODIFIERS_tbl
,x_MODIFIERS_val_tbl=> l_MODIFIERS_val_tbl
```

```
,x_QUALIFIERS_tbl=> l_QUALIFIERS_tbl
,x_QUALIFIERS_val_tbl=> l_QUALIFIERS_val_tbl
,x_PRICING_ATTR_tbl=> l_PRICING_ATTR_tbl
,x_PRICING_ATTR_val_tbl=> l_PRICING_ATTR_val_tbl
);

    IF l_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

        EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

l_return_status := FND_API.G_RET_STS_ERROR;

--Get message count and data

    dbms_output.put_line('err msg 1 is : ' || x_msg_data);

WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

    l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

    dbms_output.put_line(' msg count 2 is : ' || x_msg_count);

for k in 1 .. x_msg_count loop

x_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

);

    --Get message count and data

    dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

end loop;

    WHEN OTHERS THEN

    l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
```

```
    dbms_output.put_line(' msg count 2 is : ' || x_msg_count);

for k in 1 .. x_msg_count loop

x_msg_data := oe_msg_pub.get( p_msg_index => k,
p_encoded => 'F'

);
    --Get message count and data
    dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

end loop;

END;
/
```

Example 6: Other Item Discount Creation - Buy 1 of item 62081, Get 1 free

```
File Path: $QP_TOP/patch/115/sql/QPXEXOID.sql

/* Other Item Discount Creation - Buy 1 of item 62081, Get 1 free */
REM FILETYPE : NOEXEC

REM Added for ARU db drv auto generation
REM dbdrv: none

SET VERIFY OFF
WHENEVER SQLERROR EXIT FAILURE ROLLBACK;
--set serveroutput on
declare
/* $Header: QPXEXOID.sql 115.2 2002/05/31 22:28:05 mkarya noship $ */

l_control_recQP_GLOBALS.Control_Rec_Type;
l_return_statusVARCHAR2(1);
x_msg_countnumber;
x_msg_dataVarchar2(2000);
x_msg_indexnumber;

l_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
```

```
l_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

l_x_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_x_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_x_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

mll_rec qp_list_lines%ROWTYPE;
pra_rec qp_pricing_attributes%ROWTYPE;

Begin

/* Create a Modifier header of type 'PRO' (Promotion) */
    l_MODIFIER_LIST_rec.currency_code:= 'USD';
    l_MODIFIER_LIST_rec.list_type_code:= 'PRO';
    l_MODIFIER_LIST_rec.start_date_active          := sysdate;
    l_MODIFIER_LIST_rec.end_date_active            := sysdate+10;
    l_MODIFIER_LIST_rec.source_system_code:= 'QP';
    l_MODIFIER_LIST_rec.active_flag:= 'Y';
    l_MODIFIER_LIST_rec.name:= 'latest 3.7  OID 2001 Promotion';
    l_MODIFIER_LIST_rec.description:= 'latest OID 2001 Promotion';
    l_MODIFIER_LIST_rec.version_no:= '3.7';
    l_MODIFIER_LIST_rec.pte_code                   := 'ORDFUL';
    l_MODIFIER_LIST_rec.operation:= QP_GLOBALS.G_OPR_CREATE;

/* Create a Modifier line to specify Other Item Discount (OID)  */

l_MODIFIERS_tbl(1).list_line_type_code := 'OID';
l_MODIFIERS_tbl(1).automatic_flag:= 'Y';
l_MODIFIERS_tbl(1).modifier_level_code := 'LINE';
l_MODIFIERS_tbl(1).accrual_flag := 'N';
l_MODIFIERS_tbl(1).start_date_active := sysdate;
l_MODIFIERS_tbl(1).end_date_active := sysdate+10;
l_MODIFIERS_tbl(1).pricing_group_sequence := 1;
l_MODIFIERS_tbl(1).pricing_phase_id := 3;
l_MODIFIERS_tbl(1).product_precedence := 12;
l_MODIFIERS_tbl(1).price_break_type_code := 'POINT';
l_MODIFIERS_tbl(1).modifier_parent_index := 1;
l_MODIFIERS_tbl(1).operation := QP_GLOBALS.G_OPR_CREATE;
```

```
/* Create a Modifier line to specify the free (100% discount) condition  */

l_MODIFIERS_tbl(2).list_line_type_code := 'DIS';
l_MODIFIERS_tbl(2).automatic_flag:= 'Y';
l_MODIFIERS_tbl(2).modifier_level_code := 'LINE';
l_MODIFIERS_tbl(2).accrual_flag := 'N';
l_MODIFIERS_tbl(2).start_date_active := sysdate;
l_MODIFIERS_tbl(2).end_date_active := sysdate+10;
l_MODIFIERS_tbl(2).operand := 100;
l_MODIFIERS_tbl(2).arithmetic_operator := '%';
l_MODIFIERS_tbl(2).pricing_group_sequence := 1;
l_MODIFIERS_tbl(2).pricing_phase_id := 3;
l_MODIFIERS_tbl(2).product_precedence := 12;
l_MODIFIERS_tbl(2).price_break_type_code := 'POINT';
l_MODIFIERS_tbl(2).modifier_parent_index := 1;
l_MODIFIERS_tbl(2).rltd_modifier_grp_no := 12;
l_MODIFIERS_tbl(2).rltd_modifier_grp_type := 'BENEFIT';
l_MODIFIERS_tbl(2).operation := QP_GLOBALS.G_OPR_CREATE;

/* Create a Pricing Attribute record to specify the 'Buy 1 of item 62081'
condition. It is linked to the OID modifier record by specifying modifiers_
index=1  */

l_PRICING_ATTR_tbl(1).product_attribute_context:= 'ITEM';
l_PRICING_ATTR_tbl(1).product_attribute:= 'PRICING_ATTRIBUTE1';
l_PRICING_ATTR_tbl(1).product_attr_value:= '62081';
l_PRICING_ATTR_tbl(1).pricing_attribute_context:= 'VOLUME';
l_PRICING_ATTR_tbl(1).pricing_attribute:= 'PRICING_ATTRIBUTE3';
l_PRICING_ATTR_tbl(1).pricing_attr_value_from:= '1';
l_PRICING_ATTR_tbl(1).comparison_operator_code:= 'BETWEEN';
l_PRICING_ATTR_tbl(1).product_uom_code:= 'Ea';
l_PRICING_ATTR_tbl(1).excluder_flag:= 'N';
l_PRICING_ATTR_tbl(1).MODIFIERS_index:=1;
l_PRICING_ATTR_tbl(1).operation:= QP_GLOBALS.G_OPR_CREATE;

/* Create a Pricing Attribute record to specify the 'Get 1 of item 62081'
condition. It is linked to the DIS modifier record by specifying modifiers_
index=2  */

l_PRICING_ATTR_tbl(2).product_attribute_context:= 'ITEM';
l_PRICING_ATTR_tbl(2).product_attribute:= 'PRICING_ATTRIBUTE1';
l_PRICING_ATTR_tbl(2).product_attr_value:= '62081';
l_PRICING_ATTR_tbl(2).pricing_attribute_context:= 'VOLUME';
l_PRICING_ATTR_tbl(2).pricing_attribute:= 'PRICING_ATTRIBUTE3';
l_PRICING_ATTR_tbl(2).pricing_attr_value_from:= '1';
```

```
l_PRICING_ATTR_tbl(2).comparison_operator_code:= 'BETWEEN';
l_PRICING_ATTR_tbl(2).product_uom_code:= 'Ea';
l_PRICING_ATTR_tbl(2).excluder_flag:= 'N';
l_PRICING_ATTR_tbl(2).MODIFIERS_index:=2;
l_PRICING_ATTR_tbl(2).operation                 := QP_GLOBALS.G_OPR_CREATE;
```

QP_Modifiers_PUB.Process_Modifiers

```
( p_api_version_number => 1
    , p_init_msg_list => FND_API.G_FALSE
    , p_return_values =>  FND_API.G_FALSE
    , p_commit => FND_API.G_FALSE
    , x_return_status => l_return_status
    , x_msg_count =>x_msg_count
    , x_msg_data  =>x_msg_data

    ,p_MODIFIER_LIST_rec=> l_MODIFIER_LIST_rec
    ,p_MODIFIERS_tbl=> l_MODIFIERS_tbl
    ,p_PRICING_ATTR_tbl=> l_PRICING_ATTR_tbl
    ,x_MODIFIER_LIST_rec=> l_x_MODIFIER_LIST_rec
    ,x_MODIFIER_LIST_val_rec=> l_x_MODIFIER_LIST_val_rec
    ,x_MODIFIERS_tbl=> l_x_MODIFIERS_tbl
    ,x_MODIFIERS_val_tbl=> l_x_MODIFIERS_val_tbl
    ,x_QUALIFIERS_tbl=> l_x_QUALIFIERS_tbl
    ,x_QUALIFIERS_val_tbl=> l_x_QUALIFIERS_val_tbl
    ,x_PRICING_ATTR_tbl=> l_x_PRICING_ATTR_tbl
    ,x_PRICING_ATTR_val_tbl=> l_x_PRICING_ATTR_val_tbl
    );

    IF gpr_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

        l_return_status := FND_API.G_RET_STS_ERROR;

        --  Get message count and data

        --dbms_output.put_line('err msg 1 is : ' || x_msg_data);
```

```
Rollback

WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

    l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
--dbms_output.put_line(' msg count 2 is : ' || x_msg_count);

for k in 1 .. x_msg_                                          count loop
x_msg_data := oe_msg_pub.get( p_msg_index => k,

    p_encoded => 'F'
);
    /*
        oe_msg_pub.Count_And_Get
(   p_count  => gpr_msg_count
,   p_data   => gpr_msg_data
*/

--Get message count and data
--dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);
null;
end loop;
    Rollback;

    WHEN OTHERS THEN

    l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

--dbms_output.put_line(' msg count 5 is : ' || x_msg_count);

    for k in 1 .. x_msg_count loop

    x_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

);
    --Get message count and data
    --dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

    end loop;
END;
/
```

Example 7: Promotional Goods - Buy 1 of item 45 and 1 item 63, Get 1 item 62081 at 20% discount

```
File Path : $QP_TOP/patch/115/sql/QPXEXPRG.sql

/* Promotional Goods - Buy 1 of item 45 and 1 item 63, Get 1 item 62081 at 20%
discount */
REM FILETYPE : NOEXEC

REM Added for ARU db drv auto generation
REM dbdrv: none

SET VERIFY OFF
WHENEVER SQLERROR EXIT FAILURE ROLLBACK;
--set serveroutput on
declare
/* $Header: QPXEXPRG.sql 115.2 2002/05/31 22:36:47 mkarya noship $ */

l_control_recQP_GLOBALS.Control_Rec_Type;
l_return_statusVARCHAR2(1);
x_msg_countnumber;
x_msg_dataVarchar2(2000);
x_msg_indexnumber;

l_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

l_x_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_x_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_x_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

mll_rec qp_list_lines%ROWTYPE;
pra_rec qp_pricing_attributes%ROWTYPE;
```

```
Begin

/* Create a Modifier header of type 'PRO' (Promotion)- linked to item 45 */

    l_MODIFIER_LIST_rec.currency_code:= 'USD';
    l_MODIFIER_LIST_rec.list_type_code:= 'PRO';
    l_MODIFIER_LIST_rec.start_date_active          := sysdate;
    l_MODIFIER_LIST_rec.end_date_active            := sysdate+10;
    l_MODIFIER_LIST_rec.source_system_code:= 'QP';
    l_MODIFIER_LIST_rec.active_flag:= 'Y';
    1_MODIFIER_LIST_rec.name := 'latest 1.8 PRG 2001 Promotion';
   l_MODIFIER_LIST_rec.description:= 'latest PRG 2001 Promotion';
   l_MODIFIER_LIST_rec.version_no:= '1.8';
   l_MODIFIER_LIST_rec.pte_code                  := 'ORDFUL';
   l_MODIFIER_LIST_rec.operation:= QP_GLOBALS.G_OPR_CREATE;

/* Create a Modifier line to specify Promotional Goods (PRG) - linked to item 45
*/

l_MODIFIERS_tbl(1).list_line_type_code := 'PRG';
l_MODIFIERS_tbl(1).automatic_flag:= 'Y';
l_MODIFIERS_tbl(1).modifier_level_code := 'LINE';
l_MODIFIERS_tbl(1).accrual_flag := 'N';
l_MODIFIERS_tbl(1).start_date_active := sysdate;
l_MODIFIERS_tbl(1).end_date_active := sysdate+10;
l_MODIFIERS_tbl(1).pricing_group_sequence := 1;
l_MODIFIERS_tbl(1).pricing_phase_id := 3;
l_MODIFIERS_tbl(1).product_precedence := 12;
l_MODIFIERS_tbl(1).price_break_type_code := 'POINT';
l_MODIFIERS_tbl(1).modifier_parent_index := 1;
l_MODIFIERS_tbl(1).operation := QP_GLOBALS.G_OPR_CREATE;

/* Create a Modifier line to specify related item (RLTD) - linked to item 63  */

l_MODIFIERS_tbl(2).list_line_type_code := 'RLTD';
l_MODIFIERS_tbl(2).automatic_flag:= 'Y';
l_MODIFIERS_tbl(2).modifier_level_code := 'LINE';
l_MODIFIERS_tbl(2).accrual_flag := 'N';
l_MODIFIERS_tbl(2).start_date_active := sysdate;
l_MODIFIERS_tbl(2).end_date_active := sysdate+10;
l_MODIFIERS_tbl(2).pricing_group_sequence := 1;
l_MODIFIERS_tbl(2).pricing_phase_id := 3;
l_MODIFIERS_tbl(2).product_precedence := 12;
l_MODIFIERS_tbl(2).price_break_type_code := 'POINT';
l_MODIFIERS_tbl(2).modifier_parent_index := 1;
```

```
l_MODIFIERS_tbl(2).rltd_modifier_grp_no := 12;
l_MODIFIERS_tbl(2).rltd_modifier_grp_type := 'QUALIFIER';
l_MODIFIERS_tbl(2).operation := QP_GLOBALS.G_OPR_CREATE;

/* Create a Modifier line to specify 20% discount on item 62081  */

l_MODIFIERS_tbl(3).list_line_type_code := 'DIS';
l_MODIFIERS_tbl(3).automatic_flag:= 'Y';
l_MODIFIERS_tbl(3).modifier_level_code := 'LINE';
l_MODIFIERS_tbl(3).accrual_flag := 'N';
l_MODIFIERS_tbl(3).start_date_active := sysdate;
l_MODIFIERS_tbl(3).end_date_active := sysdate+10;
l_MODIFIERS_tbl(3).operand := 20;
l_MODIFIERS_tbl(3).arithmetic_operator := '%';
l_MODIFIERS_tbl(3).pricing_group_sequence := 1;
l_MODIFIERS_tbl(3).pricing_phase_id := 3;
l_MODIFIERS_tbl(3).product_precedence := 12;
l_MODIFIERS_tbl(3).price_break_type_code := 'POINT';
l_MODIFIERS_tbl(3).modifier_parent_index := 1;
l_MODIFIERS_tbl(3).rltd_modifier_grp_no := 10;
l_MODIFIERS_tbl(3).rltd_modifier_grp_type := 'BENEFIT';
l_MODIFIERS_tbl(3).benefit_price_list_line_id := 41187;
l_MODIFIERS_tbl(3).benefit_qty := 1;
l_MODIFIERS_tbl(3).benefit_uom_code := 'Ea';
l_MODIFIERS_tbl(3).operation := QP_GLOBALS.G_OPR_CREATE;

/* Create a Pricing Attribute record to specify the 'Buy 1 of item 45'
condition. It is linked to the PRG modifier record by specifying modifiers_
index=1  */

l_PRICING_ATTR_tbl(1).product_attribute_context:= 'ITEM';
l_PRICING_ATTR_tbl(1).product_attribute:= 'PRICING_ATTRIBUTE1';
l_PRICING_ATTR_tbl(1).product_attr_value:= '45';
l_PRICING_ATTR_tbl(1).pricing_attribute_context:= 'VOLUME';
l_PRICING_ATTR_tbl(1).pricing_attribute:= 'PRICING_ATTRIBUTE3';
l_PRICING_ATTR_tbl(1).pricing_attr_value_from:= '1';
l_PRICING_ATTR_tbl(1).comparison_operator_code:= 'BETWEEN';
l_PRICING_ATTR_tbl(1).product_uom_code:= 'Ea';
l_PRICING_ATTR_tbl(1).excluder_flag:= 'N';
l_PRICING_ATTR_tbl(1).MODIFIERS_index:=1;
l_PRICING_ATTR_tbl(1).operation                  := QP_GLOBALS.G_OPR_CREATE;

/* Create a Pricing Attribute record to specify the 'Buy 1 of item 63'
condition. It is linked to the RLTD modifier record by specifying modifiers_
index=2  */
```

```
l_PRICING_ATTR_tbl(2).product_attribute_context:= 'ITEM';
l_PRICING_ATTR_tbl(2).product_attribute:= 'PRICING_ATTRIBUTE1';
l_PRICING_ATTR_tbl(2).product_attr_value:= '63';
l_PRICING_ATTR_tbl(2).pricing_attribute_context:= 'VOLUME';
l_PRICING_ATTR_tbl(2).pricing_attribute:= 'PRICING_ATTRIBUTE3';
l_PRICING_ATTR_tbl(2).pricing_attr_value_from:= '1';
l_PRICING_ATTR_tbl(2).comparison_operator_code:= 'BETWEEN';
l_PRICING_ATTR_tbl(2).product_uom_code:= 'Ea';
l_PRICING_ATTR_tbl(2).excluder_flag:= 'N';
l_PRICING_ATTR_tbl(2).MODIFIERS_index:=2;
l_PRICING_ATTR_tbl(2).operation                  := QP_GLOBALS.G_OPR_CREATE;

/* Create a Pricing Attribute record to specify the 'Get 1 of item 62081'
condition. It is linked to the DIS modifier record by specifying modifiers_
index=3  */

l_PRICING_ATTR_tbl(3).product_attribute_context:= 'ITEM';
l_PRICING_ATTR_tbl(3).product_attribute:= 'PRICING_ATTRIBUTE1';
l_PRICING_ATTR_tbl(3).product_attr_value:= '62081';
l_PRICING_ATTR_tbl(3).pricing_attribute_context:= 'VOLUME';
l_PRICING_ATTR_tbl(3).pricing_attribute:= 'PRICING_ATTRIBUTE3';
l_PRICING_ATTR_tbl(3).pricing_attr_value_from:= '1';
l_PRICING_ATTR_tbl(3).comparison_operator_code:= 'BETWEEN';
l_PRICING_ATTR_tbl(3).product_uom_code:= 'Ea';
l_PRICING_ATTR_tbl(3).excluder_flag:= 'N';
l_PRICING_ATTR_tbl(3).MODIFIERS_index:=3;
l_PRICING_ATTR_tbl(3).operation                  := QP_GLOBALS.G_OPR_CREATE;
```

QP_Modifiers_PUB.Process_Modifiers

```
    ( p_api_version_number=> 1.0
    , p_init_msg_list=> FND_API.G_FALSE
    , p_return_values=>  FND_API.G_FALSE
    , p_commit=> FND_API.G_FALSE
    , x_return_status=> l_return_status
    , x_msg_count=>x_msg_count
    , x_msg_data=>x_msg_data

,p_MODIFIER_LIST_rec=> l_MODIFIER_LIST_rec
,p_MODIFIERS_tbl=> l_MODIFIERS_tbl
,p_PRICING_ATTR_tbl=> l_PRICING_ATTR_tbl
,x_MODIFIER_LIST_rec=> l_x_MODIFIER_LIST_rec
,x_MODIFIER_LIST_val_rec=> l_x_MODIFIER_LIST_val_rec
,x_MODIFIERS_tbl=> l_x_MODIFIERS_tbl
```

```
,x_MODIFIERS_val_tbl=> l_x_MODIFIERS_val_tbl
,x_QUALIFIERS_tbl=> l_x_QUALIFIERS_tbl
,x_QUALIFIERS_val_tbl=> l_x_QUALIFIERS_val_tbl
,x_PRICING_ATTR_tbl=> l_x_PRICING_ATTR_tbl
,x_PRICING_ATTR_val_tbl=> l_x_PRICING_ATTR_val_tbl
);

    IF l_return_status <> FND_API.G_RET_STS_SUCCESS THEN

            RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

    l_return_status := FND_API.G_RET_STS_ERROR;

    --Get message count and data

    --dbms_output.put_line('err msg 1 is : ' || x_msg_data);

WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

        l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
        --dbms_output.put_line(' msg count 2 is : ' || x_msg_count);

    for k in 1 .. x_msg_count loop

x_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

);

    --Get message count and data
    --dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

    end loop;

    WHEN OTHERS THEN

l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
```

```
--dbms_output.put_line(' msg count 5 is : ' || x_msg_count);

    for k in 1 .. x_msg_count loop

x_msg_data := oe_msg_pub.get( p_msg_index => k,
p_encoded => 'F'
);
    --Get message count and data

    --dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

end loop;
END;
/
```

Example 8: Coupon Issue - Buy 2 of item 45, Get Coupon for 20% discount

```
File Path : $QP_TOP/patch/115/sql/QPXEXCIE.sql
-- Coupon Issue - Buy 2 of item 45, Get Coupon for 20% discount
REM FILETYPE : NOEXEC

REM Added for ARU db drv auto generation
REM dbdrv: none

SET VERIFY OFF
WHENEVER SQLERROR EXIT FAILURE ROLLBACK;
--set serveroutput on
declare
/* $Header: QPXEXCIE.sql 115.2 2002/05/31 22:19:14 mkarya noship $ */

l_control_recQP_GLOBALS.Control_Rec_Type;
l_return_statusVARCHAR2(1);
x_msg_countnumber;
x_msg_dataVarchar2(2000);
x_msg_indexnumber;

l_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;
```

```
l_x_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_x_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_x_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

mll_rec qp_list_lines%ROWTYPE;
pra_rec qp_pricing_attributes%ROWTYPE;

Begin

/* Create a Modifier header of type 'PRO' (Promotion) */

    l_MODIFIER_LIST_rec.currency_code:= 'USD';
    l_MODIFIER_LIST_rec.list_type_code:= 'PRO';
    l_MODIFIER_LIST_rec.start_date_active          := sysdate;
    l_MODIFIER_LIST_rec.end_date_active            := sysdate+10;
    l_MODIFIER_LIST_rec.source_system_code:= 'QP';
    l_MODIFIER_LIST_rec.active_flag:= 'Y';
    l_MODIFIER_LIST_rec.name:= 'latest 2.1 CIE 2001 Promotion';
    1_MODIFIER_LIST_rec.description:= 'latest CIE 2001 Promotion';
    1_MODIFIER_LIST_rec.version_no:= '2.1';
    l_MODIFIER_LIST_rec.pte_code                   := 'ORDFUL';
    l_MODIFIER_LIST_rec.operation:= QP_GLOBALS.G_OPR_CREATE;

/* Create a modifier of type Coupon Issue (CIE). The from_rltd_modifier_id is
the list_line_id of another modifier which specifies the 'Get 20% discount'
condition of the Coupon. So, this modifier needs to be created prior to creating
this Coupun Issue   */

l_MODIFIERS_tbl(1).list_line_type_code := 'CIE';
l_MODIFIERS_tbl(1).automatic_flag:= 'Y';
l_MODIFIERS_tbl(1).modifier_level_code := 'LINE';
l_MODIFIERS_tbl(1).accrual_flag := 'Y';
l_MODIFIERS_tbl(1).start_date_active := sysdate;
l_MODIFIERS_tbl(1).end_date_active := sysdate+10;
l_MODIFIERS_tbl(1).pricing_group_sequence := 1;
l_MODIFIERS_tbl(1).pricing_phase_id := 3;
l_MODIFIERS_tbl(1).product_precedence := 12;
l_MODIFIERS_tbl(1).price_break_type_code := 'POINT';
l_MODIFIERS_tbl(1).modifier_parent_index := 1;
l_MODIFIERS_tbl(1).to_rltd_modifier_id := 306693;
```

```
l_MODIFIERS_tbl(1).rltd_modifier_grp_no := 10;
l_MODIFIERS_tbl(1).rltd_modifier_grp_type := 'COUPON';
l_MODIFIERS_tbl(1).operation := QP_GLOBALS.G_OPR_CREATE;

/* Create a Pricing Attribute record to specify the 'Buy 2 of item 45'
condition. It is linked to the CIE modifier record by specifying modifiers_
index=1  */

l_PRICING_ATTR_tbl(1).product_attribute_context:= 'ITEM';
l_PRICING_ATTR_tbl(1).product_attribute:= 'PRICING_ATTRIBUTE1';
l_PRICING_ATTR_tbl(1).product_attr_value:= '45';
l_PRICING_ATTR_tbl(1).pricing_attribute_context:= 'VOLUME';
l_PRICING_ATTR_tbl(1).pricing_attribute:= 'PRICING_ATTRIBUTE10';
l_PRICING_ATTR_tbl(1).pricing_attr_value_from := 2;
l_PRICING_ATTR_tbl(1).comparison_operator_code:= 'BETWEEN';
l_PRICING_ATTR_tbl(1).product_uom_code:= 'Ea';
l_PRICING_ATTR_tbl(1).excluder_flag:= 'N';
l_PRICING_ATTR_tbl(1).MODIFIERS_index:=1;
l_PRICING_ATTR_tbl(1).operation := QP_GLOBALS.G_

    , p_init_msg_list=> FND_API.G_FALSE
    , p_return_values=>  FND_API.G_FALSE
    , p_commit=> FND_API.G_FALSE
    , x_return_status=> l_return_status
    , x_msg_count=>x_msg_count
    , x_msg_data=>x_msg_data

,p_MODIFIER_LIST_rec=> l_MODIFIER_LIST_rec
,p_MODIFIERS_tbl=> l_MODIFIERS_tbl
,p_QUALIFIERS_tbl=> l_QUALIFIERS_tbl
,p_PRICING_ATTR_tbl=> l_PRICING_ATTR_tbl
,x_MODIFIER_LIST_rec=> l_x_MODIFIER_LIST_rec
,x_MODIFIER_LIST_val_rec=> l_x_MODIFIER_LIST_val_rec
,x_MODIFIERS_tbl=> l_x_MODIFIERS_tbl
,x_MODIFIERS_val_tbl=> l_x_MODIFIERS_val_tbl
,x_QUALIFIERS_tbl=> l_x_QUALIFIERS_tbl
,x_QUALIFIERS_val_tbl=> l_x_QUALIFIERS_val_tbl
,x_PRICING_ATTR_tbl=> l_x_PRICING_ATTR_tbl
,x_PRICING_ATTR_val_tbl=> l_x_PRICING_ATTR_val_tbl
);

    IF l_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;
```

```
    END IF;

EXCEPTION

        WHEN FND_API.G_EXC_ERROR THEN

    l_return_status := FND_API.G_RET_STS_ERROR;

    --Get message count and data

    --dbms_output.put_line('err msg 1 is : ' || x_msg_data);

WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

    l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
    --dbms_output.put_line(' msg count 2 is : ' || x_msg_count);

    for k in 1 .. x_msg_count loop

x_msg_data := oe_msg_pub.get( p_msg_index => k,
p_encoded => 'F'

);
        --Get message count and data
        --dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

    end loop;

WHEN OTHERS THEN

    l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

    --dbms_output.put_line(' msg count 5 is : ' || x_msg_count);

    for k in 1 .. x_msg_count loop

x_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

);
    --Get message count and data
    --dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

    end loop;
```

```
END;
/
```

Example 9: Price Break - Buy 1-100 of item 45, Get 20% discount

Buy 101-200 of item 45, Get 25% discount

```
File Path: $QP_TOP/patch/115/sql/QPXEXPBH.sql

/* Price Break - Buy 1-100 of item 45, Get 20% discount
Buy 101-200 of item 45, Get 25% discount              */
REM FILETYPE : NOEXEC

REM Added for ARU db drv auto generation
REM dbdrv: none

SET VERIFY OFF
WHENEVER SQLERROR EXIT FAILURE ROLLBACK;
--set serveroutput on
declare
/* $Header: QPXEXPBH.sql 115.2 2002/05/31 22:32:45 mkarya noship $ */

l_control_recQP_GLOBALS.Control_Rec_Type;
l_return_statusVARCHAR2(1);
x_msg_countnumber;
x_msg_dataVarchar2(2000);
x_msg_indexnumber;

l_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

l_x_MODIFIER_LIST_recQP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_recQP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_x_MODIFIERS_tblQP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tblQP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_x_QUALIFIERS_tblQP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tblQP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tblQP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tblQP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;
```

```
mll_rec qp_list_lines%ROWTYPE;
pra_rec qp_pricing_attributes%ROWTYPE;

Begin

/* Create a Modifier header of type 'PRO' (Promotion) */

    l_MODIFIER_LIST_rec.currency_code:= 'USD';
    l_MODIFIER_LIST_rec.list_type_code:= 'PRO';
    l_MODIFIER_LIST_rec.start_date_active          := sysdate;
    l_MODIFIER_LIST_rec.end_date_active            := sysdate+10;
    l_MODIFIER_LIST_rec.source_system_code:= 'QP';
    l_MODIFIER_LIST_rec.active_flag:= 'Y';
    l_MODIFIER_LIST_rec.name:= 'latest 1.9 PBH 2001 Promotion';
    l_MODIFIER_LIST_rec.description:= 'latest PBH 2001 Promotion';
    l_MODIFIER_LIST_rec.version_no:= '1.9';
    l_MODIFIER_LIST_rec.pte_code                   := 'ORDFUL';
    l_MODIFIER_LIST_rec.operation:= QP_GLOBALS.G_OPR_CREATE;

/* Create a Modifier line to specify Price Break (PBH) - linked to item 45 */

l_MODIFIERS_tbl(1).list_line_type_code := 'PBH';
l_MODIFIERS_tbl(1).automatic_flag:= 'Y';
l_MODIFIERS_tbl(1).modifier_level_code := 'LINE';
l_MODIFIERS_tbl(1).accrual_flag := 'N';
l_MODIFIERS_tbl(1).start_date_active := sysdate;
l_MODIFIERS_tbl(1).end_date_active := sysdate+10;
l_MODIFIERS_tbl(1).pricing_group_sequence := 1;
l_MODIFIERS_tbl(1).pricing_phase_id := 3;
l_MODIFIERS_tbl(1).product_precedence := 12;
l_MODIFIERS_tbl(1).price_break_type_code := 'POINT';
l_MODIFIERS_tbl(1).modifier_parent_index := 1;
l_MODIFIERS_tbl(1).operation := QP_GLOBALS.G_OPR_CREATE;

/* Create a Modifier line to specify 20% discount - linked to item 45   */

l_MODIFIERS_tbl(2).list_line_type_code := 'DIS';
l_MODIFIERS_tbl(2).automatic_flag:= 'Y';
l_MODIFIERS_tbl(2).modifier_level_code := 'LINE';
l_MODIFIERS_tbl(2).accrual_flag := 'N';
l_MODIFIERS_tbl(2).start_date_active := sysdate;
l_MODIFIERS_tbl(2).end_date_active := sysdate+10;
l_MODIFIERS_tbl(2).operand := 20;
l_MODIFIERS_tbl(2).arithmetic_operator := '%';
```

```
l_MODIFIERS_tbl(2).pricing_group_sequence := 1;
l_MODIFIERS_tbl(2).pricing_phase_id := 3;
l_MODIFIERS_tbl(2).product_precedence := 12;
l_MODIFIERS_tbl(2).price_break_type_code := 'POINT';
l_MODIFIERS_tbl(2).modifier_parent_index := 1;
l_MODIFIERS_tbl(2).rltd_modifier_grp_no := 10;
l_MODIFIERS_tbl(2).rltd_modifier_grp_type := 'PRICE BREAK';
l_MODIFIERS_tbl(2).operation := QP_GLOBALS.G_OPR_CREATE;

/* Create a Modifier line to specify 25% discount - linked to item 45   */

l_MODIFIERS_tbl(3).list_line_type_code := 'DIS';
l_MODIFIERS_tbl(3).automatic_flag:= 'Y';
l_MODIFIERS_tbl(3).modifier_level_code := 'LINE';
l_MODIFIERS_tbl(3).accrual_flag := 'N';
l_MODIFIERS_tbl(3).start_date_active := sysdate;
l_MODIFIERS_tbl(3).end_date_active := sysdate+10;
l_MODIFIERS_tbl(3).operand := 25;
l_MODIFIERS_tbl(3).arithmetic_operator := '%';
l_MODIFIERS_tbl(3).pricing_group_sequence := 1;
l_MODIFIERS_tbl(3).pricing_phase_id := 3;
l_MODIFIERS_tbl(3).product_precedence := 12;
l_MODIFIERS_tbl(3).price_break_type_code := 'POINT';
l_MODIFIERS_tbl(3).modifier_parent_index := 1;
l_MODIFIERS_tbl(3).rltd_modifier_grp_no := 10;
l_MODIFIERS_tbl(3).rltd_modifier_grp_type := 'PRICE BREAK';
l_MODIFIERS_tbl(3).operation := QP_GLOBALS.G_OPR_CREATE;

/* Create a Pricing Attribute record to specify the 'Buy item 45' condition. It
is linked to the PBH modifier record by specifying modifiers_index=1  */

l_PRICING_ATTR_tbl(1).product_attribute_context:= 'ITEM';
l_PRICING_ATTR_tbl(1).product_attribute:= 'PRICING_ATTRIBUTE1';
l_PRICING_ATTR_tbl(1).product_attr_value:= '45';
l_PRICING_ATTR_tbl(1).pricing_attribute_context:= 'VOLUME';
l_PRICING_ATTR_tbl(1).pricing_attribute:= 'PRICING_ATTRIBUTE10';
l_PRICING_ATTR_tbl(1).comparison_operator_code:= 'BETWEEN';
l_PRICING_ATTR_tbl(1).product_uom_code:= 'Ea';
l_PRICING_ATTR_tbl(1).excluder_flag:= 'N';
l_PRICING_ATTR_tbl(1).MODIFIERS_index:=1;
l_PRICING_ATTR_tbl(1).operation                  := QP_GLOBALS.G_OPR_CREATE;

/* Create a Pricing Attribute record to specify the 'Buy 1-100 of item 45'
condition. It is linked to the DIS modifier record by specifying modifiers_
index=2  */
```

```
l_PRICING_ATTR_tbl(2).product_attribute_context:= 'ITEM';
l_PRICING_ATTR_tbl(2).product_attribute:= 'PRICING_ATTRIBUTE1';
l_PRICING_ATTR_tbl(2).product_attr_value:= '45';
l_PRICING_ATTR_tbl(2).pricing_attribute_context:= 'VOLUME';
l_PRICING_ATTR_tbl(2).pricing_attribute:= 'PRICING_ATTRIBUTE10';
l_PRICING_ATTR_tbl(2).pricing_attr_value_from:= '1';
l_PRICING_ATTR_tbl(2).pricing_attr_value_to:= '100';
l_PRICING_ATTR_tbl(2).comparison_operator_code:= 'BETWEEN';
l_PRICING_ATTR_tbl(2).product_uom_code:= 'Ea';
l_PRICING_ATTR_tbl(2).excluder_flag:= 'N';
l_PRICING_ATTR_tbl(2).MODIFIERS_index:=2;
l_PRICING_ATTR_tbl(2).operation                  := QP_GLOBALS.G_OPR_CREATE;

/* Create a Pricing Attribute record to specify the 'Buy 101-200 of item 45'
condition. It is linked to the DIS modifier record by specifying modifiers_
index=3  */

l_PRICING_ATTR_tbl(3).product_attribute_context:= 'ITEM';
l_PRICING_ATTR_tbl(3).product_attribute:= 'PRICING_ATTRIBUTE1';
l_PRICING_ATTR_tbl(3).product_attr_value:= '45';
l_PRICING_ATTR_tbl(3).pricing_attribute_context:= 'VOLUME';
l_PRICING_ATTR_tbl(3).pricing_attribute:= 'PRICING_ATTRIBUTE10';
l_PRICING_ATTR_tbl(3).pricing_attr_value_from:= '101';
l_PRICING_ATTR_tbl(3).pricing_attr_value_to:= '200';
l_PRICING_ATTR_tbl(3).comparison_operator_code:= 'BETWEEN';
l_PRICING_ATTR_tbl(3).product_uom_code:= 'Ea';
l_PRICING_ATTR_tbl(3).excluder_flag:= 'N';
l_PRICING_ATTR_tbl(3).MODIFIERS_index:=3;
l_PRICING_ATTR_tbl(3).operation                := QP_GLOBALS.G_OPR_CREATE;
```

QP_Modifiers_PUB.Process_Modifiers

```
    ( p_api_version_number=> 1.0
    , p_init_msg_list=> FND_API.G_FALSE
    , p_return_values=>  FND_API.G_FALSE
    , p_commit=> FND_API.G_FALSE
    , x_return_status=> l_return_status
    , x_msg_count=> x_msg_count
    , x_msg_data=> x_msg_data
,p_MODIFIER_LIST_rec=> l_MODIFIER_LIST_rec
,p_MODIFIERS_tbl=> l_MODIFIERS_tbl
,p_PRICING_ATTR_tbl=> l_PRICING_ATTR_tbl
,x_MODIFIER_LIST_rec=> l_x_MODIFIER_LIST_rec
,x_MODIFIER_LIST_val_rec=> l_x_MODIFIER_LIST_val_rec
```

```
,x_MODIFIERS_tbl=> l_x_MODIFIERS_tbl
,x_MODIFIERS_val_tbl=> l_x_MODIFIERS_val_tbl
,x_QUALIFIERS_tbl=> l_x_QUALIFIERS_tbl
,x_QUALIFIERS_val_tbl=> l_x_QUALIFIERS_val_tbl
,x_PRICING_ATTR_tbl=> l_x_PRICING_ATTR_tbl
,x_PRICING_ATTR_val_tbl => l_x_PRICING_ATTR_val_tbl
);

    IF l_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

        l_return_status := FND_API.G_RET_STS_ERROR;

        --  Get message count and data

        --dbms_output.put_line('err msg 1 is : ' || x_msg_data);

    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

        l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

        --dbms_output.put_line(' msg count 2 is : ' || x_msg_count);

for k in 1 .. x_msg_count loop

x_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

);
    --Get message count and data
    --dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

end loop;
```

```
    WHEN OTHERS THEN

        l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

        --dbms_output.put_line(' msg count 5 is : ' || x_msg_count);

for k in 1 .. x_msg_count loop

x_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

);
    --Get message count and data
    --dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

end loop;

END;
/
```

Business Object for Pricing Formulas Application Program Interface

This section explains how to use the Business Object for Pricing Formulas API and how it functions in Oracle Advanced Pricing. The Business Object for Pricing Formulas package consists of entities to support the Formulas window.

Functional Overview

The Formulas window is based on the following APIs. However, the modal Formula Factors window is based on the Modifiers public API QP_Modifiers_PUB.Process_Modifiers.

The package QP_Price_Formula_PUB contains the following public record type and table of records definitions:

- Formula_Rec_Type: A record type corresponding to the columns in the Formula Headers view (QP_PRICE_FORMULAS_VL).
- Formula_Tbl_Type
- Formula_Val_Rec_Type: A record type used to store values corresponding to IDs in the formula record.
- Formula_Val_Tbl_Type
- Formula_Lines_Rec_Type: A record type corresponding to the columns in the Formula Lines table (QP_PRICE_FORMULA_LINES).
- Formula_Lines_Tbl_Type
- Formula_Lines_Val_Rec_Type: A record type used to store values corresponding to IDs in the Formula Lines record.
- Formula_Lines_Val_Tbl_Type
- QP_Price_formula_PUB.Process_Price_Formula: Performs the insert, update, and delete of price formula header and price formula lines.
- QP_Price_formula_PUB.Lock_Price_Formula: Locks price formula header and price formula lines records prior to updates.
- QP_Price_formula_PUB.Get_Price_Formula: Retrieves the price formula header and lines for a given formula.

Setting Up and Parameter Descriptions

The following chart describes all parameters and the inbound and outbound parameters. Additional information on these parameters follows.

QP_PRICE_FORMULA.PROCESS_PRICE_FORMULA

The following table shows the parameters for this structure.

Table 3–57 QP_PRICE_FORMULA.PROCESS_PRICE_FORMULA Parameters

Parameter	Usage	Type	Req	Drv
p_api_version_number	In	Number	No	No
p_init_msg_list	In	Varchar2	No	No
p_return_values	In	Varchar2	No	No
p_commit	In	Varchar2	No	No
x_return_status	Out	Varchar2	No	No
x_msg_count	Out	Number	No	No
x_msg_data	Out	Varchar2	No	No
p_FORMULA_rec	In	Formula_Rec_ Type	No	No
p_FORMULA_val_rec	In	Formula_Val_ Rec_Type	No	No
p_FORMULA_LINES_tbl	In	Formula_Lines_ Tbl_Type	No	No
p_FORMULA_LINES_ val_tbl	In	Formula_Lines_ Val_Tbl_Type	No	No
x_FORMULA_rec	Out	Formula_Rec_ Type	No	No
x_FORMULA_val_rec	Out	Formula_Val_ Rec_Type	No	No
x_FORMULA_LINES_tbl	Out	Formula_Lines_ Tbl_Type	No	No
x_FORMULA_LINES_ val_tbl	Out	Formula_Lines_ Val_Tbl_Type	No	No

p_init_msg_list

Default Value: FND_API.G_FALSE

p_return_values

Default Value: FND_API.G_FALSE

p_commit
Default Value: FND_API.G_FALSE

p_FORMULA_rec
Default Value: G_MISS_FORMULA_REC

p_FORMULA_val_rec
Default Value: G_MISS_FORMULA_VAL_REC

p_FORMULA_LINES_tbl
Default Value: G_MISS_FORMULA_LINES_TBL

p_FORMULA_LINES_val_tbl
Default Value: G_MISS_FORMULA_LINES_VAL_TBL

FORMULA_REC_TYPE The following table shows the parameters for this structure:

Table 3–58 FORMULA_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No

Table 3–58 FORMULA_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
attribute15	Null	Varchar2	No	No
context	Null	Varchar2	No	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
description	Null	Varchar2	No	No
end_date_active	Null	Date	No	No
formula	Null	Varchar2	Yes	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_ login	Null	Number	No	No
name	Null	Varchar2	Yes	No
price_formula_id	Null	Number	No	No
start_date_active	Null	Date	No	No
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	Yes	No

attribute1-15
Default Value: FND_API.G_MISS_CHAR

context
Default Value: FND_API.G_MISS_CHAR

created_by
Default Value: FND_API.G_MISS_NUM

creation_date
Default Value: FND_API.G_MISS_DATE

description
Default Value: FND_API.G_MISS_CHAR

end_date_active
Default Value: FND_API.G_MISS_DATE

formula
Default Value: FND_API.G_MISS_CHAR

last_updated_by
Default Value: FND_API.G_MISS_NUM

last_update_date
Default Value: FND_API.G_MISS_DATE

last_update_login
Default Value: FND_API.G_MISS_NUM

name
Default Value: FND_API.G_MISS_CHAR

price_formula_id
Default Value:Comes from the sequence QP_PRICE_FORMULAS_B_S

start_date_active
Default Value: FND_API.G_MISS_DATE

step_number
Default Value: FND_API.G_MISS_NUM

retun_status
Default Value: FND_API.G_MISS_CHAR

db_flag
Default Value: FND_API.G_MISS_CHAR

operation
Default Value: FND_API.G_MISS_CHAR

FORMULA_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–59 FORMULA_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Formula_Rec_Type	Null	Record	No	No

FORMULA_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–60 FORMULA_VAL_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
price_formula	Null	Number	No	No

price formula
Default Value: FND_API.G_MISS_CHAR

FORMULA_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–61 FORMULA_LINES_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Formula_Val_Rec_Type	Null	Record	No	No

FORMULA_LINES_REC_TYPE

The following table shows the parameters for this structure.

Table 3–62 FORMULA_LINES_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No

Table 3–62 FORMULA_LINES_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No
context	Null	Varchar2	No	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
end_date_active	Null	Date	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
numeric_constant	Null	Number	Yes[1]	No
price_formula_id	Null	Number	No	No
price_formula_line_id	Null	Number	No	No
formula_line_type_code	Null	Varchar2	Yes	No
price_list_line_id	Null	Number	Yes[2]	No
price_modifier_list_id	Null	Number	Yes[3]	No
pricing_attribute	Null	Varchar2	Yes[4]	No

Table 3–62 FORMULA_LINES_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
pricing_attribute_context	Null	Varchar2	Yes[5]	No
start_date_active	Null	Date	No	No
step_number	Null	number	Yes	No
return_status	Null	Varchar2	No	No
reqd_flag	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	Yes	No

The following table describes notations listed in the preceding table:

Table 3–63 Notations

Note	Description
1	Conditionally Required when formula_line_type_code is 'NUM'
2	Conditionally Required when formula_line_type_code is 'PLL'
3	Conditionally Required when formula_line_type_code is 'ML'
4	Conditionally Required when formula_line_type_code is 'PRA'
5	Conditionally Required when formula_line_type_code is 'PRA'

attribute1-15
Default Value: FND_API.G_MISS_CHAR

context
Default Value: FND_API.G_MISS_CHAR

created_by
Default Value: FND_API.G_MISS_NUM

creation_date
Default Value: FND_API.G_MISS_DATE

end_date_active
Default Value: FND_API.G_MISS_DATE

last_updated_by
Default Value: FND_API.G_MISS_NUM

last_update_date
Default Value: FND_API.G_MISS_DATE

last_update_login
Default Value: FND_API.G_MISS_NUM

numeric_constant
Default Value: FND_API.G_MISS_NUM

price_formula_id
Default Value: FND_API.G_MISS_NUM

price_formula_line_id
Default Value: Comes for the sequence QP_PRICE_FORMULA_LINES_S

formula_line_type_code
Default Value: FND_API.G_MISS_CHAR

price_list_line_id
Default Value: FND_API.G_MISS_NUM

price_modifier_list_id
Default Value: FND_API.G_MISS_NUM

pricing_attribute
Default Value: FND_API.G_MISS_CHAR

pricing_attribute_context
Default Value: FND_API.G_MISS_CHAR

start_date_active
Default Value: FND_API.G_MISS_DATE

step_number
Default Value: FND_API.G_MISS_NUM

reqd_flag
Default Value: FND_API.G_MISS_CHAR

retun_status
Default Value: FND_API.G_MISS_CHAR

db_flag
Default Value: FND_API.G_MISS_CHAR

operation
Default Value: FND_API.G_MISS_CHAR

FORMULA_LINES_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–64 FORMULA_LINES_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Formula_Lines_Rec_ Type	Null	Record	No	No

FORMULA_LINES_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–65 FORMULA_LINES_VAL_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
price_formula	Null	Varchar2	No	No
price_formula_line	Null	Varchar2	No	No
price_formula_line_type	Null	Varchar2	No	No
price_list_line	Null	Varchar2	No	No

Table 3–65 FORMULA_LINES_VAL_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
price_modifier_list	Null	Varchar2	No	No

price_formula
Default Value: FND_API.G_MISS_CHAR

price_formula_line
Default Value: FND_API.G_MISS_CHAR

price_formula_line_type
Default Value: FND_API.G_MISS_CHAR

price_list_line
Default Value: FND_API.G_MISS_CHAR

price_modifier_list
Default Value: FND_API.G_MISS_CHAR

FORMULA_LINES_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–66 FORMULA_LINES_VAL_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Formula_Lines_Val_ Rec_ Type	Null	Record	No	No

Validation of Business Object for Pricing Formulas API

Standard Validation

Oracle Advanced Pricing validates all required columns in the Business Object for Pricing Formulas API. For more information, see: *Oracle Pricing Technical Reference Manual*.

Other Validation

None

Error Handling

If any validation fails, the API will return error status to the calling module. The Business Object for Pricing Formulas API processes the rows and reports the values in the following table for every record.

Table 3–67 Error Handling

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	null
Failure	4	actual error message

Example of Pricing Formulas API

The following code can also be found in file QPPFXMP1.sql in $QP_TOP/patch/115/sql directory:

```
--set serveroutput on
/*************************************************************************
This sample script inserts a Pricing Formula with seven different pricing
formula lines to demonstrate the six formula line types supported in Advanced
Pricing formulas:

* Price List Line (PLL)
* Function (FUNC)
* List Price(LP)
* Numeric Constant (NUM)
* Pricing Attribute (PRA)
* Factor List(ML)
* Modifier Value (MV)

Oracle Basic Pricing supports three formula line types:
```

```
* Pricing Attribute (PRA)
* Numeric Constant (NUM)
* Factor List (ML)
```

1. The following code can also be found in file QPPFXMP1.sql in $QP_TOP/patch/115/sql directory

```
--set serveroutput on
/*************************************************************************
```

A pricing formula header record and seven price formula lines are created. For the formula line of type *Factor List*, the list_header_id of an existing Factor List is used in this sample script.

This script must be modified by the user so that the following column is populated with a valid list_header_id of an existing Factor List:

```
gpr_formula_lines_tbl(K).price_modifier_list_id
```

and the following column is populated with a valid list_line_id of an existing Price List Line from the instance where this script is run:

```
gpr_formula_lines_tbl(K).price_list_line_id
```

For more information, see: *Oracle Advanced Pricing User's Guide*, Seed Data.

```
*************************************************************************/
declare

gpr_return_status varchar2(1) := NULL;
gpr_msg_count number := 0;
gpr_msg_data varchar2(2000);
gpr_formula_rec     QP_PRICE_FORMULA_PUB.Formula_Rec_Type;
gpr_formula_val_rec QP_PRICE_FORMULA_PUB.Formula_Val_Rec_Type;
gpr_formula_lines_tbl     QP_PRICE_FORMULA_PUB.Formula_Lines_Tbl_Type;
gpr_formula_lines_val_tbl QP_PRICE_FORMULA_PUB.Formula_Lines_Val_Tbl_Type;
ppr_formula_rec     QP_PRICE_FORMULA_PUB.Formula_Rec_Type;
ppr_formula_val_rec QP_PRICE_FORMULA_PUB.Formula_Val_Rec_Type;
ppr_formula_lines_tbl     QP_PRICE_FORMULA_PUB.Formula_Lines_Tbl_Type;
ppr_formula_lines_val_tbl QP_PRICE_FORMULA_PUB.Formula_Lines_Val_Tbl_Type;

K number := 1;

begin

/* Set the price_formula_id to g_miss_num to
```

```
Create the Price Formula Record(Header)*/
    gpr_formula_rec.price_formula_id := FND_API.G_MISS_NUM;
    gpr_formula_rec.name := 'Sample1-PF 1025-1';
    gpr_formula_rec.description := 'Sample Pricing Formula';
    gpr_formula_rec.formula := 'SQRT(1)*2-NVL(3,4)/5+6';

--Any valid Mathematical Expression including built-in database functions.
--Every operand must correspond to a step_number in a price formula line.

    gpr_formula_rec.operation := QP_GLOBALS.G_OPR_CREATE;

    /* Create price formula line 1 of type 'List Price'(LP) */
    K := 1;

    gpr_formula_lines_tbl(K).price_formula_id := FND_API.G_MISS_NUM;
    gpr_formula_lines_tbl(K).price_formula_line_id
:= FND_API.G_MISS_NUM;

    gpr_formula_lines_tbl(K).formula_line_type_code := 'LP'
    gpr_formula_lines_tbl(K).step_number := 1;
    gpr_formula_lines_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;

    /* Create price formula line 2 of type 'Price List Line'(PLL) */
    K := K + 1;
    gpr_formula_lines_tbl(K).price_formula_id := FND_API.G_MISS_NUM;
    gpr_formula_lines_tbl(K).price_formula_line_id

:= FND_API.G_MISS_NUM;

    gpr_formula_lines_tbl(K).formula_line_type_code := 'PLL';
    gpr_formula_lines_tbl(K).step_number := 2;
    gpr_formula_lines_tbl(K).price_list_line_id := 293195;

-- Corresponds to the list_line_id of the item 'dw01' on the PriceList
-- 'Testing 1023'.
    gpr_formula_lines_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;

    /* Create price formula line 3 of type 'Pricing Attribute'(PRA) */
    K := K + 1;
    gpr_formula_lines_tbl(K).price_formula_id := FND_API.G_MISS_NUM;
    gpr_formula_lines_tbl(K).price_formula_line_id

:= FND_API.G_MISS_NUM;

    gpr_formula_lines_tbl(K).formula_line_type_code := 'PRA';
```

```
    gpr_formula_lines_tbl(K).step_number := 3;
    gpr_formula_lines_tbl(K).pricing_attribute_context

:= 'PRICING ATTRIBUTE';

    gpr_formula_lines_tbl(K).pricing_attribute := 'PRICING_ATTRIBUTE12';

-- Corresponds to the Pricing Attribute 'Insurance Cost'

    gpr_formula_lines_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;
    /* Create price formula line 4 of type 'Numeric Constant'(NUM) */
    K := K + 1;

    gpr_formula_lines_tbl(K).price_formula_id := FND_API.G_MISS_NUM;
    gpr_formula_lines_tbl(K).price_formula_line_id

:= FND_API.G_MISS_NUM;

    gpr_formula_lines_tbl(K).formula_line_type_code := 'NUM';
    gpr_formula_lines_tbl(K).step_number := 4;
    gpr_formula_lines_tbl(K).numeric_constant := 1000;
    gpr_formula_lines_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;

    /* Create price formula line 5 of type 'Function'(FUNC) */

-- User must customize the QP_CUSTOM.Get_Custom_Price function
-- to return a numeric value and also set the profile option
-- 'QP: Get Custom Price Customized' to 'Yes' at the Site Level to
-- successfully use this formula line type (FUNC) in their formulas.

    K := K + 1;
    gpr_formula_lines_tbl(K).price_formula_id := FND_API.G_MISS_NUM;
    gpr_formula_lines_tbl(K).price_formula_line_id

:= FND_API.G_MISS_NUM;

    gpr_formula_lines_tbl(K).formula_line_type_code := 'FUNC';
    gpr_formula_lines_tbl(K).step_number := 5;
    gpr_formula_lines_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;

    /* Create price formula line 6 of type 'Factor List'(ML) */

    K := K + 1;

    gpr_formula_lines_tbl(K).price_formula_id := FND_API.G_MISS_NUM;
```

```
    gpr_formula_lines_tbl(K).price_formula_line_id

:= FND_API.G_MISS_NUM;

    gpr_formula_lines_tbl(K).formula_line_type_code := 'ML';
    gpr_formula_lines_tbl(K).step_number := 6;
    gpr_formula_lines_tbl(K).price_modifier_list_id := 50174;

-- Corresponds to the list_header_id of an existing Factor List
-- 'ABC'

    gpr_formula_lines_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;

    /* Create price formula line 7 of type 'Modifier Value'(MV) */
    K := K + 1;

    gpr_formula_lines_tbl(K).price_formula_id := FND_API.G_MISS_NUM;
    gpr_formula_lines_tbl(K).price_formula_line_id:= FND_API.G_MISS_NUM;
    gpr_formula_lines_tbl(K).formula_line_type_code := 'MV'
    gpr_formula_lines_tbl(K).step_number := 7;
    gpr_formula_lines_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;
--dbms_output.put_line('before process price formula ');
```

QP_PRICE_FORMULA_PUB.Process_Price_Formula

```
(   p_api_version_number => 1
,   p_init_msg_list  => FND_API.G_FALSE
,   p_return_values  => FND_API.G_FALSE
,   p_commit  => FND_API.G_FALSE
,   x_return_status  => gpr_return_status
,   x_msg_count  => gpr_msg_count
,   x_msg_data   => gpr_msg_data
,   p_FORMULA_rec  => gpr_formula_rec
,   p_FORMULA_LINES_tbl  => gpr_formula_lines_tbl
,   x_FORMULA_rec  => ppr_formula_rec
,   x_FORMULA_val_rec => ppr_formula_val_rec
,   x_FORMULA_LINES_tbl => ppr_formula_lines_tbl
,   x_FORMULA_LINES_val_tbl => ppr_formula_lines_val_tbl
);

        IF gpr_return_status <> FND_API.G_RET_STS_SUCCESS THEN

    RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

END IF;
```

```
    --dbms_output.put_line('after process price formula ');

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

        gpr_return_status := FND_API.G_RET_STS_ERROR;

    --Get message count and data

    --dbms_output.put_line('err msg 1 is : ' || gpr_msg_data);

Rollback;

WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

    gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

    --dbms_output.put_line(' msg count 2 is : ' || gpr_msg_count);

    for k in 1 .. gpr_msg_count loop

    gpr_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

);
/*

    oe_msg_pub.Count_And_Get

(   p_countgpr_msg_count

,   p_data => gpr_msg_data

);

*/

    --Get message count and data
    --dbms_output.put_line('err msg ' || k ||'is:  ' || gpr_msg_data);
    null;

end loop;
```

```
Rollback;

WHEN OTHERS THEN

    gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

    --Get message count and data
    --dbms_output.put_line('err msg 3 is : ' || gpr_msg_data);

    Rollback;

end;
/
commit;
exit;
```

2. The following code can also be found in file QPPFXMP2.sql in $QP_TOP/patch/115/sql directory

```
--set serveroutput on
/*************************************************************************
Sample script which inserts a Pricing Formula and one price formula line of type
Factor List (ML) A new Factor List is created in this sample script.
Factor Lists can be created/updated only in the Pricing Formulas window in the
Factors window if using the application. A factor list originally created in one
formula can be used in other formulas as well. Any modification to a factor
list's factors is reflected in all formulas using the factor list. However,
while using APIs to create Factor Lists, we use the Modifier API. A factor list,
its factors and pricing attributes use the same tables as a Modifier List,
Modifiers and Pricing Attributes.
A factor list is a modifier list with a list_type_code of PML and a factor is a
Modifier with a list_line_type_code of PMR:
A pricing formula header record and one price formula line of type factor list
ML are created. Corresponding to the formula line of type factor list, 1 Factor
List record (Modifier List) and one factor record (Modifier) are created. In
this script, for the factor record, a base pricing attribute record and an
associated pricing attribute record are created. The Modifiers API is used to
create the factor list, factor and their pricing attributes.
For more information on flexfields and seed data, see Oracle Advanced Pricing
User's Guide.

*************************************************************************/

declare
```

```
gpr_return_status varchar2(1) := NULL;
gpr_msg_count number := 0;
gpr_msg_data varchar2(2000);
gpr_formula_rec     QP_PRICE_FORMULA_PUB.Formula_Rec_Type;
gpr_formula_lines_tbl     QP_PRICE_FORMULA_PUB.Formula_Lines_Tbl_Type;
ppr_formula_rec     QP_PRICE_FORMULA_PUB.Formula_Rec_Type;
ppr_formula_val_rec QP_PRICE_FORMULA_PUB.Formula_Val_Rec_Type;
ppr_formula_lines_tbl     QP_PRICE_FORMULA_PUB.Formula_Lines_Tbl_Type;
ppr_formula_lines_val_tbl QP_PRICE_FORMULA_PUB.Formula_Lines_Val_Tbl_Type;

gpr_modifier_list_rec QP_MODIFIERS_PUB.Modifier_List_Rec_Type;
gpr_modifiers_tbl     QP_MODIFIERS_PUB.Modifiers_Tbl_Type;
gpr_pricing_attr_tbl  QP_MODIFIERS_PUB.Pricing_Attr_Tbl_Type;

ppr_modifier_list_rec     QP_MODIFIERS_PUB.Modifier_List_Rec_Type;
ppr_modifier_list_val_rec QP_MODIFIERS_PUB.Modifier_List_Val_Rec_Type;
ppr_modifiers_tbl         QP_MODIFIERS_PUB.Modifiers_Tbl_Type;
ppr_modifiers_val_tbl     QP_MODIFIERS_PUB.Modifiers_Val_Tbl_Type;
ppr_pricing_attr_tbl      QP_MODIFIERS_PUB.Pricing_Attr_Tbl_Type;
ppr_pricing_attr_val_tbl  QP_MODIFIERS_PUB.Pricing_Attr_Val_Tbl_Type;
ppr_qualifiers_tbl        QP_QUALIFIER_RULES_PUB.Qualifiers_Tbl_Type;
ppr_qualifiers_val_tbl    QP_QUALIFIER_RULES_PUB.Qualifiers_Val_Tbl_Type;

K number := 1;
J number := 1;
I number := 1;

begin

    /* Set the price_formula_id to g_miss_num to

Create the Price Formula Record(Header)*/
gpr_formula_rec.price_formula_id := FND_API.G_MISS_NUM;
gpr_formula_rec.name := 'Sample2-PF 1025-6';
gpr_formula_rec.description := 'Sample Pricing Formula';
gpr_formula_rec.formula := '1';

    --Any valid Mathematical Expression including built-in database functions.
    --Every operand must correspond to a step_number in a price formula line.

gpr_formula_rec.operation := QP_GLOBALS.G_OPR_CREATE;

  /* Prior to creating the formula line of type 'Factor List', we first create a
Factor List, Factors and pricing attributes using the Modifiers API.
```

```
This is because the list_header_id of the Factor_List(Modifier_List) must be
populated in the price_modifier_list_id column of the Formula Line Record  which
is a mandatory column when formula_line_type_code is 'ML'. */

    /* Create Factor List (Modifier List) record */

gpr_modifier_list_rec.list_header_id := FND_API.G_MISS_NUM;
gpr_modifier_list_rec.name := 'SAMPLE FACTOR LIST 6';
gpr_modifier_list_rec.currency_code := 'USD';
gpr_modifier_list_rec.list_type_code := 'PML';

--For Factor Lists the Modifier List Type is 'PML'.

gpr_modifier_list_rec.operation := QP_GLOBALS.G_OPR_CREATE;

      /* Create Factor (Modifier) record 1 */
J := 1;

gpr_modifiers_tbl(J).list_header_id := FND_API.G_MISS_NUM;
gpr_modifiers_tbl(J).list_line_id := FND_API.G_MISS_NUM;
gpr_modifiers_tbl(J).list_line_type_code := 'PMR';
--For Factors the Modifier Type is 'PMR'.
gpr_modifiers_tbl(J).operand := 0.8;
--Corresponds to the Adjustment Factor
gpr_modifiers_tbl(J).arithmetic_operator := 'UNIT_PRICE';
gpr_modifiers_tbl(J).modifier_level_code := 'NULL';
gpr_modifiers_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

--Any number of Pricing Attributes may be created for a Factor. But
--only the first pricing attribute record is considered as the Base
--Pricing Attribute and all subsequent Pricing Attributes for the
--same Factor will be considered Associated Pricing Attributes. All
--pricing attributes for a factor are treated as 'AND' conditions.
--Factors are treated as 'OR' conditions. User does not have to make
--any special changes or considerations as far as setup goes.

    /* Create Pricing Attribute 1 (Base Pricing Attribute) for Factor 1.*/

I := 1;

gpr_pricing_attr_tbl(I).list_line_id := FND_API.G_MISS_NUM;
gpr_pricing_attr_tbl(I).pricing_attribute_id := FND_API.G_MISS_NUM;
gpr_pricing_attr_tbl(I).modifiers_index := 1;
--Corresponds to the Factor Number. In this case it is 1.
gpr_pricing_attr_tbl(I).pricing_attribute_context := 'PRICING ATTRIBUTE';
```

```
gpr_pricing_attr_tbl(I).pricing_attribute := 'PRICING ATTRIBUTE12';
--Corresponds to the Pricing Attribute 'Insurance Cost'
gpr_pricing_attr_tbl(I).pricing_attr_value_from := '100';
gpr_pricing_attr_tbl(I).pricing_attr_value_to := '120';
gpr_pricing_attr_tbl(I).comparison_operator_code := 'BETWEEN' ;
gpr_pricing_attr_tbl(I).operation := QP_GLOBALS.G_OPR_CREATE;

    /* Create Pricing Attribute 2(Associated Pricing Attribute)for Factor 1.*/
    I := I + 1;

gpr_pricing_attr_tbl(I).list_line_id := FND_API.G_MISS_NUM;
gpr_pricing_attr_tbl(I).pricing_attribute_id := FND_API.G_MISS_NUM;
gpr_pricing_attr_tbl(I).modifiers_index := 1;
--Corresponds to the Factor Number. In this case it is 1.
gpr_pricing_attr_tbl(I).pricing_attribute_context := 'PRICING ATTRIBUTE';
gpr_pricing_attr_tbl(I).pricing_attribute := 'PRICING ATTRIBUTE16';
--Corresponds to the Pricing Attribute 'Freight Cost'
gpr_pricing_attr_tbl(I).pricing_attr_value_from := '11';
gpr_pricing_attr_tbl(I).comparison_operator_code := '=' ;
gpr_pricing_attr_tbl(I).operation := QP_GLOBALS.G_OPR_CREATE;
```

QP_MODIFIERS_PUB.Process_Modifiers

```
(   p_api_version_number            => 1
    ,   p_init_msg_list=> FND_API.G_FALSE
    ,   p_return_values=> FND_API.G_FALSE
    ,   p_commit=> FND_API.G_FALSE
    ,   x_return_status=> gpr_return_status
    ,   x_msg_count=> gpr_msg_count
    ,   x_msg_data=> gpr_msg_data
    ,   p_modifier_list_rec=> gpr_modifier_list_rec
    ,   p_modifiers_tbl=> gpr_modifiers_tbl
    ,   p_pricing_attr_tbl=> gpr_pricing_attr_tbl
    ,   x_MODIFIER_LIST_rec=> ppr_modifier_list_rec
    ,   x_MODIFIER_LIST_val_rec=> ppr_modifier_list_val_rec
    ,   x_MODIFIERS_tbl=> ppr_modifiers_tbl
    ,   x_MODIFIERS_val_tbl=> ppr_modifiers_val_tbl
    ,   x_QUALIFIERS_tbl=> ppr_qualifiers_tbl
    ,   x_QUALIFIERS_val_tbl=> ppr_qualifiers_val_tbl
    ,   x_PRICING_ATTR_tbl=> ppr_pricing_attr_tbl
    ,   x_PRICING_ATTR_val_tbl=> ppr_pricing_attr_val_tbl
    );

    IF gpr_return_status <> FND_API.G_RET_STS_SUCCESS THEN
```

```
        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

/* Create price formula line 1 of type 'Factor List'(ML) */

    K := 1;

    gpr_formula_lines_tbl(K).price_formula_id := FND_API.G_MISS_NUM;
    gpr_formula_lines_tbl(K).price_formula_line_id
    gpr_formula_lines_tbl(K).formula_line_type_code := 'ML';
    gpr_formula_lines_tbl(K).step_number := 1;
    gpr_formula_lines_tbl(K).price_modifier_list_id
:= ppr_modifier_list_rec.list_header_id;
    --Corresponds to the list_header_id of the new Factor List
    --created above.
    gpr_formula_lines_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;

    QP_PRICE_FORMULA_PUB.Process_Price_Formula

(   p_api_version_number=> 1
,   p_init_msg_list=> FND_API.G_FALSE
,   p_return_values=> FND_API.G_FALSE
,   p_commit=> FND_API.G_FALSE
,   x_return_status=> gpr_return_status
,   x_msg_count=> gpr_msg_count
,   x_msg_data=> gpr_msg_data
,   p_FORMULA_rec=> gpr_formula_rec
,   p_FORMULA_LINES_tbl=> gpr_formula_lines_tbl
,   x_FORMULA_rec=> ppr_formula_rec
,   x_FORMULA_val_rec=> ppr_formula_val_rec
,   x_FORMULA_LINES_tbl=> ppr_formula_lines_tbl
,   x_FORMULA_LINES_val_tbl=> ppr_formula_lines_val_tbl
);
    IF gpr_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN
```

```
    gpr_return_status := FND_API.G_RET_STS_ERROR;
    --Get message count and data
    --dbms_output.put_line('err msg 1 is : ' || gpr_msg_data);

Rollback;

    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
--dbms_output.put_line(' msg count 2 is : ' || gpr_msg_count);

    for k in 1 .. gpr_msg_count loop
    gpr_msg_data := oe_msg_pub.get( p_msg_index => k,
p_encoded => 'F'
);
    /*

oe_msg_pub.Count_And_Get

(   p_count=> gpr_msg_count
,   p_data=> gpr_msg_data
);

*/

    --Get message count and data
    --dbms_output.put_line('err msg ' || k ||'is:  ' || gpr_msg_data);

null;
end loop;

Rollback;

    WHEN OTHERS THEN

        gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

--Get message count and data
--dbms_output.put_line('err msg 3 is : ' || gpr_msg_data);

Rollback;
end;
/
commit;
exit;
```

See

Oracle Pricing Technical Reference Manual

Business Object for Pricing Limits Application Program Interface

This section explains how to use the Business Object for Pricing Limits API and how it functions in Oracle Advanced Pricing. The Business Object for Pricing Limits package consists of entities to support the Limits window.

Functional Overview

The Limits window is based on the following APIs:

The package QP_Limits_PUB contains the following public record type and table of records definitions:

- Limits_Rec_Type: A record type corresponding to the columns in the Pricing Limits view (QP_LIMITS).
- Limits_Tbl_Type
- Limits_Val_Rec_Type: A record type used to store values corresponding to IDs in the Limits record.
- Limits_Val_Tbl_Type
- Limit_Attrs_Rec_Type: A record type corresponding to the columns in the Limit Attributes. View (QP_LIMIT_ATTRIBUTES)
- Limit_Attrs_Tbl_Type
- Limit_Attrs_Val_Rec_Type: A record type used to store values corresponding to IDs in the Limits Attributes record.
- Limit_Attrs_Val_Tbl_Type
- Limit_Balances_Rec_Type : A record type corresponding to the columns in the Limit Balances. View (QP_LIMIT_BALANCES)
- Limit_Balances_Tbl_Type
- Limit_Balances_Val_Rec_Type : A record type used to store values corresponding to IDs in the Limits Balances record.
- Limit_Balances_Val_Tbl_Type

Setting Up and Parameter Descriptions

The following chart describes all parameters used by the public API QP_LIMITS_PUB.PROCESS_LIMITS. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

PROCEDURE Process_Limits

Table 3–68 QP_LIMITS_PUB.PROCESS_LIMITS Parameters

Parameter	Usage	Type	Default
p_api_version_number	IN	Number	
p_init_msg_list	IN	Varchar2	FND_API.G_FALSE
p_return_values	IN	Varchar2	FND_API.G_FALSE
p_commit	IN	Varchar2	FND_API.G_FALSE
x_return_status	OUT	Varchar2	
x_msg_count	OUT	Number	
x_msg_data	OUT	Varchar2	
p_LIMITS_rec	IN	Limits_Rec_Type	G_MISS_LIMITS_REC
p_LIMITS_val_rec	IN	Limits_Val_Rec_Type	G_MISS_LIMITS_VAL_REC
p_LIMIT_ATTRS_tbl	IN	Limit_Attrs_Tbl_Type	G_MISS_LIMIT_ATTRS_TBL
p_LIMIT_ATTRS_val_tbl	IN	Limit_Attrs_Val_Tbl_Type	G_MISS_LIMIT_ATTRS_VAL_TBL
p_LIMIT_BALANCES_tbl	IN	Limit_Balances_Tbl_Type	G_MISS_LIMIT_BALANCES_TBL
p_LIMIT_BALANCES_val_tbl	IN	Limit_Balances_Val_Tbl_Type	G_MISS_LIMIT_BALANCES_VAL_TBL
x_LIMITS_rec	OUT	Limits_Rec_Type	
x_LIMITS_val_rec	OUT	Limits_Val_Rec_Type	
x_LIMIT_ATTRS_tbl	OUT	Limit_Attrs_Tbl_Type	
x_LIMIT_ATTRS_val_tbl	OUT	Limit_Attrs_Val_Tbl_Type	

Table 3–68 QP_LIMITS_PUB.PROCESS_LIMITS Parameters

Parameter	Usage	Type	Default
x_LIMIT_BALANCES_tbl	OUT	Limit_Balances_Tbl_Type	
x_LIMIT_BALANCES_val_tbl	OUT	Limit_Balances_Val_Tbl_Type	

PROCEDURE Lock_Limits

The following chart describes all parameters used by the public API QP_LIMITS_PUB.LOCK_LIMITS. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 3–69 QP_LIMITS_PUB.LOCK_LIMITS Parameters

Parameter	Usage	Type	Default
p_api_version_number	IN	Number	
p_init_msg_list	IN	Varchar2	FND_API.G_FALSE
p_return_values	IN	Varchar2	FND_API.G_FALSE
x_return_status	OUT	Varchar2	
x_msg_count	OUT	Number	
x_msg_data	OUT	Varchar2	
p_LIMITS_rec	IN	Limits_Rec_Type	G_MISS_LIMITS_REC
p_LIMITS_val_rec	IN	Limits_Val_Rec_Type	G_MISS_LIMITS_VAL_REC
p_LIMIT_ATTRS_tbl	IN	Limit_Attrs_Tbl_Type	G_MISS_LIMIT_ATTRS_TBL
p_LIMIT_ATTRS_val_tbl	IN	Limit_Attrs_Val_Tbl_Type	G_MISS_LIMIT_ATTRS_VAL_TBL
p_LIMIT_BALANCES_tbl	IN	Limit_Balances_Tbl_Type	G_MISS_LIMIT_BALANCES_TBL
p_LIMIT_BALANCES_val_tbl	IN	Limit_Balances_Val_Tbl_Type	G_MISS_LIMIT_BALANCES_VAL_TBL
x_LIMITS_rec	OUT	Limits_Rec_Type	
x_LIMITS_val_rec	OUT	Limits_Val_Rec_Type	
x_LIMIT_ATTRS_tbl	OUT	Limit_Attrs_Tbl_Type	

Table 3–69 QP_LIMITS_PUB.LOCK_LIMITS Parameters

Parameter	Usage	Type	Default
x_LIMIT_ATTRS_val_tbl	OUT	Limit_Attrs_Val_Tbl_ Type	
x_LIMIT_BALANCES_tbl	OUT	Limit_Balances_Tbl_Type	
x_LIMIT_BALANCES_ val_tbl	OUT	Limit_Balances_Val_Tbl_ Type	

PROCEDURE Get_Limits

The following chart describes all parameters used by the public API QP_LIMITS_ PUB.GET_LIMITS. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 3–70 QP_LIMITS_PUB.GET_LIMITS Parameters

Parameter	Usage	Type	Req	Default
p_api_version_number	IN	Number	Yes	
p_init_msg_list	IN	Varchar2	No	FND_API.G_FALSE
p_return_values	IN	Varchar2	No	FND_API.G_FALSE
x_return_status	OUT	Varchar2	No	
x_msg_count	OUT	Number	No	
x_msg_data	OUT	Varchar2	No	
p_limit_id	IN	Number	No	FND_API.G_MISS_ NUM
p_limit	IN	Varchar2	No	FND_API.G_MISS_ CHAR
x_LIMITS_rec	OUT	Limits_Rec_Type	No	
x_LIMITS_val_rec	OUT	Limits_Val_Rec_Type	No	
x_LIMIT_ATTRS_tbl	OUT	Limit_Attrs_Tbl_Type	No	
x_LIMIT_ATTRS_val_tbl	OUT	Limit_Attrs_Val_Tbl_ Type	No	
x_LIMIT_BALANCES_tbl	OUT	Limit_Balances_Tbl_ Type	No	

Table 3–70 QP_LIMITS_PUB.GET_LIMITS Parameters

Parameter	Usage	Type	Req	Default
x_LIMIT_BALANCES_ val_tbl	OUT	Limit_Balances_Val_ Tbl_Type	No	

PL/SQL Record Structures

For each column of the PL/SQL record structure, the following information has been documented:

- *Datatype*: data type for this field
- *Req*: *X* if required at entry, *Blank* if Optional
- *Drv*: For internal use, users cannot update these fields
- *Default*: Defaulted value for this field

Limits_Rec_Type

For column descriptions, please refer to the Oracle Pricing TRM for the table QP_ LIMITS.

The Derived value for the following parameters is Null.

Table 3–71 QP_LIMITS

Parameter	Type	Req	Default
attribute1	Varchar2(240)	No	FND_API.G_MISS_CHAR
attribute2	Varchar2(240)	No	FND_API.G_MISS_CHAR
attribute3	Varchar2(240)	No	FND_API.G_MISS_CHAR
attribute4	Varchar2(240)	No	FND_API.G_MISS_CHAR
attribute5	Varchar2(240)	No	FND_API.G_MISS_CHAR
attribute6	Varchar2(240)	No	FND_API.G_MISS_CHAR
attribute7	Varchar2(240)	No	FND_API.G_MISS_CHAR
attribute8	Varchar2(240)	No	FND_API.G_MISS_CHAR
attribute9	Varchar2(240)	No	FND_API.G_MISS_CHAR
attribute10	Varchar2(240)	No	FND_API.G_MISS_CHAR
attribute11	Varchar2(240)	No	FND_API.G_MISS_CHAR

Table 3–71 QP_LIMITS

Parameter	Type	Req	Default
attribute12	Varchar2(240)	No	FND_API.G_MISS_CHAR
attribute13	Varchar2(240)	No	FND_API.G_MISS_CHAR
attribute14	Varchar2(240)	No	FND_API.G_MISS_CHAR
attribute15	Varchar2(240)	No	FND_API.G_MISS_CHAR
Amount	Number	Yes	FND_API.G_MISS_NUM
Basis	Varchar2(30)	Yes	FND_API.G_MISS_CHAR
Context	Varchar2(30)	No	FND_API.G_MISS_CHAR
created_by	Number	Yes	FND_API.G_MISS_CHAR
creation_date	Date	Yes	FND_API.G_MISS_DATE
last_updated_by	Number	Yes	FND_API.G_MISS_NUM
last_update_date	Date	Yes	FND_API.G_MISS_DATE
last_update_login	Number	No	FND_API.G_MISS_NUM
limit_exceed_action_code	Varchar2(30)	Yes	FND_API.G_MISS_CHAR
limit_id	Number	Yes	FND_API.G_MISS_NUM
limit_level_code	Varchar2(30)	Yes	FND_API.G_MISS_CHAR
limit_number	Number	Yes	FND_API.G_MISS_NUM
list_header_id	Number	Yes	FND_API.G_MISS_NUM
list_line_id	Number	No	FND_API.G_MISS_NUM
limit_hold_flag	Varchar2(1)	Yes	FND_API.G_MISS_CHAR
multival_attr1_type	Varchar2(30)	No	FND_API.G_MISS_CHAR
multival_attr1_context	Varchar2(30)	No	FND_API.G_MISS_CHAR
multival_attribute1	Varchar2(30)	No	FND_API.G_MISS_CHAR
multival_attr1_datatype	Varchar2(10)	No	FND_API.G_MISS_CHAR
multival_attr2_type	Varchar2(30)	No	FND_API.G_MISS_CHAR
multival_attr2_context	Varchar2(30)	No	FND_API.G_MISS_CHAR
multival_attribute2	Varchar2(30)	No	FND_API.G_MISS_CHAR
multival_attr2_datatype	Varchar2(10)	No	FND_API.G_MISS_CHAR

Table 3–71 QP_LIMITS

Parameter	Type	Req	Default
organization_flag	Varchar2(1)	Yes	FND_API.G_MISS_CHAR
program_application_id	Number	No	FND_API.G_MISS_NUM
program_id	Number	No	FND_API.G_MISS_NUM
program_update_date	Date	No	FND_API.G_MISS_DATE
request_id	Number	No	FND_API.G_MISS_NUM
return_status	Varchar2(1)	No	FND_API.G_MISS_CHAR
db_flag	Varchar2(1)	No	FND_API.G_MISS_CHAR
operation	Varchar2(30)	No	FND_API.G_MISS_CHAR

Limits_Tbl_Type

Table 3–72 Limits_Tbl_Type

Parameter	Type	Req	Drv	Default
Limits_Rec_Type	Record			

Limits_Val_Rec_Type

Table 3–73 Limits_Val_Rec_Type

Parameter	Type	Req	Drv	Default
limit_exceed_action	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
limit	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
limit_level	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
list_header	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
list_line	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
organization	Varchar2(240)	No	No	FND_API.G_MISS_CHAR

Limits_Val_Tbl_Type

Table 3–74 Limits_Val_Tbl_Type

Parameter	Type	Req	Drv	Default
Limits_Val_Rec_Type	Record			

Limit_Attrs_Rec_Type

For column descriptions, please refer to the Oracle Pricing TRM for the table QP_ LIMIT_ATTRIBUTES.

Table 3–75 Limit_Attrs_Rec_Type

Parameter	Type	Req	Drv	Default
attribute1	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute2	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute3	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute4	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute5	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute6	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute7	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute8	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute9	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute10	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute11	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute12	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute13	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute14	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute15	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
comparison_operator_ code	Varchar2(30)	Yes	No	FND_API.G_MISS_CHAR
context	Varchar2(30)	No	No	FND_API.G_MISS_CHAR
created_by	Number	Yes	No	FND_API.G_MISS_CHAR
creation_date	Date	Yes	No	FND_API.G_MISS_DATE

Table 3–75 Limit_Attrs_Rec_Type

Parameter	Type	Req	Drv	Default
last_updated_by	Number	Yes	No	FND_API.G_MISS_NUM
last_update_date	Date	Yes	No	FND_API.G_MISS_DATE
last_update_login	Number	No	No	FND_API.G_MISS_NUM
limit_attribute	Varchar2(30)	Yes	No	FND_API.G_MISS_CHAR
limit_attribute_context	Varchar2(30)	Yes	No	FND_API.G_MISS_CHAR
limit_attribute_id	Number	Yes	No	FND_API.G_MISS_NUM
limit_attribute_type	Varchar2(30)	Yes	No	FND_API.G_MISS_CHAR
limit_attr_datatype	Varchar2(10)	Yes	No	FND_API.G_MISS_CHAR
limit_attr_value	Varchar2(240)	Yes	No	FND_API.G_MISS_CHAR
limit_id	Number	No	No	FND_API.G_MISS_NUM
program_application_id	Number	No	No	FND_API.G_MISS_NUM
program_id	Number	No	No	FND_API.G_MISS_NUM
program_update_date	Date	No	No	FND_API.G_MISS_DATE
request_id	Number	No	No	FND_API.G_MISS_NUM
return_status	Varchar2(1)	No	No	FND_API.G_MISS_CHAR
db_flag	Varchar2(1)	No	No	FND_API.G_MISS_CHAR
operation	Varchar2(30)	No	No	FND_API.G_MISS_CHAR

Limit_Attrs_Tbl_Type

Table 3–76 Limit_Attrs_Tbl_Type

Parameter	Type	Req	Drv	Default
Limit_Attrs_Rec_Type	Record			

Limit_Attrs_Val_Rec_Type

Table 3–77 Limit_Attrs_Val_Rec_Type

Parameter	Type	Req	Default
comparison_operator	Varchar2(240)	No	FND_API.G_MISS_CHAR

Table 3–77 Limit_Attrs_Val_Rec_Type

Parameter	Type	Req	Default
limit_attribute	Varchar2(240)	No	FND_API.G_MISS_CHAR
limit	Varchar2(240)	No	FND_API.G_MISS_CHAR

Limit_Attrs_Val_Tbl_Type

Table 3–78 Limit_Attrs_Val_Tbl_Type

Parameter	Type	Req	Drv	Default
Limit_Attrs_Val_Rec_Type	Record			

Limit_Balances_Rec_Type

For column descriptions, please refer to the Oracle Pricing TRM for the table QP_ LIMIT_BALANCES.

Table 3–79 Limit_Balances_Rec_Type

Parameter	Type	Req	Drv	Default
attribute1	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute2	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute3	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute4	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute5	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute6	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute7	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute8	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute9	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute10	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute11	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute12	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute13	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
attribute14	Varchar2(240)	No	No	FND_API.G_MISS_CHAR

Table 3–79 Limit_Balances_Rec_Type

Parameter	Type	Req	Drv	Default
attribute15	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
available_amount	Number	Yes	No	FND_API.G_MISS_NUM
consumed_amount	Number	Yes	No	FND_API.G_MISS_NUM
context	Varchar2(30)	No	No	FND_API.G_MISS_CHAR
created_by		Yes	No	FND_API.G_MISS_CHAR
creation_date	Date	Yes	No	FND_API.G_MISS_DATE
last_updated_by	Number	Yes	No	FND_API.G_MISS_NUM
last_update_date	Date	Yes	No	FND_API.G_MISS_DATE
last_update_login	Number	No	No	FND_API.G_MISS_NUM
limit_balance_id	Number	Yes	No	FND_API.G_MISS_NUM
limit_id	Number	Yes	No	FND_API.G_MISS_NUM
organization_attr_context	Varchar2(30)	No	No	FND_API.G_MISS_CHAR
organization_attribute	Varchar2(30)	No	No	FND_API.G_MISS_CHAR
organization_attr_value	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
multival_attr1_type	Varchar2(30)	No	No	FND_API.G_MISS_CHAR
multival_attr1_context	Varchar2(30)	No	No	FND_API.G_MISS_CHAR
multival_attribute1	Varchar2(30)	No	No	FND_API.G_MISS_CHAR
multival_attr1_value	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
multival_attr1_datatype	Varchar2(10)	No	No	FND_API.G_MISS_CHAR
multival_attr2_type	Varchar2(30)	No	No	FND_API.G_MISS_CHAR
multival_attr2_context	Varchar2(30)	No	No	FND_API.G_MISS_CHAR
multival_attribute2	Varchar2(30)	No	No	FND_API.G_MISS_CHAR
multival_attr2_value	Varchar2(240)	No	No	FND_API.G_MISS_CHAR
multival_attr2_datatype	Varchar2(10)	No	No	FND_API.G_MISS_CHAR
program_application_id	Number	No	No	FND_API.G_MISS_NUM
program_id	Number	No	No	FND_API.G_MISS_NUM
program_update_date	Date	No	No	FND_API.G_MISS_DATE

Table 3–79 Limit_Balances_Rec_Type

Parameter	Type	Req	Drv	Default
request_id	Number	No	No	FND_API.G_MISS_NUM
reserved_amount	Number	Yes	No	FND_API.G_MISS_NUM
return_status	Varchar2(1)	No	No	FND_API.G_MISS_CHAR
db_flag	Varchar2(1)	No	No	FND_API.G_MISS_CHAR
operation	Varchar2(30)	No	No	FND_API.G_MISS_CHAR

Limit_Balances_Tbl_Type

Table 3–80 Limit_Balances_Tbl_Type

Parameter	Type	Req	Drv	Default
Limit_Balances_Rec_Type	Record			

Limit_Balances_Val_Rec_Type

Table 3–81 Limit_Balances_Val_Rec_Type

Parameter	Type	Req	Drv	Default
limit_balance	Varchar2(240)			FND_API.G_MISS_CHAR
limit	Varchar2(240)			FND_API.G_MISS_CHAR

Limit_Balances_Val_Tbl_Type

Table 3–82 Limit_Balances_Val_Tbl_Type

Parameter	Type	Req	Drv	Default
Limit_Balances_Val_Rec_Type	Record			

Validation of Limits Public API

Standard Validation

Oracle Advanced Pricing validates all required columns in the Limits Public API.For more information, see: *Oracle Pricing Technical Reference Manual*.

Other Validation

None

Error Handling

If any validation fails, the API will return error status to the calling module. The Limits Public API processes the rows and reports the values in the following table for every record.

Table 3–83 Error Handling

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	Null
Failure	4	actual error message

Example of Limits Public API

The following sample code demonstrates Limits Public API.

Example of inserting limits

```
set serverout on
declare
    glmt_return_status varchar2(30);
    glmt_msg_data varchar2(2000);
    glmt_msg_count number := 0;
    glmt_limits_recQP_LIMITS_PUB.Limits_Rec_Type;
    glmt_limits_val_recQP_LIMITS_PUB.Limits_Val_Rec_Type;
    glmt_limit_attrs_tblQP_LIMITS_PUB.Limit_Attrs_Tbl_Type;
    glmt_limit_attrs_val_tblQP_LIMITS_PUB.Limit_Attrs_Val_Tbl_Type;
    glmt_limit_balances_tblQP_LIMITS_PUB.Limit_Balances_Tbl_Type ;
    glmt_limit_balances_val_tblQP_LIMITS_PUB.Limit_Balances_Val_Tbl_Type ;
    plmt_limits_recQP_LIMITS_PUB.Limits_Rec_Type;
    plmt_limits_val_recQP_LIMITS_PUB.Limits_Val_Rec_Type;
    plmt_limit_attrs_tblQP_LIMITS_PUB.Limit_Attrs_Tbl_Type;
    plmt_limit_attrs_val_tblQP_LIMITS_PUB.Limit_Attrs_Val_Tbl_Type;
    plmt_limit_balances_tblQP_LIMITS_PUB.Limit_Balances_Tbl_Type ;
    plmt_limit_balances_val_tblQP_LIMITS_PUB.Limit_Balances_Val_Tbl_Type ;
    i number := 1;
    j number := 1;
begin
    /* Set the limit_id to g_miss_num to create the Limits Record(Header)*/
```

```
    dbms_output.put_line('Initializing the values');

    glmt_limits_rec.limit_id := FND_API.G_MISS_NUM;
    glmt_limits_rec.created_by := FND_API.G_MISS_NUM;
    glmt_limits_rec.last_updated_by := FND_API.G_MISS_NUM;
    glmt_limits_rec.list_header_id := 7700;
    --glmt_limits_rec.list_line_id := 1064;
    glmt_limits_rec.limit_number := 1;
    glmt_limits_rec.basis := 'COST';
    glmt_limits_rec.organization_flag := 'N';
    glmt_limits_rec.limit_level_code := 'TRANSACTION';
    --glmt_limits_rec.limit_exceed_action_code := 'HARD';
    glmt_limits_rec.amount := 1000;
    glmt_limits_rec.LIMIT_HOLD_FLAG := 'Y';
    glmt_limits_rec.MULTIVAL_ATTR1_CONTEXT := FND_API.G_MISS_CHAR;
    glmt_limits_rec.MULTIVAL_ATTR2_CONTEXT := FND_API.G_MISS_CHAR;
    glmt_limits_rec.operation := QP_GLOBALS.g_opr_create;

    i := 1;
    /* Set the limit_balance_id to g_miss_num to create the Limit Balance
    Record(Header)*/
    glmt_limit_balances_tbl(i).limit_balance_id := FND_API.G_MISS_NUM;
    glmt_limit_balances_tbl(i).created_by := FND_API.G_MISS_NUM;
    glmt_limit_balances_tbl(i).last_updated_by := FND_API.G_MISS_NUM;
    glmt_limit_balances_tbl(i).available_amount :=  10000;
    glmt_limit_balances_tbl(i).reserved_amount :=  0;
    glmt_limit_balances_tbl(i).consumed_amount :=  0;
    glmt_limit_balances_tbl(i).operation := QP_GLOBALS.g_opr_create;
    i := i + 1;

    glmt_limit_balances_tbl(i).limit_balance_id := FND_API.G_MISS_NUM;
    glmt_limit_balances_tbl(i).created_by := FND_API.G_MISS_NUM;
    glmt_limit_balances_tbl(i).last_updated_by := FND_API.G_MISS_NUM;
    glmt_limit_balances_tbl(i).available_amount :=  10000;
    glmt_limit_balances_tbl(i).reserved_amount :=  0;
    glmt_limit_balances_tbl(i).consumed_amount :=  0;
    glmt_limit_balances_tbl(i).operation := QP_GLOBALS.g_opr_create;
/* Create Limit Attribute of type 'Limit Attribute 2' */
    glmt_limit_attrs_tbl(j).limit_attribute_id := FND_API.G_MISS_NUM;
    glmt_limit_attrs_tbl(j).created_by := FND_API.G_MISS_NUM;
    glmt_limit_attrs_tbl(j).last_updated_by := FND_API.G_MISS_NUM;
    glmt_limit_attrs_tbl(j).limit_attribute_type := 'QUALIFIER';
    glmt_limit_attrs_tbl(j).limit_attribute_context := 'CUSTOMER';
    glmt_limit_attrs_tbl(j).limit_attribute := 'QUALIFIER_ATTRIBUTE7';
    glmt_limit_attrs_tbl(j).limit_attr_value := '221';
```

```
    glmt_limit_attrs_tbl(j).limit_attr_datatype := 'N';
    glmt_limit_attrs_tbl(j).comparison_operator_code := '=';
    glmt_limit_attrs_tbl(j).operation := QP_GLOBALS.g_opr_create;
```

QP_Limits_PUB.Process_Limits

```
    (   p_api_version_number=> 1.0
    ,   x_return_status=> glmt_return_status
    ,   x_msg_count=> glmt_msg_count
    ,   x_msg_data=> glmt_msg_data
    ,   p_LIMITS_rec=> glmt_limits_rec
    ,   p_LIMITS_val_rec=> glmt_limits_val_rec
    ,   p_LIMIT_ATTRS_tbl=> glmt_limit_attrs_tbl
    ,   p_LIMIT_ATTRS_val_tbl=> glmt_limit_attrs_val_tbl
    ,   p_LIMIT_BALANCES_tbl=> glmt_limit_balances_tbl
    ,   p_LIMIT_BALANCES_val_tbl=> glmt_limit_balances_val_tbl
    ,   x_LIMITS_rec=> plmt_limits_rec
    ,   x_LIMITS_val_rec=> plmt_limits_val_rec
    ,   x_LIMIT_ATTRS_tbl=> plmt_limit_attrs_tbl
    ,   x_LIMIT_ATTRS_val_tbl=> plmt_limit_attrs_val_tbl
    ,   x_LIMIT_BALANCES_tbl=> plmt_limit_balances_tbl
    ,   x_LIMIT_BALANCES_val_tbl=> plmt_limit_balances_val_tbl
    );
dbms_output.put_line('Return Status' || glmt_return_status);
    IF glmt_return_status <> FND_API.G_RET_STS_SUCCESS
    THEN
        dbms_output.put_line('Error');
        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;
    ELSE
        dbms_output.put_line('Success');
    END IF;
EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

        glmt_return_status := FND_API.G_RET_STS_ERROR;
        for k in 1 .. glmt_msg_count
        loop
            glmt_msg_data := oe_msg_pub.get( p_msg_index => k,p_encoded => 'F');
            dbms_output.put_line('err msg ' || k ||'is:  ' || glmt_msg_data);
            oe_msg_pub.delete_msg(k);
        end loop;
        /*
        glmt_msg_data := oe_msg_pub.get_single_message(glmt_return_status);
```

```
    */
    dbms_output.put_
    line('****************************************************');

    dbms_output.put_line('err msg 1 is : ' || glmt_msg_data);
WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN
    glmt_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

    dbms_output.put_line(' msg count is : ' || glmt_msg_count);
    dbms_output.put_line('err msg is : ' || glmt_msg_data);

    for k in 1 .. glmt_msg_count
    loop
    glmt_msg_data := oe_msg_pub.get( p_msg_index => k,p_encoded => 'F');
    dbms_output.put_line('err msg ' || k ||'is:  ' || glmt_msg_data);
    oe_msg_pub.delete_msg(k);
    end loop;
     /*
    glmt_msg_data := oe_msg_pub.get_single_message(glmt_return_status);
    dbms_output.put_line('err msg is:  ' || glmt_msg_data);
    */
WHEN OTHERS THEN
    glmt_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

    dbms_output.put_line('err msg 3 is : ' || glmt_msg_data);

    for k in 1 .. glmt_msg_count
    loop
        glmt_msg_data := oe_msg_pub.get( p_msg_index => k,p_encoded => 'F');
        dbms_output.put_line('err msg ' || k ||'is:  ' || glmt_msg_data);
        oe_msg_pub.delete_msg(k);
    end loop;
end ;
/
    commit;
```

Example of how to update available amount on a limit balance

```
set serverout on
declare
    glmt_return_status varchar2(30);
    glmt_msg_data varchar2(2000);
    glmt_msg_count number := 0;
    glmt_limits_recQP_LIMITS_PUB.Limits_Rec_Type;
    glmt_limits_val_recQP_LIMITS_PUB.Limits_Val_Rec_Type;
```

```
    glmt_limit_attrs_tblQP_LIMITS_PUB.Limit_Attrs_Tbl_Type;
    glmt_limit_attrs_val_tblQP_LIMITS_PUB.Limit_Attrs_Val_Tbl_Type;
    glmt_limit_balances_tblQP_LIMITS_PUB.Limit_Balances_Tbl_Type ;
    glmt_limit_balances_val_tblQP_LIMITS_PUB.Limit_Balances_Val_Tbl_Type ;

    plmt_limits_recQP_LIMITS_PUB.Limits_Rec_Type;
    plmt_limits_val_recQP_LIMITS_PUB.Limits_Val_Rec_Type;
    plmt_limit_attrs_tblQP_LIMITS_PUB.Limit_Attrs_Tbl_Type;
    plmt_limit_attrs_val_tblQP_LIMITS_PUB.Limit_Attrs_Val_Tbl_Type;
    plmt_limit_balances_tblQP_LIMITS_PUB.Limit_Balances_Tbl_Type ;
    plmt_limit_balances_val_tblQP_LIMITS_PUB.Limit_Balances_Val_Tbl_Type ;

    i number := 1;
begin
glmt_limits_rec.limit_id := 259;
    glmt_limits_rec.organization_flag := 'N';
    --glmt_limits_rec.amount := 700;
    glmt_limits_rec.operation :=  QP_GLOBALS.G_OPR_UPDATE;
        QP_Limits_PUB.Process_Limits
        (   p_api_version_number=> 1.0
        ,   x_return_status=> glmt_return_status
        ,   x_msg_count=> glmt_msg_count
        ,   x_msg_data=> glmt_msg_data
        ,   p_LIMITS_rec=> glmt_limits_rec
        ,   x_LIMITS_rec=> plmt_limits_rec
        ,   x_LIMITS_val_rec=> plmt_limits_val_rec
            ,   x_LIMIT_ATTRS_tbl=> plmt_limit_attrs_tbl
        ,   x_LIMIT_ATTRS_val_tbl=> plmt_limit_attrs_val_tbl
        ,   x_LIMIT_BALANCES_tbl=> plmt_limit_balances_tbl
        ,   x_LIMIT_BALANCES_val_tbl=> plmt_limit_balances_val_tbl
        );
        dbms_output.put_line('Return Status' || glmt_return_status);
        IF glmt_return_status <> FND_API.G_RET_STS_SUCCESS
        THEN
        dbms_output.put_line('Error');
        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;
    ELSE
        dbms_output.put_line('Success');
    END IF;

EXCEPTION
    WHEN FND_API.G_EXC_ERROR THEN
        glmt_return_status := FND_API.G_RET_STS_ERROR;
        --  Get message count and data
        dbms_output.put_line('err msg 1 is : ' || glmt_msg_data);
```

```
    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN
        glmt_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
        dbms_output.put_line(' msg count 2 is : ' || glmt_msg_count);
        dbms_output.put_line('err msg 2 is : ' || glmt_msg_data);

        for k in 1 .. glmt_msg_count
        loop
            glmt_msg_data := oe_msg_pub.get( p_msg_index => k,p_encoded => 'F');
            /*
            oe_msg_pub.Count_And_Get(p_count => glmt_msg_count ,p_data => glmt_
            msg_data);
            */
            --  Get message count and data
            dbms_output.put_line('err msg ' || k ||'is:  ' || glmt_msg_data);
        null;
    end loop;
    WHEN OTHERS THEN
        glmt_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
        --  Get message count and data
        dbms_output.put_line('err msg 3 is : ' || glmt_msg_data);
end ;
/
commit;
```

Example of deleting a limits record

```
set serverout on
declare
glmt_return_status varchar2(30);
glmt_msg_data varchar2(2000);
glmt_msg_count number := 0;
glmt_limits_recQP_LIMITS_PUB.Limits_Rec_Type;
glmt_limits_val_recQP_LIMITS_PUB.Limits_Val_Rec_Type;
glmt_limit_attrs_tblQP_LIMITS_PUB.Limit_Attrs_Tbl_Type;
glmt_limit_attrs_val_tblQP_LIMITS_PUB.Limit_Attrs_Val_Tbl_Type;
glmt_limit_balances_tblQP_LIMITS_PUB.Limit_Balances_Tbl_Type ;
glmt_limit_balances_val_tblQP_LIMITS_PUB.Limit_Balances_Val_Tbl_Type ;

plmt_limits_recQP_LIMITS_PUB.Limits_Rec_Type;
plmt_limits_val_recQP_LIMITS_PUB.Limits_Val_Rec_Type;
plmt_limit_attrs_tblQP_LIMITS_PUB.Limit_Attrs_Tbl_Type;
plmt_limit_attrs_val_tblQP_LIMITS_PUB.Limit_Attrs_Val_Tbl_Type;
plmt_limit_balances_tblQP_LIMITS_PUB.Limit_Balances_Tbl_Type ;
plmt_limit_balances_val_tblQP_LIMITS_PUB.Limit_Balances_Val_Tbl_Type ;
```

```
i number := 1;
j number := 1;

begin


glmt_limits_rec.limit_id := 258;
QP_Limits_PUB.Process_Limits
(   p_api_version_number=> 1.0
,   x_return_status=> glmt_return_status
,   x_msg_count=> glmt_msg_count
,   x_msg_data=> glmt_msg_data
,   p_LIMITS_rec=> glmt_limits_rec
,   p_LIMITS_val_rec=> glmt_limits_val_rec
,   p_LIMIT_ATTRS_tbl=> glmt_limit_attrs_tbl
,   p_LIMIT_ATTRS_val_tbl=> glmt_limit_attrs_val_tbl
,   p_LIMIT_BALANCES_tbl=> glmt_limit_balances_tbl
,   p_LIMIT_BALANCES_val_tbl=> glmt_limit_balances_val_tbl
,   x_LIMITS_rec=> plmt_limits_rec
,   x_LIMITS_val_rec=> plmt_limits_val_rec
,   x_LIMIT_ATTRS_tbl=> plmt_limit_attrs_tbl
,   x_LIMIT_ATTRS_val_tbl=> plmt_limit_attrs_val_tbl
,   x_LIMIT_BALANCES_tbl=> plmt_limit_balances_tbl
,   x_LIMIT_BALANCES_val_tbl=> plmt_limit_balances_val_tbl
);
    dbms_output.put_line('Return Status' || glmt_return_status);
    IF glmt_return_status <> FND_API.G_RET_STS_SUCCESS THEN
        dbms_output.put_line('Error');
        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;
    ELSE
        dbms_output.put_line('Success');
    END IF;
EXCEPTION
    WHEN FND_API.G_EXC_ERROR THEN
        glmt_return_status := FND_API.G_RET_STS_ERROR;
        --  Get message count and data
        dbms_output.put_line('err msg 1 is : ' || glmt_msg_data);
    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN
        glmt_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
        dbms_output.put_line(' msg count 2 is : ' || glmt_msg_count);
        dbms_output.put_line('err msg 2 is : ' || glmt_msg_data);
    for k in 1 .. glmt_msg_count
        loop
            glmt_msg_data := oe_msg_pub.get( p_msg_index => k,p_encoded => 'F');
    --  Get message count and data
```

```
            dbms_output.put_line('err msg ' || k ||'is:  ' || glmt_msg_data);
            null;
        end loop;
    WHEN OTHERS THEN
        glmt_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
    --  Get message count and data
    dbms_output.put_line('err msg 3 is : ' || glmt_msg_data);
commit;
end ;
/
commit;
```

Get Currency Application Program Interface

This section explains how to use the Get_Currency API and how it functions in Oracle Advanced Pricing.

Get Currency API Features

The Get_Currency API is used to get all the currency codes for a given price list. The package QP_UTIL_PUB contains the procedure Get_Currency.

Functional Overview

While processing an order using a particular price list, the OM displays a valid set of currency codes when user activates the LOV. The OM calls this API to get the valid currency codes for the given price list and pricing effective date. If pricing effective date is not passed by calling application, the current date is defaulted. If profile QP: Multi Currency Installed is 'Y' then currency codes are retrieved by joining the view fnd_currencies_vl, table qp_list_headers_b and table qp_currency_details for the passed price list id else all the effective currencies are retrieved from view fnd_currencies_vl.

Setting Up and Parameter Descriptions

The following chart describes all parameters used by the Get_Currency API. All of the inbound and outbound parameters are listed.

Table 3–84 Get_Currency

Parameter	Usage	Type	Req	Drv
l_price_list_id	IN	Number	Yes	No
l_pricing_effective_date	IN	Date	No	No
l_currency_code_tbl	OUT	currency_code_tbl	No	No

CURRENCY_REC

The following table shows the parameters for this structure.

Table 3–85 CURRENCY_REC

Parameter	Usage	Type	Req	Drv
currency_code	Null	Varchar2	Yes	No
currency_name	Null	Varchar2	Yes	No
currency_precision	Null	Number	Yes	No

CURRENCY_CODE_TBL

The following table shows the parameters for this structure.

Table 3–86 CURRENCY_CODE_TBL

Parameter	Usage	Type	Req	Drv
Currency_rec	Null	Record	No	No

Validation of Get_Currency API

Standard Validation

The caller is responsible for passing the right parameters to Get_Currency.

For specific information on the data implied by these columns, see your *Oracle Pricing Technical Reference Manual* for details.

Other Validation

None.

Error Handling

If any exception occurs in the Get_Currency API, it does not return any Currency Codes

NOTE: The Package Specification and Body files are QPXRTCNS.pls and QPXRTCNB.pls and are available under the source control directory $QP_TOP/patch/115/sql.

Get Custom Price Application Program Interface

This section explains how to use the Get_Custom Price API (used in Formulas Setup) and how it functions in Oracle Advanced Pricing.

Get Custom Price API Features

The Get Custom Price API is a customizible function to which the user may add custom code. The Get_Custom_Price is called by the pricing engine while evaluating a formula that contains a formula line (step) of type Function. One or more formulas may be set up to contain a formula line of type Function and the same Get_Custom_price API is called each time. So the user must code the logic in the API based on the price_formula_id that is passed as an input parameter to the API.

Functional Overview

The package specification QP_CUSTOM contains the specification for the Get_ Custom_Price API. The package body/function body is not shipped with Oracle Advanced Pricing. The user must create the Package Body for QP_CUSTOM containing the function body for Get_Custom_Price which must adhere to the Function specification (in terms of parameters and return value) provided in the QP_CUSTOM package specification. For the engine to make a call to Get_Custom_ Price API, set the profile QP: Get Custom Price Customized at the site level to Yes. The Pricing engine displays an error if this profile is set and QP_CUSTOM. Get_ Custom_Price is not created in the database in the applications schema:

- API to all procedures within and outside of this package
- Get_Custom_Price: A customizible function.

Setting Up and Parameter Descriptions

The following chart describes all parameters used by the public Get Custom Price API. All of the inbound and outbound parameters are listed. Additional information on these parameters may follow. These parameters are input parameters to the Get_Custom_Price API and are passed by the Engine.

The following table shows the parameters for this structure.

Table 3–87 Get_Custom_Price

Parameter	Usage	Type	Req	Drv
p_price_formula_id	In	Number	Yes	No
p_list_price	In	Number	No	No
p_price_effective_date	In	Date	Yes	No
p_req_line_attrs_tbl	In	Table (REQ_LINE_ATTRS_TBL)	Yes	No
	Return	Number	Yes	No

REQ_LINE_ATTRS_TBL

The following table shows the parameters for this structure.

Table 3–88 REQ_LINE_ATTRS_TBL

Parameter	Usage	Type	Req	Drv
rec_line_attrs_rec	Null	Record (REQ_LINE_ATTRS_REC)	No	No

REQ_LINE_ATTRS_REC

The following table shows the parameters for this structure.

Table 3–89 REQ_LINE_ATTRS_REC

Parameter	Usage	Type	Req	Drv
line_index	Null	Number	Yes	No
attribute_type	Null	Varchar2	Yes	No
context	Null	Varchar2	Yes	No
attribute	Null	Varchar2	Yes	No
value	Null	Varchar2	Yes	No

Validation of Get Custom Price API

Standard Validation

The user is responsible for all code and validations in the Get Custom Price API. For more information, see: Oracle Pricing Technical Reference Manual.

Other Validation

None

Error Handling

The user is responsible for all error handling in the Get Custom Price API. If any user-coded validation fails, the API should raise exceptions to propagate it to the calling module.

Sample Code1: The following is a sample code showing how the body of the Get_Custom_Price function is coded in the file QPXCUSTB.pls.

The user must use the function specification of Get_Custom_Price as well as any type definitions from QPXCUSTS.pls.

The parameters to Get_Custom_Price are always fixed and not customizible. But the user can use the input parameters passed by the pricing engine in their custom code. The function returns a number. The user can code the function to return the desired value which must be a number. The return value is used in the evaluation of the formula.

For example, consider a formula having an expression 1*2 where 1 and 2 are step numbers. Each step number corresponds to a formula line. Each formula line has a type:

- Step 1 corresponds to a formula line of type Numeric Constant with a component of '200,' and
- Step 2 corresponds to a formula line of type Function. This means the value returned by the QP_CUSTOM.Get_Custom_Price function will be used as the value for this step.

To evaluate the Formula, the pricing engine first obtains the value of each step and substitutes the step with its value in the expression. So step 1 is substituted by the value which is 200. Step 2 is substituted with the value returned by Get_Custom_Price which must be customized by the user (the Profile Option mentioned earlier must also be set to Yes to use this Get_Custom_Price functionality.

If Get_Custom_Price is customized as below:

```
PACKAGE BODY QP_CUSTOM AS
/*============================================================================
The Get_Custom_Price Function name and parameters are not customizable but the
body can be been customized. The parameters are:

p_price_formula_id: Primary key of the formula that uses the Get_Custom_Price
```

```
function
p_list_price: List price of the price list line to which the formula using Get_
Custom_Price is attached. May have null value.
p_price_effective_date: Current date when Formula is being evaluated by the
pricing engine.
p_req_line_attrs_tbl: PL/SQL table of records containing Context, Attribute,
Attribute Value records for Product and Pricing Attributes and a column
indicating the type - whether Product Attribute or Pricing Attribute.
Also the engine passes the Pricing Attributes and Product Attributes of only the
current line to which the formula is attached.
The parameters are passed to the function by the pricing engine and can be used
in the function body.

*********************************************************************/
FUNCTION Get_Custom_Price
    p_price_formula_id     IN NUMBER,
    p_list_price           IN NUMBER,
    p_price_effective_date IN DATE,
        p_req_line_attrs_tbl INQP_FORMULA_PRICE_CALC_PVT.REQ_LINE_ATTRS_TBL)

RETURN NUMBER IS
v_requested_item  VARCHAR2(240);
v_weight                NUMBER;

BEGIN
IF p_price_formula_id = 1726   -- Assume this is the internal Id/primary key for
the sample Formula 1*2

THEN
    --Loop through the PL/SQL table of records passed by the Engine as an input
    parameter and
    --containing Pricing Attributes and Product Attributes of the Price List
    Line or Modifier Line to which
    -- the current formula is attached.

    FOR i IN 1..p_req_line_attrs_tbl.count LOOP

       IF p_req_line_attrs_tbl(i).attribute_type = 'PRODUCT'
AND   /*Attribute Type is Product*/

        p_req_line_attrs_tbl(i).context = 'ITEM'
AND

        p_req_line_attrs_tbl(i).attribute = 'PRICING_ATTRIBUTE1'
THEN
```

```
        -- For this combination of Product Context and Attribute, the Attribute
        Value is the Inventory Item Id

        v_requested_item := p_req_line_attrs_tbl(i).value;

    END IF;

        IF p_req_line_attrs_tbl(i).attribute_type = 'PRICING'
AND                 /*Attribute Type is Pricing*/

        p_req_line_attrs_tbl(i).context = 'MIXED'
AND
        p_req_line_attrs_tbl(i).attribute = 'PRICING_ATTRIBUTE4'
THEN
        --For this combination of Pricing Context and Attribute, let's say, the
        Attribute Value is the Weight of

        --the item to which the formula is attached.
        v_weight := p_req_line_attrs_tbl(i).value;

        END IF;

END LOOP; /*For Loop*/

        RETURN v_weight;

EXCEPTION

        WHEN OTHERS THEN

RETURN NULL;

END Get_Custom_Price;

END QP_CUSTOM;

Then if v_weight has a value '1.2' then Get_Custom_Price returns a value of
'1.2'
Therefore,the pricing engine evaluates the formula as 200*1.2 = 240.
```

See

Oracle Pricing Technical Reference Manual

Get Price List Application Program Interface

This section explains how to use the Get_Price_List API and how it functions in Oracle Advanced Pricing.

Get Price List API Features

The Get Price List API is used to get all the price lists for a given currency code and/or agreement id. The package QP_UTIL_PUB contains the procedure Get_Price_List.

Functional Overview

While processing an order using a particular currency code and/or agreement id, the OM displays a valid set of price lists when user activates the LOV. The OM calls this API to get the valid price lists for the given currency code, and/or agreement id and pricing effective date. If pricing effective date is not passed by calling application, the current date is defaulted. If profile QP: Multi Currency Installed is 'Y' then price lists are retrieved by joining the view qp_list_headers_vl and table qp_currency_details else only view qp_list_headers_vl is used.

Setting Up and Parameter Descriptions

The following chart describes all parameters used by the Get_Price_List API. All of the inbound and outbound parameters are listed.

Table 3–90 Get_Price_List

Parameter	Usage	Type	Req	Drv
l_currency_code	IN	Varchar2	Yes	No
l_pricing_effective_date	IN	Date	No	No
l_agreement_id	IN	Number	No	No
l_price_list_tbl	OUT	price_list_tbl	No	No

PRICE_LIST_REC

The following table shows the parameters for this structure.

Table 3–91 PRICE_LIST_REC

Parameter	Usage	Type	Req	Drv
price_list_id	Null	Number	Yes	No
name	Null	Varchar2	Yes	No
Description	Null	Varchar2	Yes	No
start_date_active	Null	Date	No	No
end_date_active	Null	Date	No	No

PRICE_LIST_TBL

The following table shows the parameters for this structure.

Table 3–92 PRICE_LIST_TBL

Parameter	Usage	Type	Req	Drv
price_list_rec	Null	Record	No	No

Validation of Get_Price_List API

Standard Validation

The caller is responsible for passing the right parameters to Get_Price_List.

For specific information on the data implied by these columns, see: Oracle Pricing Technical Reference Manual for details.

Other Validation

None.

Error Handling

If any exception occurs in the Get_Price_List API, it does not return any price lists.

NOTE: The Package Specification and Body files are QPXRTCNS.pls and QPXRTCNB.pls and are available under the source control directory $QP_TOP/patch/115/sql.

Multi-Currency Conversion Setup Application Program Interface

This section explains how to use the Multi-Currency Conversion Setup API and how it functions in Oracle Advanced Pricing. The Multi-Currency Conversion Setup package consists of entities to set up Multi-Currency Conversion.

Functional Overview

The Multi-Currency Conversion Setup package QP_Currency_PUB. Process_ Currency contains the following public record type and table of records entities:

- Process_Currency: QP_Currency_PUB.Process_Currency: Takes two record types and two table types as input parameters. Use this API to insert, and update Multi-Currency Conversion and to set up a Multi-Currency Conversion for a given p_CURR_LISTS_rec record structure. The Multi-Currency Conversion can not be deleted but it can be inactivated by setting the effective dates.

You can:

- Set up multiple multi-currency conversion lines by giving multiple multi-currency conversion line definitions in the p_CURR_DETAILS_tbl table structure.
- Curr_Lists_Rec_Type: Corresponds to the columns in the multi-currency header tables QP_ CURRENCY_LISTS_B and QP_CURRENCY_LISTS_TL.
- Curr_Lists_Val_Rec_Type: Attributes that store the meaning of id or code columns in the multi-currency header table QP_ CURRENCY_LISTS _B, for example, Base Currency.
- Curr_Details_Rec_Type: Corresponds to columns in the multi-currency conversion line table QP_CURRENCY_DETAILS.
- Curr_Details_Tbl_Type: Table of Curr_Details_Rec_Type.
- Curr_Details_Val_Rec_Type: Attributes that store the meaning of id or code columns in the multi-currency conversion line table QP_CURRENCY_ DETAILS, for example, Markup_Formula.
- Curr_Details_Val_Tbl_Type: Table of Curr_Details_Val_Rec_Type.

Setting Up and Parameter Descriptions

The following chart describes all parameters used by the public Multi-Currency Conversion Setup. All of the inbound and outbound parameters are listed. Additional information on these parameters may follow.

PROCESS_CURRENCY

The following table shows the parameters for this structure.

Table 3–93 PROCESS_CURRENCY

Parameter	Usage	Type	Req	Drv
p_api_version_number	In	Number	No	No
p_init_msg_list	In	Varchar2	No	No
p_return_values	In	Varchar2	No	No
p_commit	In	Varchar2	No	No
x_return_status	Out	Varchar2	No	No
x_msg_count	Out	Number	No	No
x_msg_data	Out	Varchar2	No	No
p_CURR_LISTS_rec	In	Curr_Lists_Rec_Type	No	No
p_CURR_LISTS_val_rec	In	Curr_Lists_Val_Rec_Type	No	No
p_CURR_DETAILS_tbl	In	Curr_Details_Tbl_Type	No	No
p_CURR_DETAILS_val_tbl	In	Curr_Details_Val_Tbl_Type	No	No
x_CURR_LISTS_rec	Out	Curr_Lists_Rec_Type	No	No
x_CURR_LISTS_val_rec	Out	Curr_Lists_Val_Rec_Type	No	No
x_CURR_DETAILS_tbl	Out	Curr_Details_Tbl_Type	No	No
x_CURR_DETAILS_val_tbl	Out	Curr_Details_Val_Tbl_Type	No	No

CURR_LISTS_REC_TYPE

The following table shows the parameters for this structure.

Table 3–94 CURR_LISTS_REC_TYPE

Parameter	Usage	Type	Req	Drv
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No
base_currency_code	Null	Varchar2	Yes	No
Context	Null	Varchar2	No	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
currency_header_id	Null	Number	No	No
Description	Null	Varchar2	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
Name	Null	Varchar2	No	No

Table 3–94 CURR_LISTS_REC_TYPE

Parameter	Usage	Type	Req	Drv
base_rounding_factor	Null	Number	No	No
base_markup_formula_id	Null	Number	No	No
base_markup_operator	Null	Varchar2	No	No
base_markup_value	Null	Number	No	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No
prorate_flag	Null	Varchar2	No	No
request_id	Null	Number	No	No
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
Operation	Null	Varchar2	Yes	No

CURR_LISTS_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–95 CURR_LISTS_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Curr_Lists_Rec_Type	Null	Record	No	No

CURR_LISTS_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–96 CURR_LISTS_VAL_REC_TYPE

Parameter	Usage	Type	Req	Drv
base_currency	Null	Varchar2	No	No
currency_header	Null	Varchar2	No	No
base_markup_formula	Null	Varchar2	No	No

CURR_LISTS_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–97 CURR_LISTS_VAL_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Curr_Lists_Val_Rec_ Type	Null	Record	No	No

CURR_DETAILS_REC_TYPE

The following table shows the parameters for this structure.

Table 3–98 CURR_DETAILS_REC_TYPE

Parameter	Usage	Type	Req	Drv
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No
Context	Null	Varchar2	No	No
conversion_date	Null	Date	No	No
conversion_date_type	Null	Varchar2	No	No

Table 3–98 CURR_DETAILS_REC_TYPE

Parameter	Usage	Type	Req	Drv
conversion_type	Null	Varchar2	Yes	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
currency_detail_id	Null	Number	No	No
currency_header_id	Null	Number	No	No
end_date_active	Null	Date	No	No
fixed_value	Null	Number	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
markup_formula_id	Null	Number	No	No
markup_operator	Null	Varchar2	No	No
markup_value	Null	Number	No	No
price_formula_id	Null	Number	No	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No
request_id	Null	Number	No	No
rounding_factor	Null	Number	No	No
selling_rounding_factor	Null	Number	No	No
start_date_active	Null	Date	No	No
to_currency_code	Null	Varchar2	Yes	No
curr_attribute_type	Null	Varchar2	No	No
curr_attribute_context	Null	Varchar2	No	No
curr_attribute	Null	Varchar2	No	No
curr_attribute_value	Null	Varchar2	No	No
Precedence	Null	Number	No	No

Table 3–98 CURR_DETAILS_REC_TYPE

Parameter	Usage	Type	Req	Drv
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	No	No

CURR_DETAILS_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–99 CURR_DETAILS_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Curr_Details_Rec_Type	Null	Record	No	No

CURR_DETAILS_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–100 CURR_DETAILS_VAL_REC_TYPE

Parameter	Usage	Type	Req	Drv
currency_detail	Null	Varchar2	No	No
currency_header	Null	Varchar2	No	No
markup_formula	Null	Varchar2	No	No
price_formula	Null	Varchar2	No	No
to_currency	Null	Varchar2	No	No

CURR_DETAILS_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–101 CURR_DETAILS_VAL_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Curr_Details_Val_Rec_ Type	Null	Record	No	No

Validation of Multi-Currency Conversion API

Standard Validation

Oracle Advanced Pricing validates all required columns in the Multi-Currency Conversion API. For more information, see: Oracle Pricing Technical Reference Manual.

Other Validation

None

Error Handling

If any validation fails, the API will return error status to the calling module. The Multi-Currency Conversion API processes the rows and reports the values in the following table for every record.

Table 3–102 Error Handling

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	null
Failure	4	actual error message

Example of Multi-Currency Conversion API

The following code can also be found in file QPXEXCUR.sql in $QP_TOP/patch/115/sql directory

```
--Multi-Currency Conversion Creation - USD to FRF and GBP
REM FILETYPE : NOEXEC

REM Added for ARU db drv auto generation
REM dbdrv: none

SET VERIFY OFF
WHENEVER SQLERROR EXIT FAILURE ROLLBACK;
--set serveroutput on
declare
/* $Header: QPXEXCUR.sql 115.0 2002/05/22 00:38:04 mkarya noship $ */

l_return_status              VARCHAR2(1);
x_msg_count                  number;
x_msg_data                   Varchar2(2000);
```

```
x_msg_index                   number;

l_CURR_LISTS_rec              QP_Currency_PUB.Curr_Lists_Rec_Type;
l_CURR_LISTS_val_rec          QP_Currency_PUB.Curr_Lists_Val_Rec_Type;
l_CURR_DETAILS_tbl            QP_Currency_PUB.Curr_Details_Tbl_Type;
l_CURR_DETAILS_val_tbl        QP_Currency_PUB.Curr_Details_Val_Tbl_Type;

Begin

-- Create a Multi-Currency Conversion List for Base Currency USD

   l_CURR_LISTS_rec.base_currency_code         := 'USD';
   l_CURR_LISTS_rec.name                       := 'New Corporate Multi-Currency
Conversion';
   l_CURR_LISTS_rec.description                := 'Corporate Multi-Currency
Conversion Description';
   l_CURR_LISTS_rec.base_rounding_factor       := -2;
   l_CURR_LISTS_rec.base_markup_operator       := '%';
   l_CURR_LISTS_rec.base_markup_value          := 5;
   l_CURR_LISTS_rec.operation                  := QP_GLOBALS.G_OPR_CREATE;
-- Create Multi-Currency Details for Currency FRF and AUD
l_CURR_DETAILS_tbl(1).to_currency_code := 'FRF';
l_CURR_DETAILS_tbl(1).conversion_type := 'FIXED';
l_CURR_DETAILS_tbl(1).fixed_value := 2.2;
l_CURR_DETAILS_tbl(1).curr_attribute_type := 'QUALIFIER';
l_CURR_DETAILS_tbl(1).curr_attribute_context := 'CUSTOMER';
l_CURR_DETAILS_tbl(1).curr_attribute := 'QUALIFIER_ATTRIBUTE2';
l_CURR_DETAILS_tbl(1).curr_attribute_value := '1005';
l_CURR_DETAILS_tbl(1).precedence := 101;
l_CURR_DETAILS_tbl(1).markup_operator := '%';
l_CURR_DETAILS_tbl(1).markup_value := 6;
l_CURR_DETAILS_tbl(1).selling_rounding_factor := -2;
l_CURR_DETAILS_tbl(1).operation := QP_GLOBALS.G_OPR_CREATE;

l_CURR_DETAILS_tbl(2).to_currency_code := 'AUD';
l_CURR_DETAILS_tbl(2).conversion_type := 'Corporate';
l_CURR_DETAILS_tbl(2).conversion_date_type := 'FIXED';
l_CURR_DETAILS_tbl(2).conversion_date := sysdate;
l_CURR_DETAILS_tbl(2).markup_operator := '%';
l_CURR_DETAILS_tbl(2).markup_value := 7;
l_CURR_DETAILS_tbl(2).selling_rounding_factor := -2;
l_CURR_DETAILS_tbl(2).operation := QP_GLOBALS.G_OPR_CREATE;

-- Call the Multi-Currency Conversion Public API to create the header and lines
```

```
QP_Currency_PUB.Process_Currency
    ( p_api_version_number => 1.0
    , p_init_msg_list  => FND_API.G_FALSE
    , p_return_values  =>  FND_API.G_FALSE
    , p_commit         => FND_API.G_FALSE
    , x_return_status  => l_return_status
    , x_msg_count      =>x_msg_count
    , x_msg_data       =>x_msg_data
    , p_CURR_LISTS_rec           => l_CURR_LISTS_rec
    , p_CURR_LISTS_val_rec       => l_CURR_LISTS_val_rec
    , p_CURR_DETAILS_tbl         => l_CURR_DETAILS_tbl
    , p_CURR_DETAILS_val_tbl     => l_CURR_DETAILS_val_tbl
    , x_CURR_LISTS_rec           => l_CURR_LISTS_rec
    , x_CURR_LISTS_val_rec       => l_CURR_LISTS_val_rec
    , x_CURR_DETAILS_tbl         => l_CURR_DETAILS_tbl
    , x_CURR_DETAILS_val_tbl     => l_CURR_DETAILS_val_tbl
    );


        IF l_return_status <> FND_API.G_RET_STS_SUCCESS THEN

           RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

        END IF;

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

        l_return_status := FND_API.G_RET_STS_ERROR;

        --  Get message count and data

        --dbms_output.put_line('err msg is : ' || x_msg_data);

    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

    l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

        for k in 1 .. x_msg_count loop
        x_msg_data := oe_msg_pub.get( p_msg_index => k,
        p_encoded => 'F'

);
```

```
--Get message count and data
--dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

           end loop;


    WHEN OTHERS THEN

        l_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

    for k in 1 .. x_msg_count loop
    x_msg_data := oe_msg_pub.get( p_msg_index => k,
        p_encoded => 'F'

);
--Get message count and data
--dbms_output.put_line('err msg ' || k ||'is:  ' || x_msg_data);

        end loop;
END;
/
COMMIT;
EXIT;
```

Attaching a multi-currency conversion to a Price List

The multi-currency conversion can be attached to a Price List by passing the currency header id (of the multi-currency conversion to be attached) to the record QP_Price_List_PUB. Price_List_Rec_Type while using the Application Program Interface (QP_Price_List_PUB. Process_Price_List()) for Price List. For more information, see: Round Price Application Program Interface on page 3-332.

Attaching a multi-currency conversion to 'AGR' agreement

The multi-currency conversion can be attached to a Agreement by passing the currency header id (of the multi-currency conversion to be attached) to the record QP_PRICE_LIST_PUB.Price_List_Rec_Type while using the Application Program Interface (OE_Pricing_Cont_PUB.Process_Agreement ()) for Agreement. For more information, see: Agreements Public Application Program Interface on page 3-3.

Defaulting a multi-currency conversion to a 'STANDARD' agreement from the price list

The multi-currency conversion of price list gets defaulted while creating an agreement of type ‘STANDARD’. No extra steps are needed. Just specify the price list id, as used to be, while creating an agreement of type ‘STANDARD’ using the Application Program Interface (OE_Pricing_Cont_PUB.Process_Agreement ()) for Agreement. For more information, see: Agreements Public Application Program Interface on page 3-3.

Price List Setup Application Program Interface

This section explains how to use the Price List Setup API and how it functions in Oracle Advanced Pricing. The Price List Setup package consists of entities to set up price lists.

Functional Overview

The Price List Setup package QP_Price_List_PUB.Process_Price_List contains the following public record type and table of records entities:

- Process_Price_List: QP_Price_List_PUB.Process_Price_List:.Takes two record types and six table types as input parameters. Use this API to insert, update, and delete price lists and to set up a price list for a given p_PRICE_LIST_rec record structure.

You can:

- Set up multiple price list lines by giving multiple price list line definitions in the p_ PRICE_LIST_LINE_tbl table structure.
- Attach multiple qualifiers at the price list header level by giving multiple qualifiers in the p_QUALIFIERS_tbl table structure.
- Attach multiple pricing attributes to price list lines by giving the pricing attributes in the p_PRICING_ATTR_tbl table structure.
- Price_List_Rec_Type: Corresponds to the columns in the price list header tables QP_ LIST_HEADERS_B and QP_LIST_HEADERS_TL.
- Price_List_Val_Rec_Type: Attributes that store the meaning of id or code columns in the price list header table QP_LIST_HEADERS_B, for example, Currency.
- Price_List_Line_Rec_Type: Corresponds to columns in the price list line table and related modifiers tables QP_LIST_LINES and QP_RLTD_MODIFIERS.
- Price_List_Line_Tbl_Type: Table of Price_List_Line_Rec_Type.
- Price_List_Line_Val_Rec_Type: Attributes that store the meaning of id or code columns in the price list line table QP_LIST_LINES, for example, Price_By_ Formula.
- Price_List_Line_Val_Tbl_Type: Table of Price_List_Line_Val_Rec_Type.
- Qualifiers_Rec_Type: Corresponds to the columns in the qualifier table QP_ QUALIFIERS.

- Qualifiers_Tbl_Type: Table of Qualifiers_Rec_Type.
- Qualifiers_Val_Rec_Type: Made up of attributes that store the meaning of id or code columns in the qualifiers table QP_QUALIFIERS, for example, Qualifier_ Rule.
- Qualifiers_Val_Tbl_Type: Table of Qualifiers_Val_Rec_Type.
- Pricing_Attr_Rec_Type: Corresponds to the columns in the pricing attributes table QP_ PRICING_ATTRIBUTES.
- Pricing_Attr_Tbl_Type: Table of Pricing_Attr_Rec_Type.
- Pricing_Attr_Val_Rec_Type: Attributes that store the meaning of id or code columns in the pricing attributes table QP_PRICING_ATTRIBUTES, for example, Accumulate.
- Pricing_Attr_Val_Tbl_Type: Table of Pricing_Attr_Val_Rec_Type.

Setting Up and Parameter Descriptions

The following chart describes all parameters used by the public Price List Setup. All of the inbound and outbound parameters are listed. Additional information on these parameters may follow.

PROCESS_PRICE_LIST

The following table shows the parameters for this structure.

Table 3–103 PROCESS_PRICE_LIST

Parameter	Usage	Type	Req	Drv
p_api_version_number	In	Number	No	No
p_init_msg_list	In	Varchar2	No	No
p_return_values	In	Varchar2	No	No
p_commit	In	Varchar2	No	No
x_return_status	Out	Varchar2	No	No
x_msg_count	Out	Varchar2	No	No
x_msg_data	Out	Varchar2	No	No
p_PRICE_LIST_rec	In	Price_List_Rec_ Type	No	No
p_PRICE_LIST_val_rec	In	Price_List_Val_ Rec_Type	No	No

Table 3–103 PROCESS_PRICE_LIST

Parameter	Usage	Type	Req	Drv
p_PRICE_LIST_tbl	In	Price_List_Line_ tbl_type	No	No
p_PRICE_LIST_val_tbl	In	Price_List_Line_Val_tbl_type	No	No
p_QUALIFIERS_tbl	In	QP_Qualifier_ Rules_ PUB.Qualifiers_ tbl_Type	No	No
p_QUALIFIERS_val_tbl	In	QP_Qualifier_ Rules_ PUB.Qualifiers_ val_tbl_Type	No	No
p_PRICING_ATTR_tbl	In	Pricing_Attr_tbl_ type	No	No
p_PRICING_ATTR_val_tbl	In	Pricing_Attr_val_ tbl_type	No	No
x_PRICE_LIST_rec	Out	Price_List_Rec_ Type	No	No
x_ PRICE_LIST_val_rec	Out	Price_List_Val_ Rec_Type	No	No
x_PRICE_LIST_LINE_tbl	Out	Price_List_Line_ tbl_type	No	No
x_PRICE_LIST_LINE_ val_ tbl	Out	Price_List_Line_Val_tbl_type	No	No
x_QUALIFIERS_tbl	Out	QP_Qualifier_ Rules_ PUB.Qualifiers_ tbl_Type	No	No
x_QUALIFIERS_val_tbl	Out	QP_Qualifier_ Rules_ PUB.Qualifiers_ val_tbl_Type	No	No
x_PRICING_ATTR_tbl	Out	Pricing_Attr_tbl_ type	No	No
x_PRICING_ATTR_val_tbl	In	Pricing_Attr_val_ tbl_type	No	No

PRICE_LIST_REC_TYPE

The following table shows the parameters for this structure.

Table 3–104 PRICE_LIST_REC_TYPE

Parameter	Usage	Type	Req	Drv
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No

Table 3–104 PRICE_LIST_REC_TYPE

Parameter	Usage	Type	Req	Drv
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No
automatic_flag	Null	Varchar2	No	No
comments	Null	Varchar2	No	No
context	Null	Varchar2	No	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
currency_code	Null	Varchar2	Yes	No
discount_lines_flag	Null	Varchar2	No	No
end_date_active	Null	Date	No	No
freight_terms_code	Null	Varchar2	No	No
gsa_indicator	Null	Varchar2	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
list_header_id	Null	Number	No	No
list_type_code	Null	Varchar2	No	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No

Table 3–104 PRICE_LIST_REC_TYPE

Parameter	Usage	Type	Req	Drv
program_update_date	Null	Date	No	No
prorate_flag	Null	Varchar2	No	No
request_id	Null	Number	No	No
rounding_factor	Null	Number	No	No
ship_method_code	Null	Varchar2	No	No
start_date_active	Null	Date	No	No
terms_id	Null	Number	No	No
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	Yes	No
name	Null	Varchar2	Yes	No
description	Null	Varchar2	No	No
version_no	Null	Varchar2	No	No
Active_flag	Null	Varchar2	No	No
mobile_download	Null	Varchar2	No	No
currency_header_id	Null	Number	No	No
list_source_code	Null	Varchar2	No	No
orig_system_header_ref	Null	Varchar2	No	No
global_flag	Null	Varchar2	No	No
orig_org_id	Null	Number	No	No

PRICE_LIST_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–105 PRICE_LIST_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Price_List_Rec_Type	Null	Record	No	No

PRICE_LIST_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–106 PRICE_LIST_VAL_REC_TYPE

Parameter	Usage	Type	Req	Drv
automatic	Null	Varchar2	No	No
currency	Null	Varchar2	No	No
discount_lines	Null	Varchar2	No	No
freight_terms	Null	Varchar2	No	No
list_header	Null	Varchar2	No	No
list_type	Null	Varchar2	No	No
prorate	Null	Varchar2	No	No
ship_method	Null	Varchar2	No	No
terms	Null	Varchar2	No	No
currency_header	Null	Varchar2	No	No

PRICE_LIST_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–107 PRICE_LIST_VAL_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Price_List_Val_Rec_Type	Null	Record	No	No

PRICE_LIST_LINE_REC_TYPE

The following table shows the parameters for this structure.

Table 3–108 PRICE_LIST_LINE_REC_TYPE

Parameter	Usage	Type	Req	Drv
accrual_qty	Null	Number	No	No
accrual_uom_code	Null	Varchar2	No	No
arithmetic_operator	Null	Varchar2	No	No

Table 3–108 PRICE_LIST_LINE_REC_TYPE

Parameter	Usage	Type	Req	Drv
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No
automatic_flag	Null	Varchar2	No	No
base_qty	Null	Number	No	No
base_uom_code	Null	Varchar2	No	No
comments	Null	Varchar2	No	No
context	Null	Varchar2	No	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
effective_period_uom	Null	Varchar2	No	No
end_date_active	Null	Date	No	No
estim_accrual_rate	Null	Number	No	No
generate_using_ formula_id	Null	Number	No	No
inventory_item_id	Null	Number	No	No

Table 3–108 PRICE_LIST_LINE_REC_TYPE

Parameter	Usage	Type	Req	Drv
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
list_header_id	Null	Number	No	No
list_line_id	Null	Number	No	No
list_line_type_code	Null	Varchar2	No	No
list_price	Null	Number	No	No
modifier_level_code	Null	Varchar2	No	No
number_effective_ periods	Null	Number	No	No
operand	Null	Number	No	No
organization_id	Null	Number	No	No
override_flag	Null	Varchar2	No	No
percent_price	Null	Number	No	No
price_break_type_code	Null	Varchar2	No	No
price_by_formula_id	Null	Number	No	No
primary_uom_flag	Null	Varchar2	No	No
print_on_invoice_flag	Null	Varchar2	No	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No
rebate_trxn_type_code	Null	Varchar2	No	No
related_item_id	Null	Number	No	No
relationship_type_id	Null	Number	No	No
reprice_flag	Null	Varchar2	No	No
request_id	Null	Number	No	No
revision	Null	Varchar2	No	No

Table 3–108 PRICE_LIST_LINE_REC_TYPE

Parameter	Usage	Type	Req	Drv
revision_date	Null	Date	No	No
revision_reason_code	Null	Varchar2	No	No
start_date_active	Null	Date	No	No
substitution_attribute	Null	Varchar2	No	No
substitution_context	Null	Varchar2	No	No
substitution_value	Null	Varchar2	No	No
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	No	No
from_rltd_modifier_id	Null	Number	No	No
rltd_modifier_group_no	Null	Number	No	No
product_precedence	Null	Number	No	No

PRICE_LIST_LINE_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–109 PRICE_LIST_LINE_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Price_List_Line_Rec_ Type	Null	Record	No	No

PRICE_LIST_LINE_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–110 PRICE_LIST_LINE_VAL_REC_TYPE

Parameter	Usage	Type	Req	Drv
accrual_uom	Null	Varchar2	No	No
automatic	Null	Varchar2	No	No
base_uom	Null	Varchar2	No	No

Table 3–110 PRICE_LIST_LINE_VAL_REC_TYPE

Parameter	Usage	Type	Req	Drv
generate_using_formula	Null	Varchar2	No	No
inventory_item	Null	Varchar2	No	No
list_header	Null	Varchar2	No	No
list_line	Null	Varchar2	No	No
list_line_type	Null	Varchar2	No	No
modifier_level	Null	Varchar2	No	No
organization	Null	Varchar2	No	No
override	Null	Varchar2	No	No
price_break_type	Null	Varchar2	No	No
price_by_formula	Null	Varchar2	No	No
primary_uom	Null	Varchar2	No	No
print_on_invoice	Null	Varchar2	No	No
rebate_transaction_type	Null	Varchar2	No	No
related_item	Null	Varchar2	No	No
relationship_type	Null	Varchar2	No	No
reprice	Null	Varchar2	No	No
revision_reason	Null	Varchar2	No	No

PRICE_LIST_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–111 PRICE_LIST_VAL_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Price_List_Line_Val_ Rec_ Type	Null	Record	No	No

QUALIFIERS_REC_TYPE

The following table shows the parameters for this structure.

Table 3–112 QUALIFIERS_REC_TYPE

Parameter	Usage	Type	Req	Drv
QP_Qualifier_Rules_ PUB.Qualifiers_Rec_Type	Null	Record	No	No

Refer to the Qualifiers public API for the definition.

QUALIFIERS_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–113 QUALIFIERS_TBL_TYPE

Parameter	Usage	Type	Req	Drv
QP_Qualifier_Rules_ PUB.Qualifiers_Tbl_Type	Null	Record	No	No

Refer to the Qualifiers public API for the definition.

QUALIFIERS_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–114 QUALIFIERS_VAL_REC_TYPE

Parameter	Usage	Type	Req	Drv
QP_Qualifier_Rules_ PUB.Qualifiers_Val_Rec_ Type	Null	Record	No	No

Refer to the Qualifiers public API for the definition.

QUALIFIERS_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–115 QUALIFIERS_VAL_TBL_TYPE

Parameter	Usage	Type	Req	Drv
QP_Qualifier_Rules_ PUB.Qualifiers_Val_Tbl_ Type	Null	Record	No	No

Refer to the Qualifiers public API for the definition.

Note: For setting up Secondary Price List, Create a qualifier with the parameters:

QUALIFIER_CONTEXT - 'MODLIST'

QUALIFIER_ATTRIBUTE - 'QUALIFIER_ATTRIBUTE4'

QUALIFIER_ATTR_VALUE - <list_header_id of the primary price list>

LIST_HEADER_ID - <list_header_id of the secondary price list>

COMPARISON_OPERATOR_CODE - '='.

See the Example 2 for the details about how to setup a Secondary Price List.

PRICING_ATTR_REC_TYPE

The following table shows the parameters for this structure.

Table 3–116 PRICING_ATTR_REC_TYPE

Parameter	Usage	Type	Req	Drv
accumulate_flag	Null	Varchar2	No	No
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No

Table 3–116 PRICING_ATTR_REC_TYPE

Parameter	Usage	Type	Req	Drv
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No
attribute_grouping_number	Null	Number	No	No
context	Null	Varchar2	No	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
excluder_flag	Null	Varchar2	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
list_line_id	Null	Number	No	No
pricing_attribute	Null	Varchar2	No	No
pricing_attribute_context	Null	Varchar2	No	No
pricing_attribute_id	Null	Number	No	No
pricing_attr_value_from	Null	Varchar2	No	No
pricing_attr_value_to	Null	Varchar2	No	No
product_attribute	Null	Varchar2	Yes	No
product_attribute_context	Null	Varchar2	Yes	No
product_attr_value	Null	Varchar2	Yes	No
product_uom_code	Null	Varchar2	Yes	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No

Table 3–116 PRICING_ATTR_REC_TYPE

Parameter	Usage	Type	Req	Drv
request_id	Null	Number	No	No
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	Yes	No
PRICE_LIST_LINE_index	Null	Number	No	No
from_rltd_modifier_id	Null	Number	No	No
comparison_operator_code	Null	Varchar2	Yes	No
product_attribute_datatype	Null	Varchar2	No	Yes
pricing_attribute_datatype	Null	Varchar2	No	Yes

PRICING_ATTR_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–117 PRICING_ATTR_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Pricing_Attr_Rec_Type	Null	Record	No	No

PRICING_ATTR_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–118 PRICING_ATTR_VAL_REC_TYPE

Parameter	Usage	Type	Req	Drv
accumulate	Null	Varchar2	No	No
excluder	Null	Varchar2	No	No
list_line	Null	Varchar2	No	No
pricing_attribute	Null	Varchar2	No	No
product_uom	Null	Varchar2	No	No

PRICING_ATTR_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–119 PRICING_ATTR_VAL_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Pricing_Attr_Val_Rec_ Type	Null	Record	No	No

Validation of Price List Setup API

Standard Validation

Oracle Advanced Pricing validates all required columns in the Price List Setup API. For more information, see: *Oracle Pricing Technical Reference Manual*.

Other Validation

None

Error Handling

If any validation fails, the API will return error status to the calling module. The Price List Setup API processes the rows and reports the values in the following table for every record.

Table 3–120 Error Handling

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	null
Failure	4	actual error message

Example of Price List Setup API

1. The following code can also be found in file QPPLXMP1.sql in $QP_TOP/patch/115/sql directory

```
--set serveroutput on
/*========================================================================
   Sample script which inserts a Price List with 3 price list lines, and the
product information for each of the lines(Product Information is stored in
pricing attributes table in product attribute columns). This sample price list
does not have any qualifiers or price breaks or non product-information type of
pricing attributes.
```

```
This script must be modified by the user such that the qpr_pricing_attr_
tbl(J).product_attr_value columns (for J = 1 to 3) are populated with 3
different valid inventory_item_id from the instance where this script is run.
Please read the Oracle Advanced Pricing User's Guide (Appendix A & B) to
understand the flexfields and seed data.

*************************************************************************/

declare

 gpr_return_status varchar2(1) := NULL;
 gpr_msg_count number := 0;
 gpr_msg_data varchar2(2000);
 gpr_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
 gpr_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
 gpr_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
 gpr_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
 gpr_qualifiers_tbl QP_Qualifier_Rules_Pub.Qualifiers_Tbl_Type;
 gpr_qualifiers_val_tbl QP_Qualifier_Rules_Pub.Qualifiers_Val_Tbl_Type;
 gpr_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
 gpr_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;
 ppr_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
 ppr_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
 ppr_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
 ppr_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
 ppr_qualifiers_tbl QP_Qualifier_Rules_Pub.Qualifiers_Tbl_Type;
 ppr_qualifiers_val_tbl QP_Qualifier_Rules_Pub.Qualifiers_Val_Tbl_Type;
 ppr_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
 ppr_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;

 K number := 1;
 j number := 1;

begin

 --dbms_output.put_line('after get price list ');

   /* set the list_header_id to g_miss_num */

   gpr_price_list_rec.list_header_id := FND_API.G_MISS_NUM;
   gpr_price_list_rec.name := 'Sample1-PL 1024';
   gpr_price_list_rec.list_type_code := 'PRL';
   gpr_price_list_rec.description := 'Sample price list';

/* you can set the currency of price list to whatever, say FRA */
```

```
    gpr_price_list_rec.currency_code := 'USD';
    gpr_price_list_rec.operation := QP_GLOBALS.G_OPR_CREATE;

FOR K IN 1..3 LOOP

    gpr_price_list_line_tbl(K).list_line_id := FND_API.G_MISS_NUM;
    gpr_price_list_line_tbl(K).list_line_type_code := 'PLL';
    gpr_price_list_line_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;
    gpr_price_list_line_tbl(K).operand := 10;
    gpr_price_list_line_tbl(K).arithmetic_operator := 'UNIT_PRICE';

END LOOP;

    /*
product_attr_value stores inventory item id - product_attribute for Item Number
is Pricing_Attribute1 product_attribute_context is ITEM. Each line can have one
or more pricing attributes. PRICE_LIST_LINE_INDEX is used to link the child
(pricing attributes) to the parent(line).
When you have pricing attributes like color, length, width etc, populate the
fields pricing_attribute_context, pricing_attribute, pricing_attr_value_from,
pricing_attr_value_to and   comparison_operator_code ( '=' or 'between') and
repeat the product_attr_value and its attribute and context for each record.
     */
J := 1;

    gpr_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62061';
    gpr_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
    gpr_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
    gpr_pricing_attr_tbl(J).ATTRIBUTE_GROUPING_NO := 1;
    gpr_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 1;
    gpr_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

J := J + 1;

    gpr_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62081';
    gpr_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
```

```
    gpr_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
    gpr_pricing_attr_tbl(J).ATTRIBUTE_GROUPING_NO := 1;
    gpr_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 2;
    gpr_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

J := J + 1;
    gpr_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62083';
    gpr_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
    gpr_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
    gpr_pricing_attr_tbl(J).ATTRIBUTE_GROUPING_NO := 1;
    gpr_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 3;
    gpr_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

--dbms_output.put_line('before process price list ');
```

QP_PRICE_LIST_PUB.Process_Price_List

```
(   p_api_version_number=> 1
,   p_init_msg_list=> FND_API.G_FALSE
,   p_return_values=> FND_API.G_FALSE
,   p_commit=> FND_API.G_FALSE
,   x_return_status=> gpr_return_status
,   x_msg_count=> gpr_msg_count
,   x_msg_data=> gpr_msg_data
,   p_PRICE_LIST_rec=> gpr_price_list_rec
,   p_PRICE_LIST_LINE_tbl=> gpr_price_list_line_tbl
,   p_PRICING_ATTR_tbl=> gpr_pricing_attr_tbl
,   x_PRICE_LIST_rec=> ppr_price_list_rec
,   x_PRICE_LIST_val_rec=> ppr_price_list_val_rec
,   x_PRICE_LIST_LINE_tbl=> ppr_price_list_line_tbl
,   x_PRICE_LIST_LINE_val_tbl=> ppr_price_list_line_val_tbl
,   x_QUALIFIERS_tbl=> ppr_qualifiers_tbl
,   x_QUALIFIERS_val_tbl=> ppr_qualifiers_val_tbl
,   x_PRICING_ATTR_tbl=> ppr_pricing_attr_tbl
,   x_PRICING_ATTR_val_tbl=> ppr_pricing_attr_val_tbl
);

IF gpr_return_status <> FND_API.G_RET_STS_SUCCESS THEN

    RAISE FND_API.G_EXC_UNEXPECTED_ERROR;
```

```
END IF;

    --dbms_output.put_line('after process price list ');

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

    gpr_return_status := FND_API.G_RET_STS_ERROR;

    --Get message count and data

--dbms_output.put_line('err msg 1 is : ' || gpr_msg_data);
Rollback;
    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

--dbms_output.put_line(' msg count 2 is : ' || gpr_msg_count);

    for k in 1 .. gpr_msg_count loop

    gpr_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'
 );
 /*

         oe_msg_pub.Count_And_Get

(   p_count=> gpr_msg_count
,   p_data=> gpr_msg_data
);

*/

--Get message count and data
--dbms_output.put_line('err msg ' || k ||'is:  ' || gpr_msg_data);

null;

end loop;
 Rollback;
    WHEN OTHERS THEN
```

```
    gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

--Get message count and data
--dbms_output.put_line('err msg 3 is : ' || gpr_msg_data);
Rollback;
end;
/
commit;
exit;
```

2. The following code can also be found in file QPPLXMP2.sql in $QP_TOP/patch/115/sql directory

```
--set serveroutput on
/*************************************************************************
   Sample script which inserts a Price List with 3 price list lines, and the
product information for each of the lines(Product Information is stored in
pricing attributes table in product attribute columns), 1 secondary price list,
2 price list qualifiers(Only header level qualifiers supported for pricelists)
and 2 non-product pricing attributes per price list line.
This sample price list does not have any price breaks. This script must be
modified by the user such that the qpr_pricing_attr_tbl(J).product_attr_value
columns are populated with valid inventory_item_id's from the instance where
this script is run. Also the qpr_qualifiers_tbl(I).list_header_id must be
populated with a valid list_header_id of a price list.
For more information, see: Oracle Advanced Pricing User's Guide, Flexfields.

*************************************************************************/
declare

    gpr_return_status varchar2(1) := NULL;
    gpr_msg_count number := 0;
    gpr_msg_data varchar2(2000);
    gpr_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
    gpr_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
    gpr_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
    gpr_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
    gpr_qualifiers_tbl QP_Qualifier_Rules_Pub.Qualifiers_Tbl_Type;
    gpr_qualifiers_val_tbl QP_Qualifier_Rules_Pub.Qualifiers_Val_Tbl_Type;
    gpr_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
    gpr_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;
    ppr_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
    ppr_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
    ppr_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
    ppr_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
```

```
    ppr_qualifier_rules_rec  QP_Qualifier_Rules_Pub.Qualifier_Rules_Rec_Type;
    ppr_qualifier_rules_val_rec  QP_Qualifier_Rules_Pub.Qualifier_Rules_Val_Rec_
    Type;
    ppr_qualifiers_tbl QP_Qualifier_Rules_Pub.Qualifiers_Tbl_Type;
    ppr_qualifiers_val_tbl QP_Qualifier_Rules_Pub.Qualifiers_Val_Tbl_Type;
    ppr_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
    ppr_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;

K number := 1;

J number := 1;

I number := 1;

begin

--dbms_output.put_line('after get price list ');

/* set the list_header_id to g_miss_num */
    gpr_price_list_rec.list_header_id := FND_API.G_MISS_NUM;
    gpr_price_list_rec.name := 'Sample2-PL 1024-16';
    gpr_price_list_rec.list_type_code := 'PRL';
    gpr_price_list_rec.description := 'Sample price list';

/* you can set the currency of price list to whatever, say FRA */
    gpr_price_list_rec.currency_code := 'USD';
    gpr_price_list_rec.operation := QP_GLOBALS.G_OPR_CREATE;

FOR K IN 1..3 LOOP

    gpr_price_list_line_tbl(K).list_line_id := FND_API.G_MISS_NUM;
    gpr_price_list_line_tbl(K).list_line_type_code := 'PLL';
    gpr_price_list_line_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;
    gpr_price_list_line_tbl(K).operand := 10;
    gpr_price_list_line_tbl(K).arithmetic_operator := 'UNIT_PRICE';

END LOOP;

/*
    product_attr_value stores inventory item id - product_attribute for Item
    Number is Pricing_Attribute1 product_attribute_context is ITEM. Each line
    can have one or more pricing attributes. We use PRICE_LIST_LINE_INDEX to
    link the child(pricing attributes) to the parent(line). When you have
    pricing attributes like color, length, width etc, populate the fields
    pricing_attribute_context, pricing_attribute, pricing_attr_value_from,
```

```
    pricing_attr_value_to and comparison_operator_code ( '=' or 'between') and
    repeat the product_attr_value and its attribute and context for each record.
*/

    J := 1;

/* Pricing Attribute( including Product information) record 1for Price List Line
1 */

    gpr_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62061';
    gpr_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
    gpr_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
    gpr_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 1;
    gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE_CONTEXT

:= 'PRICING ATTRIBUTE';

gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE := 'PRICING_ATTRIBUTE16';
--Corresponds to the Pricing Attribute 'Freight Cost'
gpr_pricing_attr_tbl(J).PRICING_ATTR_VALUE_FROM := '100';
gpr_pricing_attr_tbl(J).PRICING_ATTR_VALUE_TO := '200';
gpr_pricing_attr_tbl(J).COMPARISON_OPERATOR_CODE := 'BETWEEN';
gpr_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;
J := J + 1;

/* Pricing Attribute( including Product information) record 2
for Price List Line 1 */

    gpr_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62061';
    gpr_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
    gpr_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
    gpr_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 1;
    gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE_CONTEXT

:= 'PRICING ATTRIBUTE';
gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE := 'PRICING_ATTRIBUTE11';
```

```
- Corresponds to the Pricing Attribute 'Customer Item'

    gpr_pricing_attr_tbl(J).PRICING_ATTR_VALUE_FROM := '3220';
    gpr_pricing_attr_tbl(J).COMPARISON_OPERATOR_CODE := '=';
    gpr_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

    J := J + 1;

/* Pricing Attribute( including Product information) record 1 for Price List
Line 2 */

    gpr_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62081';
    gpr_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
    gpr_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
    gpr_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 2;
    gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE_CONTEXT

    := 'PRICING ATTRIBUTE';

gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE := 'PRICING_ATTRIBUTE12';

-- Corresponds to the Pricing Attribute 'Insurance Cost'
gpr_pricing_attr_tbl(J).PRICING_ATTR_VALUE_FROM := '12.50';
gpr_pricing_attr_tbl(J).COMPARISON_OPERATOR_CODE := '=';
gpr_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

J := J + 1;

/* Pricing Attribute( including Product information) record 2
for Price List Line 2 */

    gpr_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62081';
    gpr_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
    gpr_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
    gpr_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 2;
    gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE_CONTEXT := 'PRICING ATTRIBUTE';
    gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE := 'PRICING_ATTRIBUTE13';
```

```
    -- Corresponds to the Pricing Attribute 'Handling Cost'
    gpr_pricing_attr_tbl(J).PRICING_ATTR_VALUE_FROM := '25.60';
    gpr_pricing_attr_tbl(J).COMPARISON_OPERATOR_CODE := '=';
    gpr_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

J := J + 1;

/* Pricing Attribute( including Product information) record 1
for Price List Line 3 */

    gpr_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62083';
    gpr_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
    gpr_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
    gpr_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 3;
    gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE_CONTEXT := 'PRICING ATTRIBUTE';
    gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE := 'PRICING_ATTRIBUTE14';

-- Corresponds to the Pricing Attribute 'Export Cost'
    gpr_pricing_attr_tbl(J).PRICING_ATTR_VALUE_FROM := '3.50';
    gpr_pricing_attr_tbl(J).COMPARISON_OPERATOR_CODE := '=';
    gpr_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

J := J + 1;

/* Pricing Attribute( including Product information) record 2 for Price List
Line 3 */

    gpr_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62083';
    gpr_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
    gpr_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
    gpr_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 3;
    gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE_CONTEXT := 'PRICING ATTRIBUTE';
    gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE := 'PRICING_ATTRIBUTE15';

-- Corresponds to the Pricing Attribute 'Duty Cost'

    gpr_pricing_attr_tbl(J).PRICING_ATTR_VALUE_FROM := '4.50';
```

```
    gpr_pricing_attr_tbl(J).COMPARISON_OPERATOR_CODE := '=';
    gpr_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

    I := 1;

/* Price List (Header) Level Qualifier record 1  */
gpr_qualifiers_tbl(I).LIST_HEADER_ID := FND_API.G_MISS_NUM;
gpr_qualifiers_tbl(I).EXCLUDER_FLAG := 'N';
gpr_qualifiers_tbl(I).QUALIFIER_GROUPING_NO := 1;
gpr_qualifiers_tbl(I).QUALIFIER_CONTEXT := 'VOLUME';
gpr_qualifiers_tbl(I).QUALIFIER_ATTRIBUTE := 'QUALIFIER_ATTRIBUTE10';
--Corresponds to Qualifier Attribute 'Order Amount'
gpr_qualifiers_tbl(I).QUALIFIER_ATTR_VALUE := '100';
gpr_qualifiers_tbl(I).QUALIFIER_ATTR_VALUE_TO := '200';
gpr_qualifiers_tbl(I).COMPARISON_OPERATOR_CODE  := 'BETWEEN';
gpr_qualifiers_tbl(I).OPERATION := QP_GLOBALS.G_OPR_CREATE;

    I := I + 1;

/* Price List (Header) Level Qualifier record 2 */

    gpr_qualifiers_tbl(I).LIST_HEADER_ID := FND_API.G_MISS_NUM;
    gpr_qualifiers_tbl(I).EXCLUDER_FLAG := 'N';
    gpr_qualifiers_tbl(I).QUALIFIER_GROUPING_NO := 2;
    gpr_qualifiers_tbl(I).QUALIFIER_CONTEXT := 'ORDER';
    gpr_qualifiers_tbl(I).QUALIFIER_ATTRIBUTE := 'QUALIFIER_ATTRIBUTE13';
    --Corresponds to Qualifier Attribute 'Order Category'
    gpr_qualifiers_tbl(I).QUALIFIER_ATTR_VALUE := 'RETURN';
    gpr_qualifiers_tbl(I).COMPARISON_OPERATOR_CODE  := '=';
    gpr_qualifiers_tbl(I).OPERATION := QP_GLOBALS.G_OPR_CREATE;

 --dbms_output.put_line('before process price list ');
```

QP_PRICE_LIST_PUB.Process_Price_List

```
(   p_api_version_number           => 1
,   p_init_msg_list                => FND_API.G_FALSE
,   p_return_values                => FND_API.G_FALSE
,   p_commit=> FND_API.G_FALSE
,   x_return_status=> gpr_return_status
,   x_msg_count=> gpr_msg_count
,   x_msg_data=> gpr_msg_data
,   p_PRICE_LIST_rec=> gpr_price_list_rec
,   p_PRICE_LIST_LINE_tbl=> gpr_price_list_line_tbl
,   p_QUALIFIERS_tbl=> gpr_qualifiers_tbl
```

```
,   p_PRICING_ATTR_tbl=> gpr_pricing_attr_tbl
,   x_PRICE_LIST_rec=> ppr_price_list_rec
,   x_PRICE_LIST_val_rec=> ppr_price_list_val_rec
,   x_PRICE_LIST_LINE_tbl=> ppr_price_list_line_tbl
,   x_PRICE_LIST_LINE_val_tbl=> ppr_price_list_line_val_tbl
,   x_QUALIFIERS_tbl=> ppr_qualifiers_tbl
,   x_QUALIFIERS_val_tbl=> ppr_qualifiers_val_tbl
,   x_PRICING_ATTR_tbl=> ppr_pricing_attr_tbl
,   x_PRICING_ATTR_val_tbl=> ppr_pricing_attr_val_tbl
);
    IF gpr_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

/** Add the following code in the body only if you want to create secondary
price lists as well. Otherwise the above code is sufficient. **/

I := 1;

/* Secondary Price List record 1  */

    gpr_qualifiers_tbl(I).LIST_HEADER_ID := '87013';
    --Corresponds to list_header_id for the Secondary Price List 'Testing 1019'
    gpr_qualifiers_tbl(I).QUALIFIER_CONTEXT := 'MODLIST';
    gpr_qualifiers_tbl(I).QUALIFIER_ATTRIBUTE := 'QUALIFIER_ATTRIBUTE4';
    --Corresponds to Qualifier Attribute 'Price List'
    gpr_qualifiers_tbl(I).QUALIFIER_ATTR_VALUE := ppr_PRICE_LIST_rec.list_
    header_id;
    gpr_qualifiers_tbl(I).COMPARISON_OPERATOR_CODE := '=';
    gpr_qualifiers_tbl(I).OPERATION := QP_GLOBALS.G_OPR_CREATE;
```

QP_QUALIFIER_RULES_PUB.Process_Qualifier_Rules

```
(   p_api_version_number=> 1
,   p_init_msg_list=> FND_API.G_FALSE
,   p_return_values=> FND_API.G_FALSE
,   p_commit=> FND_API.G_FALSE
,   x_return_status=> gpr_return_status
,   x_msg_count=> gpr_msg_count
,   x_msg_data=> gpr_msg_data
,   p_QUALIFIERS_tbl=> gpr_qualifiers_tbl
,   x_QUALIFIER_RULES_rec=> ppr_qualifier_rules_rec
```

```
,   x_QUALIFIER_RULES_val_rec=> ppr_qualifier_rules_val_rec
,   x_QUALIFIERS_tbl=> ppr_qualifiers_tbl
,   x_QUALIFIERS_val_tbl=> ppr_qualifiers_val_tbl
);

IF gpr_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

END IF;

--dbms_output.put_line ('after process price list ');

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

gpr_return_status := FND_API.G_RET_STS_ERROR;

--Get message count and data

--dbms_output.put_line('err msg 1 is : ' || gpr_msg_data);
Rollback;
    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
--dbms_output.put_line(' msg count 2 is : ' || gpr_msg_count);

    for k in 1 .. gpr_msg_count loop
    gpr_msg_data := oe_msg_pub.get( p_msg_index => k,
p_encoded => 'F'
);
    /*
         oe_msg_pub.Count_And_Get
(   p_count=> gpr_msg_count
,   p_data => gpr_msg_data
);

*/

--Get message count and data
--dbms_output.put_line('err msg ' || k ||'is:  ' || gpr_msg_data);
null;
end loop;
        Rollback;
```

```
    WHEN OTHERS THEN

    gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

--Get message count and data
--dbms_output.put_line('err msg 3 is : ' || gpr_msg_data);
Rollback;
end;
/
commit;
exit;
```

3. The following code can also be found in file QPPLXMP3.sql in $QP_TOP/patch/115/sql directory

```
--set serveroutput on
/*************************************************************************
   Sample script which inserts a Price List with 1 price list line    and the
product information for this line (Product Information is stored in pricing
attributes table in product attribute columns), 1 non-product pricing attribute
for the price list line and 1 price list qualifier(Only header level qualifiers
supported for pricelists).
The qualifier and pricing attribute record passes the display value of the
qualifier attribute value and pricing attribute value columns respectively
instead of the hidden id. Simultaneously, the qualifier_attribute and pricing_
attribute segment name must be passed
instead of the pricing attribute itself. This is done using the corresponding
val_tbl structure for qualifiers and pricing attributes.
This script must be run only after applying patch 1473223 to the instance. This
script must also be modified by the user such that the gpr_pricing_attr_val_
tbl(J).PRICING_ATTR_VALUE_FROM_DESC column is populated with a valid 'Customer
Item Number' and the gpr_qualifiers_val_tbl(I). QUALIFIER_ATTR_VALUE_DESC column
is populated with a valid 'Order Category' Description from the instance where
this script is to be run.
For more information, see: Oracle Advanced Pricing User's Guide, Flexfields.
*************************************************************************/
 K number := 1;
 J number := 1;
 I number := 1;

begin


--dbms_output.put_line('after get price list ');
```

```
/* set the list_header_id to g_miss_num */

    gpr_price_list_rec.list_header_id := FND_API.G_MISS_NUM;
    gpr_price_list_rec.name := 'Sample3-PL 1024-21';
    gpr_price_list_rec.list_type_code := 'PRL';
    gpr_price_list_rec.description := 'Sample price list';

/* you can set the currency of price list to whatever, say FRA */

gpr_price_list_rec.currency_code := 'USD';
gpr_price_list_rec.operation := QP_GLOBALS.G_OPR_CREATE;

--Create a Price List Line
K := 1;

gpr_price_list_line_tbl(K).list_line_id := FND_API.G_MISS_NUM;
gpr_price_list_line_tbl(K).list_line_type_code := 'PLL';
gpr_price_list_line_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;
gpr_price_list_line_tbl(K).operand := 10;
gpr_price_list_line_tbl(K).arithmetic_operator := 'UNIT_PRICE';

/*
    product_attr_value stores inventory item id -
    product_attribute for Item Number is Pricing_Attribute1
    product_attribute_context is ITEM .
    Each line can have one or more pricing attributes. we use PRICE_LIST_LINE_
    INDEX to link the child (pricing attributes) to the parent(line).
    When you have pricing attributes like color, length, width etc, populate the
    fields pricing_attribute_context, pricing_attribute, pricing_attr_value_
    from, pricing_attr_value_to and comparison_operator_code ( '=' or 'between')
    and repeat the product_attr_value and its attribute and context for each
    record.
*/

J := 1;

/* Pricing Attribute( including Product information) record for Price List Line
1 */

    gpr_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62061';
    gpr_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
```

```
    gpr_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
    gpr_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 1;
    gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE_CONTEXT
    := 'PRICING ATTRIBUTE';

-- Instead of
-- 'gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE := 'PRICING_ATTRIBUTE11';'
-- the segment name of this pricing attribute is passed using the
-- val_tbl structure as shown below.

gpr_pricing_attr_val_tbl(J).PRICING_ATTRIBUTE_DESC

:= 'CUSTOMER_ITEM_ID';
-- Corresponds to the Pricing Attribute 'Customer Item'
-- Instead of
-- 'gpr_pricing_attr_tbl(J).PRICING_ATTR_VALUE_FROM := '3220';'
-- the display value (from the flex value-set's meaning column)
-- of this pricing attribute value is passed using the val_tbl
-- structure as shown below.


gpr_pricing_attr_val_tbl(J).PRICING_ATTR_VALUE_FROM_DESC
:= 'C01KS';
-- Corresponds to the Customer Item Code for the Item Id 3220.
gpr_pricing_attr_tbl(J).COMPARISON_OPERATOR_CODE := '=';
gpr_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

I := 1;

/* Price List (Header) Level Qualifier record */
gpr_qualifiers_tbl(I).LIST_HEADER_ID := FND_API.G_MISS_NUM;
    gpr_qualifiers_tbl(I).EXCLUDER_FLAG := 'N';
    gpr_qualifiers_tbl(I).QUALIFIER_GROUPING_NO := 1;
    gpr_qualifiers_tbl(I).QUALIFIER_CONTEXT := 'ORDER';

--Instead of
--'gpr_qualifiers_tbl(I).QUALIFIER_ATTRIBUTE := 'QUALIFIER_ATTRIBUTE13';'
--the segment name of this qualifier attribute is passed using the
--val_tbl structure as shown below.

gpr_qualifiers_val_tbl(I).QUALIFIER_ATTRIBUTE_DESC

 := 'ORDER_CATEGORY';
--Corresponds to Qualifier Attribute 'Order Category'
```

```
-- Instead of
-- 'gpr_qualifiers_tbl(I).QUALIFIER_ATTR_VALUE := 'MIXED';'
-- the display value (from the flex value-set's meaning column)
-- of this qualifier attribute value is passed using the val_tbl
-- structure as shown below.

    gpr_qualifiers_val_tbl(I).QUALIFIER_ATTR_VALUE_DESC := 'Mixed';
--Corresponds to the Meaning column for the lookup code 'MIXED'.
    gpr_qualifiers_tbl(I).COMPARISON_OPERATOR_CODE  := '=';
    gpr_qualifiers_tbl(I).OPERATION := QP_GLOBALS.G_OPR_CREATE;

 --dbms_output.put_line('before process price list ');
```

QP_PRICE_LIST_PUB.Process_Price_List

```
(   p_api_version_number=> 1
,   p_init_msg_list=> FND_API.G_FALSE
,   p_return_values=> FND_API.G_FALSE
,   p_commit=> FND_API.G_FALSE
,   x_return_status=> gpr_return_status
,   x_msg_count=> gpr_msg_count
,   x_msg_data=> gpr_msg_data
,   p_PRICE_LIST_rec=> gpr_price_list_rec
,   p_PRICE_LIST_LINE_tbl=> gpr_price_list_line_tbl
,   p_QUALIFIERS_tbl=> gpr_qualifiers_tbl
,   p_QUALIFIERS_val_tbl=> gpr_qualifiers_val_tbl
,   p_PRICING_ATTR_tbl=> gpr_pricing_attr_tbl
,   p_PRICING_ATTR_val_tbl=> gpr_pricing_attr_val_tbl
,   x_PRICE_LIST_rec=> ppr_price_list_rec
,   x_PRICE_LIST_val_rec=> ppr_price_list_val_rec
,   x_PRICE_LIST_LINE_tbl=> ppr_price_list_line_tbl
,   x_PRICE_LIST_LINE_val_tbl=> ppr_price_list_line_val_tbl
,   x_QUALIFIERS_tbl=> ppr_qualifiers_tbl
,   x_QUALIFIERS_val_tbl=> ppr_qualifiers_val_tbl
,   x_PRICING_ATTR_tbl=> ppr_pricing_attr_tbl
,   x_PRICING_ATTR_val_tbl=> ppr_pricing_attr_val_tbl
);

    IF gpr_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

--dbms_output.put_line('after process price list ');
```

```
EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

gpr_return_status := FND_API.G_RET_STS_ERROR;

    --Get message count and data

    --dbms_output.put_line('err msg 1 is : ' || gpr_msg_data);

Rollback;

WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

    gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;
    --dbms_output.put_line(' msg count 2 is : ' || gpr_msg_count);

for k in 1 .. gpr_msg_count loop
    gpr_msg_data := oe_msg_pub.get( p_msg_index => k,
    p_encoded => 'F'

);
/*
    oe_msg_pub.Count_And_Get

    (   p_count=> gpr_msg_count
    ,   p_data=> gpr_msg_data
);

    */
--Get message count and data
--dbms_output.put_line('err msg ' || k ||'is:  ' || gpr_msg_data);
null;

    end loop;
    Rollback;
    WHEN OTHERS THEN

    gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

        --Get message count and data
        --dbms_output.put_line('err msg 3 is : ' || gpr_msg_data);
Rollback;
end;
```

```
/
commit;
exit;
```

4. The following code can also be found in file QPPLXMP4.sql in $qp/patch/115/sql directory:

```
/*$Header: QPPLXMP4.sql 115.3 2000/11/10 00:54:12 rchellam noship $*/
--set serveroutput on

/*************************************************************************
Sample script which inserts a Price List with 1 price list line of type PBH
price break header) and the product information for this line(Product
Information is stored in pricing attributes table in product attribute columns),
a regular pricing attribute(non product) and a Price Break Child Line (To create
a price break child line it is necessary to create a combination of a list line
and a pricing attribute where the pricing attribute can only have the Volume
pricing context and Item Quantity Pricing Attribute).
For more information, see: Oracle Advanced Pricing User's Guide.
*************************************************************************/
declare

    gpr_return_status varchar2(1) := NULL;
    gpr_msg_count number := 0;
    gpr_msg_data varchar2(2000);

    gpr_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
    gpr_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
    gpr_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;

    ppr_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
    ppr_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
    ppr_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
    ppr_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
    ppr_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
    ppr_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;
    ppr_qualifiers_tbl  QP_QUALIFIER_RULES_PUB.Qualifiers_Tbl_Type;
    ppr_qualifiers_val_tbl  QP_QUALIFIER_RULES_PUB.Qualifiers_Val_Tbl_Type;

    K number := 1;
    J number := 1;
    I number := 1;

begin
```

```
    /* set the list_header_id to g_miss_num */

    gpr_price_list_rec.list_header_id := FND_API.G_MISS_NUM;
    gpr_price_list_rec.name := 'Sample4-PL 1109-14';
    gpr_price_list_rec.list_type_code := 'PRL';
    gpr_price_list_rec.description := 'Sample price list';

/* you can set the currency of price list to whatever, say FRA */

    gpr_price_list_rec.currency_code := 'USD';
    gpr_price_list_rec.operation := QP_GLOBALS.G_OPR_CREATE;

--Create a Price List Line of type 'PBH'

    K := 1;

    gpr_price_list_line_tbl(K).list_line_id := FND_API.G_MISS_NUM;
    gpr_price_list_line_tbl(K).list_line_type_code := 'PBH';
    gpr_price_list_line_tbl(K).price_break_type_code := 'POINT';
    gpr_price_list_line_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;
    gpr_price_list_line_tbl(K).operand := 10;
    gpr_price_list_line_tbl(K).arithmetic_operator := 'UNIT_PRICE';

/*
    product_attr_value stores inventory item id -
    product_attribute for Item Number is Pricing_Attribute1
    product_attribute_context is ITEM .
    Each line can have one or more pricing attributes. we use
    PRICE_LIST_LINE_INDEX to link the child(pricing attributes )
    to the parent(line).
    When you have pricing attributes like color, length, width etc,
    populate the fields pricing_attribute_ context, pricing_attribute, pricing_
    attr_value_from, pricing_attr_ value_to and comparison_operator_code ( '='
    or 'between') and repeat the product_attr_value and its attribute and
    context for each record.
*/
    J := 1;

/* Pricing Attribute( with only Product information) record for Price List Line
of type 'PBH' */

    gpr_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
```

```
    gpr_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62081';
    gpr_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
    gpr_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
    gpr_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 1;
    gpr_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

J := J + 1;

/* Pricing Attribute( non Product) record for Price List Line of type 'PBH' */
gpr_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
gpr_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
gpr_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62081';
gpr_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE_CONTEXT := 'PRICING ATTRIBUTE';
gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE := 'PRICING_ATTRIBUTE12';

-- Corresponds to Pricing Attribute 'Insurance Cost'

gpr_pricing_attr_tbl(J).PRICING_ATTR_VALUE_FROM := '12.50';
gpr_pricing_attr_tbl(J).COMPARISON_OPERATOR_CODE := '=';
gpr_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
gpr_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 1;
gpr_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

--Create a Price List Line of type 'PLL', a child price break line

K := K + 1; /* K=2 */
    gpr_price_list_line_tbl(K).list_line_id := FND_API.G_MISS_NUM;
    gpr_price_list_line_tbl(K).list_line_type_code := 'PLL';
    gpr_price_list_line_tbl(K).operation := QP_GLOBALS.G_OPR_CREATE;
    gpr_price_list_line_tbl(K).operand := 10;
    gpr_price_list_line_tbl(K).arithmetic_operator := 'UNIT_PRICE';
    gpr_price_list_line_tbl(K).rltd_modifier_group_no := 1;
    gpr_price_list_line_tbl(K).PRICE_BREAK_HEADER_INDEX := 1;

-- This must point to the PBH line. In this example this is a child of the PBH
above where K=1.
--Create a Pricing Attribute with pricing context as 'Volume' and Pricing
Attribute as 'Item Quantity''
--needed to complete the creation of a child price break line.

    J := J + 1;
```

```
/* Pricing Attribute( with specific pricing attribute context and attribute)
record  for Price List Line of type 'PLL' which is a child Price Break Line */
    gpr_pricing_attr_tbl(J).pricing_attribute_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).list_line_id := FND_API.G_MISS_NUM;
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE_CONTEXT := 'ITEM';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTRIBUTE := 'PRICING_ATTRIBUTE1';
    gpr_pricing_attr_tbl(J).PRODUCT_ATTR_VALUE := '62081';
    gpr_pricing_attr_tbl(J).PRODUCT_UOM_CODE := 'Ea';
    gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE_CONTEXT := 'VOLUME';
    gpr_pricing_attr_tbl(J).PRICING_ATTRIBUTE := 'PRICING_ATTRIBUTE10'; --'Item
    Quantity'
    gpr_pricing_attr_tbl(J).PRICING_ATTR_VALUE_FROM := '10';
    gpr_pricing_attr_tbl(J).PRICING_ATTR_VALUE_TO := '20';
    gpr_pricing_attr_tbl(J).COMPARISON_OPERATOR_CODE := 'BETWEEN';
    gpr_pricing_attr_tbl(J).EXCLUDER_FLAG := 'N';
    gpr_pricing_attr_tbl(J).PRICE_LIST_LINE_INDEX := 2;

--Because this is a pricing attribute of the line K = 2

    gpr_pricing_attr_tbl(J).operation := QP_GLOBALS.G_OPR_CREATE;

--dbms_output.put_line('before process price list ');
```

QP_PRICE_LIST_PUB.Process_Price_List

```
(   p_api_version_number=> 1
,   p_init_msg_list=> FND_API.G_FALSE
,   p_return_values=> FND_API.G_FALSE
,   p_commit=> FND_API.G_FALSE
,   x_return_status=> gpr_return_status
,   x_msg_count=> gpr_msg_count
,   x_msg_data=> gpr_msg_data
,   p_PRICE_LIST_rec=> gpr_price_list_rec
,   p_PRICE_LIST_LINE_tbl=> gpr_price_list_line_tbl
,   p_PRICING_ATTR_tbl=> gpr_pricing_attr_tbl
,   x_PRICE_LIST_rec=> ppr_price_list_rec
,   x_PRICE_LIST_val_rec=> ppr_price_list_val_rec
,   x_PRICE_LIST_LINE_tbl=> ppr_price_list_line_tbl
,   x_PRICE_LIST_LINE_val_tbl=> ppr_price_list_line_val_tbl
,   x_QUALIFIERS_tbl=> ppr_qualifiers_tbl
,   x_QUALIFIERS_val_tbl=> ppr_qualifiers_val_tbl
,   x_PRICING_ATTR_tbl=> ppr_pricing_attr_tbl
,   x_PRICING_ATTR_val_tbl=> ppr_pricing_attr_val_tbl
);
```

```
    IF gpr_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

    END IF;

 --dbms_output.put_line('after process price list ');

    EXCEPTION

        WHEN FND_API.G_EXC_ERROR THEN
        gpr_return_status := FND_API.G_RET_STS_ERROR;

--Get message count and data
--dbms_output.put_line('err msg 1 is : ' || gpr_msg_data);
Rollback;

        WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN
        gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR;

--dbms_output.put_line(' msg count 2 is : ' || gpr_msg_count);

    for k in 1 .. gpr_msg_count loop
    gpr_msg_data := oe_msg_pub.get( p_msg_index => k,

    p_encoded=> 'F'

        );
            /*

    oe_msg_pub.Count_And_Get

    (   p_count=> gpr_msg_count
    ,   p_data=> gpr_msg_data
        );
    */

--Get message count and data
--dbms_output.put_line('err msg ' || k ||'is:  ' || gpr_msg_data);

    null;

    end loop;
Rollback;
```

```
    WHEN OTHERS THEN
    gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

--Get message count and data
--dbms_output.put_line('err msg 3 is : ' || gpr_msg_data);
Rollback;
    end;
    /
    commit;
    exit;
```

5. The following code can also be found in file QPPLXMP5.sql in $QP_TOP/patch/115/sql directory:

```
    --set serveroutput on

    /*************************************************************************
       Sample script to which updates the list price on a Price List Line ,

    This script must be modified by the user such that the qpr_list_line_
    tbl(K).list_line_id column is populated with a valid list_line_id from the
    instance where this script is run.

    Please read the Oracle Advanced Pricing User's Guide (Appendix A & B) to
    understand the flexfields and seed data.
    *************************************************************************
    /

declare

 gpr_return_status varchar2(1) := NULL;
 gpr_msg_count number := 0;
 gpr_msg_data varchar2(2000);
 gpr_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
 gpr_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;

 ppr_price_list_rec QP_PRICE_LIST_PUB.Price_List_Rec_Type;
 ppr_price_list_val_rec QP_PRICE_LIST_PUB.Price_List_Val_Rec_Type;
 ppr_price_list_line_tbl QP_PRICE_LIST_PUB.Price_List_Line_Tbl_Type;
 ppr_price_list_line_val_tbl QP_PRICE_LIST_PUB.Price_List_Line_Val_Tbl_Type;
 ppr_qualifiers_tbl QP_Qualifier_Rules_Pub.Qualifiers_Tbl_Type;
 ppr_qualifiers_val_tbl QP_Qualifier_Rules_Pub.Qualifiers_Val_Tbl_Type;
 ppr_pricing_attr_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Tbl_Type;
 ppr_pricing_attr_val_tbl QP_PRICE_LIST_PUB.Pricing_Attr_Val_Tbl_Type;
```

```
 K number := 1;

begin

/* Populate the list_line_id (PK) of the price list line whose list_price is to
be updated, the operation and the columns to be updated with the new values. All
other values are not required to be populated.*/

K := 1;

    gpr_price_list_line_tbl(K).list_line_id := 293195;

-- Corresponds to a the item 'dw01' on Price List 'Testing 1023'

    gpr_price_list_line_tbl(K).operation := QP_GLOBALS.G_OPR_UPDATE;
    gpr_price_list_line_tbl(K).operand := 25;

--The operand column corresponds to the listprice on a pricelist line.
--dbms_output.put_line('before process price list ');
```

QP_PRICE_LIST_PUB.Process_Price_List

```
(   p_api_version_number=> 1
,   p_init_msg_list=> FND_API.G_FALSE
,   p_return_values=> FND_API.G_FALSE
,   p_commit=> FND_API.G_FALSE
,   x_return_status=> gpr_return_status
,   x_msg_count=> gpr_msg_count
,   x_msg_data=> gpr_msg_data
,   p_PRICE_LIST_LINE_tbl=> gpr_price_list_line_tbl
,   x_PRICE_LIST_rec=> ppr_price_list_rec
,   x_PRICE_LIST_val_rec=> ppr_price_list_val_rec
,   x_PRICE_LIST_LINE_tbl=> ppr_price_list_line_tbl
,   x_PRICE_LIST_LINE_val_tbl=> ppr_price_list_line_val_tbl
,   x_QUALIFIERS_tbl=> ppr_qualifiers_tbl
,   x_QUALIFIERS_val_tbl=> ppr_qualifiers_val_tbl
,   x_PRICING_ATTR_tbl=> ppr_pricing_attr_tbl
,   x_PRICING_ATTR_val_tbl=> ppr_pricing_attr_val_tbl
);


IF gpr_return_status <> FND_API.G_RET_STS_SUCCESS THEN
```

```
    RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

END IF;

--dbms_output.put_line('after process price list ');

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

        gpr_return_status := FND_API.G_RET_STS_ERROR;

    --Get message count and data

    --dbms_output.put_line('err msg 1 is : ' || gpr_msg_data);
Rollback;

WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

    gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

    --dbms_output.put_line(' msg count 2 is : ' || gpr_msg_count);

        for k in 1 .. gpr_msg_count loop

        gpr_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'

);
        /*

        oe_msg_pub.Count_And_Get
    (   p_count=> gpr_msg_count
    ,   p_data=> gpr_msg_data
);

*/

    --  Get message count and data

    --dbms_output.put_line('err msg ' || k ||'is:  ' || gpr_msg_data);

null;
```

```
end loop;
    Rollback;
    WHEN OTHERS THEN

        gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

--Get message count and data
    --dbms_output.put_line('err msg 3 is : ' || gpr_msg_data);
Rollback;
end;
/
commit;
exit;
```

See

Oracle Pricing Technical Reference Manual

Price List Setup Group Application Program Interface

This section explains how to use the Price List Setup Group API and how it functions in Oracle Advanced Pricing. The Price List Setup package consists of entities to set up price lists.

Functional Overview

The Price List Setup package QP_Price_List_GRP.Process_Price_List contains the following public record type and table of records entities:

- Process_Price_List: QP_Price_List_GRP.Process_Price_List:Takes two record types and six table types as input parameters. Use this API to insert, update, and delete price lists and to set up a price list for a given p_PRICE_LIST_rec record structure.

You can:

- Set up multiple price list lines by giving multiple price list line definitions in the p_ PRICE_LIST_LINE_tbl table structure.
- Attach multiple qualifiers at the price list header level by giving multiple qualifiers in the p_QUALIFIERS_tbl table structure.
- Attach multiple pricing attributes to price list lines by giving the pricing attributes in the p_PRICING_ATTR_tbl table structure.
- Price_List_Rec_Type: Corresponds to the columns in the price list header tables QP_ LIST_HEADERS_B and QP_LIST_HEADERS_TL.
- Price_List_Val_Rec_Type: Attributes that store the meaning of id or code columns in the price list header table QP_LIST_HEADERS_B, for example, Currency.
- Price_List_Line_Rec_Type: Corresponds to columns in the price list line table and related modifiers tables QP_LIST_LINES and QP_RLTD_MODIFIERS.
- Price_List_Line_Tbl_Type: Table of Price_List_Line_Rec_Type.
- Price_List_Line_Val_Rec_Type: Attributes that store the meaning of id or code columns in the price list line table QP_LIST_LINES, for example, Price_By_ Formula.
- Price_List_Line_Val_Tbl_Type: Table of Price_List_Line_Val_Rec_Type.
- Qualifiers_Rec_Type: Corresponds to the columns in the qualifier table QP_ QUALIFIERS.

- Qualifiers_Tbl_Type: Table of Qualifiers_Rec_Type.
- Qualifiers_Val_Rec_Type: Made up of attributes that store the meaning of id or code columns in the qualifiers table QP_QUALIFIERS, for example, Qualifier_ Rule.
- Qualifiers_Val_Tbl_Type: Table of Qualifiers_Val_Rec_Type.
- Pricing_Attr_Rec_Type: Corresponds to the columns in the pricing attributes table QP_PRICING_ATTRIBUTES.
- Pricing_Attr_Tbl_Type: Table of Pricing_Attr_Rec_Type.
- Pricing_Attr_Val_Rec_Type: Attributes that store the meaning of id or code columns in the pricing attributes table QP_PRICING_ATTRIBUTES, for example, Accumulate.
- Pricing_Attr_Val_Tbl_Type: Table of Pricing_Attr_Val_Rec_Type.

Setting Up and Parameter Descriptions

The following chart describes all parameters used by the Price List Group API. All of the inbound and outbound parameters are listed. Additional information on these parameters may follow.

PROCESS_PRICE_LIST

The following table shows the parameters for this structure.

Table 3–121 PROCESS_PRICE_LIST

Parameter	Usage	Type	Req	Drv
p_api_version_number	In	Number	No	No
p_init_msg_list	In	Varchar2	No	No
p_return_values	In	Varchar2	No	No
p_commit	In	Varchar2	No	No
x_return_status	Out	Varchar2	No	No
x_msg_count	Out	Number	No	No
x_msg_data	Out	Varchar2	No	No
p_PRICE_LIST_rec	In	Price_List_Rec_ Type	No	No
p_PRICE_LIST_val_rec	In	Price_List_Val_ Rec_Type	No	No

Table 3–121 PROCESS_PRICE_LIST

Parameter	Usage	Type	Req	Drv
p_PRICE_LIST_tbl	In	Price_List_Line_ tbl_type	No	No
p_PRICE_LIST_val_tbl	In	Price_List_Line_Val_tbl_type	No	No
p_QUALIFIERS_tbl	In	QP_Qualifier_Rules_PUB.Qualifiers_tbl_Type	No	No
p_QUALIFIERS_val_tbl	In	QP_Qualifier_Rules_PUB.Qualifiers_val_tbl_ Type	No	No
p_PRICING_ATTR_tbl	In	Pricing_Attr_tbl_type	No	No
p_PRICING_ATTR_val_tbl	In	Pricing_Attr_val_tbl_type	No	No
x_PRICE_LIST_rec	Out	Price_List_Rec_Type	No	No
x_ PRICE_LIST_val_rec	Out	Price_List_Val_Rec_Type	No	No
x_PRICE_LIST_LINE_tbl	Out	Price_List_Line_tbl_type	No	No
x_PRICE_LIST_LINE_val_tbl	Out	Price_List_Line_Val_tbl_type	No	No
x_QUALIFIERS_tbl	Out	QP_Qualifier_Rules_PUB.Qualifiers_tbl_Type	No	No
x_QUALIFIERS_val_tbl	Out	QP_Qualifier_Rules_PUB.Qualifiers_ val_tbl_ Type	No	No
x_PRICING_ATTR_tbl	Out	Pricing_Attr_tbl_type	No	No
x_PRICING_ATTR_val_tbl	Out	Pricing_Attr_val_tbl_type	No	No

A key of the short names and definitions used in the API tables are provided in the following table:

Table 3–122 Short Name Key

Short name	Definition
Drv	Derived
Req	Required Yes : This is a required parameter. No : This is an optional parameter.
N/A (no entry)	No value/not applicable

PRICE_LIST_REC_TYPE

The following table shows the parameters for this structure.

Table 3–123 PRICE_LIST_REC_TYPE

Parameter	Usage	Type	Req	Drv
Attribute1	Null	Varchar2	No	No
Attribute2	Null	Varchar2	No	No
Attribute3	Null	Varchar2	No	No
Attribute4	Null	Varchar2	No	No
Attribute5	Null	Varchar2	No	No
Attribute6	Null	Varchar2	No	No
Attribute7	Null	Varchar2	No	No
Attribute8	Null	Varchar2	No	No
Attribute9	Null	Varchar2	No	No
Attribute10	Null	Varchar2	No	No
Attribute11	Null	Varchar2	No	No
Attribute12	Null	Varchar2	No	No
Attribute13	Null	Varchar2	No	No
Attribute14	Null	Varchar2	No	No
Attribute15	Null	Varchar2	No	No
automatic_flag	Null	Varchar2	No	No
comments	Null	Varchar2	No	No
context	Null	Varchar2	No	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
currency_code	Null	Varchar2	Yes	No
discount_lines_flag	Null	Varchar2	No	No
end_date_active	Null	Date	No	No
freight_terms_code	Null	Varchar2	No	No
gsa_indicator	Null	Varchar2	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No

Table 3–123 PRICE_LIST_REC_TYPE

Parameter	Usage	Type	Req	Drv
last_update_login	Null	Number	No	No
list_header_id	Null	Number	No	No
list_type_code	Null	Varchar2	No	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No
prorate_flag	Null	Varchar2	No	No
request_id	Null	Number	No	No
rounding_factor	Null	Number	No	No
ship_method_code	Null	Varchar2	No	No
start_date_active	Null	Date	No	No
terms_id	Null	Number	No	No
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	Yes	No
name	Null	Varchar2	Yes	No
description	Null	Varchar2	No	No
version_no	Null	Varchar2	No	No
Active_flag	Null	Varchar2	No	No
mobile_download	Null	Varchar2	No	No
currency_header_id	Null	Number	No	No
list_source_code	Null	Varchar2	No	No
orig_system_header_ref	Null	Varchar2	No	No
global_flag	Null	Varchar2	No	No
orig_org_id	Null	Number	No	No

PRICE_LIST_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–124 PRICE_LIST_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Price_List_Rec_Type	Null	Record	No	No

PRICE_LIST_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–125 PRICE_LIST_VAL_REC_TYPE

Parameter	Usage	Type	Req	Drv
automatic	Null	Varchar2	No	No
Currency	Null	Varchar2	No	No
discount_lines	Null	Varchar2	No	No
freight_terms	Null	Varchar2	No	No
list_header	Null	Varchar2	No	No
list_type	Null	Varchar2	No	No
Prorate	Null	Varchar2	No	No
ship_method	Null	Varchar2	No	No
Terms	Null	Varchar2	No	No
currency_header	Null	Varchar2	No	No

PRICE_LIST_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–126 PRICE_LIST_VAL_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Price_List_Val_Rec_Type	Null	Record	No	No

PRICE_LIST_LINE_REC_TYPE

The following table shows the parameters for this structure.

Table 3–127 PRICE_LIST_LINE_REC_TYPE

Parameter	Usage	Type	Req	Drv
accrual_qty	Null	Number	No	No
accrual_uom_code	Null	Varchar2	No	No
arithmetic_operator	Null	Varchar2	No	No
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
Attribute6	Null	Varchar2	No	No
Attribute7	Null	Varchar2	No	No
Attribute8	Null	Varchar2	No	No
Attribute9	Null	Varchar2	No	No
Attribute10	Null	Varchar2	No	No
Attribute11	Null	Varchar2	No	No
Attribute12	Null	Varchar2	No	No
Attribute13	Null	Varchar2	No	No
Attribute14	Null	Varchar2	No	No
Attribute15	Null	Varchar2	No	No
automatic_flag	Null	Varchar2	No	No
base_qty	Null	Number	No	No
base_uom_code	Null	Varchar2	No	No
comments	Null	Varchar2	No	No
context	Null	Varchar2	No	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
effective_period_uom	Null	Varchar2	No	No
end_date_active	Null	Date	No	No

Table 3–127 PRICE_LIST_LINE_REC_TYPE

Parameter	Usage	Type	Req	Drv
estim_accrual_rate	Null	Number	No	No
generate_using_formula_id	Null	Number	No	No
inventory_item_id	Null	Number	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
list_header_id	Null	Number	No	No
list_line_id	Null	Number	No	No
list_line_type_code	Null	Varchar2	No	No
list_price	Null	Number	No	No
modifier_level_code	Null	Varchar2	No	No
number_effective_periods	Null	Number	No	No
operand	Null	Number	No	No
organization_id	Null	Number	No	No
override_flag	Null	Varchar2	No	No
percent_price	Null	Number	No	No
price_break_type_code	Null	Varchar2	No	No
price_by_formula_id	Null	Number	No	No
primary_uom_flag	Null	Varchar2	No	No
print_on_invoice_flag	Null	Varchar2	No	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No

Table 3–127 PRICE_LIST_LINE_REC_TYPE

Parameter	Usage	Type	Req	Drv
rebate_trxn_type_code	Null	Varchar2	No	No
related_item_id	Null	Number	No	No
relationship_type_id	Null	Number	No	No
reprice_flag	Null	Varchar2	No	No
request_id	Null	Number	No	No
revision	Null	Varchar2	No	No
revision_date	Null	Date	No	No
revision_reason_code	Null	Varchar2	No	No
start_date_active	Null	Date	No	No
substitution_attribute	Null	Varchar2	No	No
substitution_context	Null	Varchar2	No	No
substitution_value	Null	Varchar2	No	No
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	No	No
from_rltd_modifier_id	Null	Number	No	No
rltd_modifier_group_no	Null	Number	No	No
product_precedence	Null	Number	No	No

PRICE_LIST_LINE_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–128 PRICE_LIST_LINE_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Price_List_Line_Rec_Type	Null	Record	No	No

PRICE_LIST_LINE_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–129 PRICE_LIST_LINE_VAL_REC_TYPE

Parameter	Usage	Type	Req	Drv
accrual_uom	Null	Varchar2	No	No
automatic	Null	Varchar2	No	No
base_uom	Null	Varchar2	No	No
generate_using_formula	Null	Varchar2	No	No
inventory_item	Null	Varchar2	No	No
list_header	Null	Varchar2	No	No
list_line	Null	Varchar2	No	No
list_line_type	Null	Varchar2	No	No
modifier_level	Null	Varchar2	No	No
organization	Null	Varchar2	No	No
override	Null	Varchar2	No	No
price_break_type	Null	Varchar2	No	No
price_by_formula	Null	Varchar2	No	No
primary_uom	Null	Varchar2	No	No
print_on_invoice	Null	Varchar2	No	No
rebate_transaction_type	Null	Varchar2	No	No
related_item	Null	Varchar2	No	No
relationship_type	Null	Varchar2	No	No
reprice	Null	Varchar2	No	No
revision_reason	Null	Varchar2	No	No

PRICE_LIST_LINE_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–130 PRICE_LIST_LINE_VAL_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Price_List_Line_Val_Rec_Type	Null	Record	No	No

QUALIFIERS_REC_TYPE

The following table shows the parameters for this structure.

Table 3–131 QUALIFIERS_REC_TYPE

Parameter	Usage	Type	Req	Drv
QP_Qualifier_Rules_ PUB.Qualifiers_Rec_Type	Null	Record	No	No

Refer to the Qualifiers public API for the definition.

QUALIFIERS_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–132 QUALIFIERS_TBL_TYPE

Parameter	Usage	Type	Req	Drv
QP_Qualifier_Rules_ PUB.Qualifiers_Tbl_Type	Null	Record	No	No

Refer to the Qualifiers public API for the definition.

QUALIFIERS_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–133 QUALIFIERS_VAL_REC_TYPE

Parameter	Usage	Type	Req	Drv
QP_Qualifier_Rules_PUB.Qualifiers_Val_Rec_Type	Null	Record	No	No

Refer to the Qualifiers public API for the definition.

QUALIFIERS_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–134 QUALIFIERS_VAL_TBL_TYPE

Parameter	Usage	Type	Req	Drv
QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type	Null	Record	No	No

Refer to the Qualifiers public API for the definition.

Note: For setting up Secondary Price List, Create a qualifier with the parameters:

QUALIFIER_CONTEXT - 'MODLIST'

QUALIFIER_ATTRIBUTE - 'QUALIFIER_ATTRIBUTE4'

QUALIFIER_ATTR_VALUE - <list_header_id of the primary price list>

LIST_HEADER_ID - <list_header_id of the secondary price list>

COMPARISON_OPERATOR_CODE - '='.

See the Example 2 for the details about how to setup a Secondary Price List.

PRICING_ATTR_REC_TYPE

The following table shows the parameters for this structure.

Table 3–135 PRICING_ATTR_REC_TYPE

Parameter	Usage	Type	Req	Drv
accumulate_flag	Null	Varchar2	No	No
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No

Table 3–135 PRICING_ATTR_REC_TYPE

Parameter	Usage	Type	Req	Drv
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No
attribute_grouping_number	Null	Number	No	No
Context	Null	Varchar2	No	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
excluder_flag	Null	Varchar2	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
list_line_id	Null	Number	No	No
pricing_attribute	Null	Varchar2	No	No
pricing_attribute_context	Null	Varchar2	No	No
pricing_attribute_id	Null	Number	No	No
pricing_attr_value_from	Null	Varchar2	No	No
pricing_attr_value_to	Null	Varchar2	No	No
product_attribute	Null	Varchar2	Yes	No
product_attribute_context	Null	Varchar2	Yes	No
product_attr_value	Null	Varchar2	Yes	No
product_uom_code	Null	Varchar2	Yes	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No

Table 3–135 PRICING_ATTR_REC_TYPE

Parameter	Usage	Type	Req	Drv
request_id	Null	Number	No	No
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
Operation	Null	Varchar2	Yes	No
PRICE_LIST_LINE_index	Null	Number	No	No
from_rltd_modifier_id	Null	Number	No	No
comparison_operator_code	Null	Varchar2	Yes	No
product_attribute_datatype	Null	Varchar2	No	Yes
pricing_attribute_datatype	Null	Varchar2	No	Yes

PRICING_ATTR_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–136 PRICING_ATTR_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Pricing_Attr_Rec_Type	Null	Record	No	No

PRICING_ATTR_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–137 PRICING_ATTR_VAL_REC_TYPE

Parameter	Usage	Type	Req	Drv
Accumulate	Null	Varchar2	No	No
Excluder	Null	Varchar2	No	No
list_line	Null	Varchar2	No	No
pricing_attribute	Null	Varchar2	No	No
product_uom	Null	Varchar2	No	No

PRICING_ATTR_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–138 PRICING_ATTR_VAL_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Pricing_Attr_Val_Rec_Type	Null	Record	No	No

Validation of Price List Group API

Standard Validation

Oracle Advanced Pricing validates all required columns in the Price List Group API. For more information, see: *Oracle Pricing Technical Reference Manual*.

Other Validation

None

Error Handling

If any validation fails, the API will return error status to the calling module. The Price List Group API processes the rows and reports the values in the following table for every record.

Table 3–139 Error Handling

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	null
Failure	4	actual error message

Price Request Application Program Interface

This section explains how to use the Price Request API and how it functions in Oracle Pricing. The Price Request group API has procedures to be called to pass the request information to the pricing engine. This API also has the different constants that the pricing engine uses for error status, codes and so on.

Price Request API Features

The Price Request Application Program Interface (API) is a public API that allows you to get a base price and to apply price adjustments, other benefits, and charges to a transaction.

Oracle Applications products request it for pricing calculations and you can request it from custom applications and legacy systems.

A pricing request consists of numerous price request lines which mirror the transaction lines of the calling application and may include a transaction header request line. Since it is PL/SQL based, the Pricing Request processes one pricing request per call.

To properly use the Price Request Application Program Interface, pass all lines that need prices and that the pricing engine needs to consider as part of pricing request. For example, you may have frozen the price of one order line but, if you include it in the pricing request, the pricing engine may be able to use the quantity on that line to qualify the order to receive another discount based on quantities across multiple lines.

The Price Request Application Program Interface consists of two engines:

- Search engine: Uses qualifiers and pricing attributes passed from the calling application to select the price list lines and the modifier list lines that may apply to the pricing request. As part of this process, the search engine uses rules of eligibility, incompatibility, exclusivity, and precedence.

  For each pricing phase the search engine executes the following functions:

  - Selects eligible price list lines and modifier list lines using predefined pricing rules.
  - Resolve incompatibilities among eligible benefits.
  - Applies the eligible benefits to the pricing request.
- Calculation engine: For each pricing request line and its associated pricing request line details, calculates the base price, adjusted price, and extended price.

You can call one or both of the engines by setting the calculate flag on the control record.

Functional Overview

The Price Request public API QP_PREQ_PUB contains the following entities: PRICE_REQUEST

- CONTROL_RECORD_TYPE: Parameters which control the behavior of the pricing engine.
- LINE_REC_TYPE: A record which contains the elements in the calling application that requires a base and adjusted price. It may equate to a transaction line or transaction header record in the calling application.
- LINE_DETAIL_REC_TYPE: A record that contains the details of the derivation of the base and adjusted prices. Each pricing request line detail provides details for a price list line or modifier list line. The pricing engine may apply many pricing request line detail records to a pricing request.
- QUAL_REC_TYPE: A record that contains qualifier information. Qualifier information helps the pricing engine to determine the price list lines and modifier list lines for which a pricing request is eligible. The pricing engine returns all qualifiers that determined eligibility on the request line detail record.
- LINE_ATTR_REC_TYPE: A record that contains pricing attributes. Pricing attribute information helps the pricing engine to determine the price list lines and modifier list lines for which a pricing request is eligible. The calling application must load all pricing attributes into this record type that the pricing engine should use to determine if a pricing request line qualifies for a price or modifier.
- RELATED_LINES_REC_TYPE: A record that contains relationships between request lines and between request lines and request line details. Types of relationships are as follows:
- PBH_LINE: Relates a price break header to modifier price break lines.
- SERVICE_LINE: Relates an order line for a service item and its parent, the serviceable item. The pricing engine needs to know this relationship when it must price service items based on a percent of the serviceable item price.
- GENERATED_LINE: Indicates the lines—both request and detail that a pricing request line or pricing request detail line created.

Setting Up and Parameter Descriptions

The following chart describes all parameters used by the public Price Request. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Insert_Lines2

This API takes the request line information and does a bulk insert into the pricing temporary table which holds the request lines, qp_preq_lines_tmp. Each of the input parameter is a pl/sql table to enable the bulk insert. In case there is an error, this API returns x_return_status as FND_API.G_RET_STS_ERROR.

QP_PREQ_GRP.INSERT_LINES2

Table 3–140 QP_PREQ_GRP.INSERT_LINES2

Parameter	Usage	Type
p_LINE_INDEX	In	QP_PREQ_GRP.PLS_INTEGER_TYPE,
p_LINE_TYPE_CODE	In	QP_PREQ_GRP.VARCHAR_TYPE,
p_PRICING_EFFECTIVE_DATE	In	QP_PREQ_GRP.DATE_TYPE
p_ACTIVE_DATE_FIRST	In	QP_PREQ_GRP.DATE_TYPE
p_ACTIVE_DATE_FIRST_TYPE	In	QP_PREQ_GRP.VARCHAR_TYPE,
p_ACTIVE_DATE_SECOND	In	QP_PREQ_GRP.DATE_TYPE
p_ACTIVE_DATE_SECOND_ TYPE	In	QP_PREQ_GRP.VARCHAR_TYPE ,
p_LINE_QUANTITY	In	QP_PREQ_GRP.NUMBER_TYPE ,
p_LINE_UOM_CODE	In	QP_PREQ_GRP.VARCHAR_TYPE,
p_REQUEST_TYPE_CODE	In	QP_PREQ_GRP.VARCHAR_TYPE,
p_PRICED_QUANTITY	In	QP_PREQ_GRP.NUMBER_TYPE,
p_PRICED_UOM_CODE	In	QP_PREQ_GRP.VARCHAR_TYPE,
p_CURRENCY_CODE	In	QP_PREQ_GRP.VARCHAR_TYPE,
p_UNIT_PRICE	In	QP_PREQ_GRP.NUMBER_TYPE,
p_PERCENT_PRICE	In	QP_PREQ_GRP.NUMBER_TYPE,
p_UOM_QUANTITY	In	QP_PREQ_GRP.NUMBER_TYPE,
p_ADJUSTED_UNIT_PRICE	In	QP_PREQ_GRP.NUMBER_TYPE,

Table 3–140 QP_PREQ_GRP.INSERT_LINES2

Parameter	Usage	Type
p_UPD_ADJUSTED_UNIT_PRICE	In	QP_PREQ_GRP.NUMBER_TYPE,
p_PROCESSED_FLAG	In	QP_PREQ_GRP.VARCHAR_TYPE,
p_PRICE_FLAG	In	QP_PREQ_GRP.VARCHAR_TYPE,
p_LINE_ID	In	QP_PREQ_GRP.NUMBER_TYPE,
p_PROCESSING_ORDER	In	QP_PREQ_GRP.PLS_INTEGER_TYPE,
p_PRICING_STATUS_CODE	In	QP_PREQ_GRP.VARCHAR_TYPE,
p_PRICING_STATUS_TEXT	In	QP_PREQ_GRP.VARCHAR_TYPE,
p_ROUNDING_FLAG	In	QP_PREQ_GRP.FLAG_TYPE,
p_ROUNDING_FACTOR	In	QP_PREQ_GRP.PLS_INTEGER_TYPE,
p_QUALIFIERS_EXIST_FLAG	In	QP_PREQ_GRP.VARCHAR_TYPE,
p_PRICING_ATTRS_EXIST_FLAG	In	QP_PREQ_GRP.VARCHAR_TYPE,
p_PRICE_LIST_ID	In	QP_PREQ_GRP.NUMBER_TYPE,
p_VALIDATED_FLAG	In	QP_PREQ_GRP.VARCHAR_TYPE,
p_PRICE_REQUEST_CODE	In	QP_PREQ_GRP.VARCHAR_TYPE,
p_USAGE_PRICING_TYPE	In	QP_PREQ_GRP.VARCHAR_TYPE,
p_LINE_CATEGORY	In	QP_PREQ_GRP.VARCHAR_TYPE := QP_ PREQ_GRP.G_LINE_CATEGORY_DEF_TBL
x_status_code	OUT	VARCHAR2
x_status_text	OUT	VARCHAR2

For information on each of these parameters, refer the LINE_REC_TYPE defined in this manual under the price_request API.

Insert_Line_Attrs2

This API takes the attribute information and does a bulk insert into the pricing temporary table which holds the request line attributes, qp_preq_line_attrs_tmp. Each of the input parameter is a pl/sql table to enable the bulk insert. In case there is an error, this API returns x_return_status as FND_API.G_RET_STS_ERROR.

QP_PREQ_GRP.INSERT_LINE_ATTRS2

Table 3–141 QP_PREQ_GRP.INSERT_LINE_ATTRS2

Parameter	Type
p_LINE_INDEX_tbl	QP_PREQ_GRP.pls_integer_type
p_LINE_DETAIL_INDEX_tbl	QP_PREQ_GRP.pls_integer_type
p_ATTRIBUTE_LEVEL_tbl	QP_PREQ_GRP.varchar_type
p_ATTRIBUTE_TYPE_tbl	QP_PREQ_GRP.varchar_type
p_LIST_HEADER_ID_tbl	QP_PREQ_GRP.number_type
p_LIST_LINE_ID_tbl	QP_PREQ_GRP.number_type
p_CONTEXT_tbl	QP_PREQ_GRP.varchar_type
p_ATTRIBUTE_tbl	QP_PREQ_GRP.varchar_type
p_VALUE_FROM_tbl	QP_PREQ_GRP.varchar_type
p_SETUP_VALUE_FROM_tbl	QP_PREQ_GRP.varchar_type
p_VALUE_TO_tbl	QP_PREQ_GRP.varchar_type
p_SETUP_VALUE_TO_tbl	QP_PREQ_GRP.varchar_type
p_GROUPING_NUMBER_tbl	QP_PREQ_GRP.pls_integer_type
p_NO_QUALIFIERS_IN_GRP_tbl	QP_PREQ_GRP.pls_integer_type
p_COMPARISON_OPERATOR_TYPE_tbl	QP_PREQ_GRP.varchar_type
p_VALIDATED_FLAG_tbl	QP_PREQ_GRP.varchar_type
p_APPLIED_FLAG_tbl	QP_PREQ_GRP.varchar_type
p_PRICING_STATUS_CODE_tbl	QP_PREQ_GRP.varchar_type
p_PRICING_STATUS_TEXT_tbl	QP_PREQ_GRP.varchar_type
p_QUALIFIER_PRECEDENCE_tbl	QP_PREQ_GRP.pls_integer_type
p_DATATYPE_tbl	QP_PREQ_GRP.varchar_type
p_PRICING_ATTR_FLAG_tbl	QP_PREQ_GRP.varchar_type
p_QUALIFIER_TYPE_tbl	QP_PREQ_GRP.varchar_type
p_PRODUCT_UOM_CODE_TBL	QP_PREQ_GRP.varchar_type
p_EXCLUDER_FLAG_TBL	QP_PREQ_GRP.varchar_type
p_PRICING_PHASE_ID_TBL	QP_PREQ_GRP.pls_integer_type
p_INCOMPATABILITY_GRP_CODE_TBL	QP_PREQ_GRP.varchar_type

Table 3–141 QP_PREQ_GRP.INSERT_LINE_ATTRS2

Parameter	Type
p_LINE_DETAIL_TYPE_CODE_TBL	QP_PREQ_GRP.varchar_type
p_MODIFIER_LEVEL_CODE_TBL	QP_PREQ_GRP.varchar_type
p_PRIMARY_UOM_FLAG_TBL	QP_PREQ_GRP.varchar_type
x_status_code	OUT VARCHAR2
x_status_text	OUT VARCHAR2);

For more information on each of these input parameters, refer to the line_attr_rec_ type in the price_request API.

PRICE_REQUEST

The Derived value for each parameter is Null.

Table 3–142 PRICE_REQUEST

Parameter	Usage	Type	Req
p_line_tbl	In	LINE_TBL_ TYPE	Yes
p_qual_tbl	In	QUAL_TBL_ TYPE	No
p_line_attr_tbl	In	LINE_ATTR_ TBL_TYPE	No
p_line_detail_tbl	In	LINE_DETAIL_ TBL_TYPE	No
p_line_detail_qual_tbl	In	LINE_DETAIL_ QUAL_TBL_ TYPE	No
p_line_detail_attr_tbl	In	LINE_DETAIL_ ATTR_TBL_ TYPE	No
p_related_lines_tbl	In	RELATED_LINES_TBL_ TYPE	No (req. for Service Line Pricing)
p_control_rec	In	CONTROL_ RECORD_TYPE	Yes
x_line_tbl	Out	LINE_TBL_ TYPE	Yes
x_qual_tbl	Out	QUAL_TBL_ TYPE	No
x_line_attr_tbl	Out	LINE_ATTR_ TBL_TYPE	No
x_line_detail_tbl	Out	LINE_DETAIL_ TBL_TYPE	Yes
x_line_detail_qual_tbl	Out	LINE_DETAIL_ QUAL_TBL_ TYPE	No

Table 3–142 PRICE_REQUEST

Parameter	Usage	Type	Req
x_line_detail_attr_tbl	Out	LINE_DETAIL_ ATTR_TBL_ TYPE	No
x_related_lines_tbl	Out	RELATED_LINES_TBL_ TYPE	No
x_return_status	Out	Varchar2	Yes
x_return_status_text	Out	Varchar2	Yes

PRICE_REQUEST(Overloaded)

This API has been overloaded for performance features. The request line and attributes are inserted into the pricing temporary tables prior to calling this API. Please refer to the performance features section under this API for more details regarding this call.

Table 3–143 PRICE_REQUEST(Overloaded)

Parameter	Usage	Type	Req
p_control_rec	In	CONTROL_REC_ TYPE	Yes
x_return_status	Out	Varchar2	Yes
x_return_status_text	Out	Varchar2	Yes

CONTROL_REC_TYPE

The Derived value for each parameter is Null.

Table 3–144 CONTROL_REC_TYPE

Parameter	Type	Req	Usage
PRICING_EVENT	Varchar2	Yes	A point in the transaction life cycle of your transaction at which you wish to price it. The pricing event determines which phases the search engine processes according to the mapping in QP_EVENT_PHASES.

Table 3–144 CONTROL_REC_TYPE

Parameter	Type	Req	Usage
CALCULATE_FLAG	Varchar2	Yes	Use to call the engines. Allowable values are: QP_PREQ_GRP. G_SEARCH_ONLY: Search engine: If you do not want the engine to calculate the selling price. QP_PREQ_GRP.G_CALCUL_ATE_ONLY: Calculate engine: If you are passing the adjustment records to the engine and you want the engine to recalculate the selling price, without retrieving new adjustments. QP_PREQ_GRP. G_SEARCH_N_ CALCULATE: Both the calculate and search engines: Regular engine call. Retrieves new adjustments and calculates the selling price
SIMULATION_FLAG	Varchar2	Yes	A value of Yes indicates that the call to is a pricing simulation and that the pricing engine should not make permanent record changes and neither issue or redeem coupons.
ROUNDING_FLAG	Varchar2	Yes	Indicates whether the calculation engine should round the list price and selling price based on the price list rounding factor or the pricing request line record rounding factor. When rounding, the calculation engine rounds all intermediate subtotals for each pricing group sequence. By default, the rounding is enabled in the pricing engine unless the rounding flag is explicitly set to No. Allowable values are: *Y*: engine applies the rounding factor defined in the price list *N*: unrounded figures would be returned *Q*: Refer to the value of the profile QP: Selling Price Rounding Options

Table 3–144 CONTROL_REC_TYPE

Parameter	Type	Req	Usage
GSA_CHECK_FLAG	Varchar2	No	Indicates whether the GSA Violation needs to be checked, provided the customer is not a GSA customer and the selling price falls below the price on the GSA price list. Allowable values are: *Y*: engine applies the rounding factor defined in the price list *N:* unrounded figures are returned
TEMP_TABLE_INSERT_FLAG	Varchar2	No	Indicates if the calling application wants the engine to insert the order lines into the QP temporary table(s). The values for this are: *Y:* The pricing engine will insert the lines into the QP temporary tables *N* – This means to the engine that the order lines are already there in the temporary tables.
MANUAL_DISCOUNT_FLAG	Varchar2	No	This flag is introduced to support new Release 11*i* functionality. This value is set by the calling application and the value is based on the profile QP: Return Manual Discounts. Indicates how pricing engine should perform incompatibility processing for manual discounts. he possible values for this profile are: *Yes*: All the manual discounts will be returned. All the automatic discounts that get deleted as part of incompatibility processing will be returned as manual discounts. *No*: All automatic and manual discounts will go through incompatibility processing and one of them in each incompatibility group will be returned. In this process an automatic discount might get deleted and a manual discount might get selected.

Table 3–144 CONTROL_REC_TYPE

Parameter	Type	Req	Usage
SOURCE_ORDER_ AMOUNT_FLAG	Varchar2	No	This is for internal use of the pricing engine. Indicates whether the pricing engine will source the order amount attribute. Allowable values are: *Y*: Indicates to the pricing engine to source the order amount. It means the calling application will provide the order amount *N*: The pricing engine should calculate the order amount
CHECK_CUST_VIEW_ FLAG	Varchar2	No	This is for internal use only. Indicates whether the pricing engine should take a look at caller's pricing tables. Allowable values are: *Y*: Indicates that to access the calling applications data, the source system uses the view provided by calling application. *N*: Indicates that the calling application directly provides the data to the source system
REQUEST_TYPE_CODE	Varchar2	Yes	Identifies the transaction system making the pricing request.
VIEW_CODE	Varchar2	No	This is for internal use only. Indicates the view code for the transaction system of the caller. It indicates database view id, which the source system uses to access the calling application's data.
USE_MULTI_ CURRENCY	Varchar2	No	Indicates if the calling application wants to use multi-currency. Valid values: 'Y' or 'N' Default value: 'N'
USER_CONVERSION_ RATE	Number	No	User defined Conversion rate, used for multi-currency
USER_CONVERSION_ TYPE	Varchar2	No	User defined conversion type, used for multi-currency

Table 3–144 CONTROL_REC_TYPE

Parameter	Type	Req	Usage
FUNCTION_ CURRENCY	Varchar2	No	Functional currency, used for multi-currency
FULL_PRICING_CALL	Varchar2	No	Indicates if the calling application passed only changed lines to the pricing engine or all the lines during reprice. Set to 'Y' if passed all the lines, 'N' if passed only changed lines. Refer to the changed lines feature
GET_FREIGHT_FLAG	Varchar2	No	When the control record get_freight_flag is set to Y, the pricing engine will only process the phases that have freight charges existing. The Pricing engine will return the modifiers (including freight charge modifiers and non freight charge modifiers) that are qualified in these phases.

The pricing event determines the pricing phases to be run during the call to pricing engine. If you create your own pricing phase ,associate the pricing events to phases using screen setup _ event phases . Each modifier is associated to one pricing phase. Pricing engine looks only at those modifiers associated with the phases defined for the pricing event passed.

The following are some of the seeded pricing events:

Table 3–145 Seeded Pricing Events

Pricing Event	Pricing Phase
PRICE	List Line Base Price
LINE	List Line Base Price
LINE	List Line Adjustment
LINE	Line Charges
LINE	Line Charges - Manual
BOOK	Modifiers for Book event
ORDER	All Lines Adjustments

Table 3–145 Seeded Pricing Events

Pricing Event	Pricing Phase
ORDER	Header Level Adjustments
ORDER	Header Level Charges
SHIP	Line Charges
BATCH	Pricing phases in LINE+ORDER
ICBATCH	Pricing phases in LINE+ORDER.This event is specific to Inventory Intercompany Invoice Transfer Pricing

LINE_REC_TYPE

Table 3–146 LINE_REC_TYPE

Parameter	Datatype	Req	Drv	Type	Usage
REQUEST_TYPE_ CODE	Varchar2	No	No	In	Identifies the transaction system making the pricing request.
PRICING_EVENT	Varchar2	No	No	N/A	Not used
HEADER_ID	Number	No	No	N/A	Not used
LINE_INDEX	Number	Yes	No	In/Out	PL/SQL unique identifier for request line.
LINE_ID	Number	No	No	In	Unique identifier of the request line in the calling application.
LINE_TYPE_CODE	Varchar2	Yes	No	In	Type of line within the request.Allowable values are: ■ ORDER ■ LINE
PRICING_ EFFECTIVE_ DATE	Date	Yes	No	In/Out	Date for which the pricing engine calculates the prices.

Table 3–146 LINE_REC_TYPE

Parameter	Datatype	Req	Drv	Type	Usage
ACTIVE_DATE_FIRST	Date	No	No	In/Out	In addition to the pricing effective date, you can specify two additional dates for the pricing engine to use to qualify pricing entities. The pricing engine compares this date against the first date range on the modifier list—QP_LIST_HEADERS_B.START_DATE_ACTIVE_FIRST and QP_LIST_HEADERS_B.END_DATE_ACTIVE_FIRST.
ACTIVE_DATE_FIRST_ TYPE	Varchar2	No	No	In/Out	The date type of ACTIVE_DATE_FIRST based on lookup type EFFECTIVE_DATE_TYPES.
ACTIVE_DATE_SECOND	Date	No	No	In/Out	In addition to the pricing effective date, you can specify two additional dates for the pricing engine to use to qualify pricing entities. The pricing engine compares this date against the first date range on the modifier list—QP_LIST_HEADERS_B.START_DATE_ACTIVE_SECOND and QP_LIST_HEADERS_B.END_DATE_ACTIVE_SECOND.
ACTIVE_DATE_SECOND_TYPE	Varchar2	No	No	In/Out	The date type of ACTIVE_DATE_SECOND based on lookup type EFFECTIVE_DATE_TYPES.
LINE_QUANTITY	Number	Yes	No	In/Out	Pricing request line quantity.
LINE_UOM_CODE	Varchar2	Yes	No	In/Out	Pricing request line unit of measure.
UOM_QUANTITY	Number	No	No	In/Out	Unit of measure quantity, internal value used by engine to perform service pricing.
PRICED_QUANTITY	Number	No	Yes	Out	Quantity of pricing request line that pricing engine has priced.
PRICED_UOM_CODE	Varchar2	No	Yes	Out	Unit of measure in which the pricing engine priced.
CURRENCY_CODE	Varchar2	Yes	No	In/Out	Currency in which the pricing engine priced.
UNIT_PRICE	Number	No	Yes	Out	Unit price of the item that is expressed in *Priced UOM Code*
PERCENT_PRICE	Number	No	Yes	Out	Price calculated as a percentage of the price of another item.

Table 3–146 LINE_REC_TYPE

Parameter	Datatype	Req	Drv	Type	Usage
UPDATED_ ADJUSTED_UNIT_ PRICE	Number	No	No	In	This is used for overriding the unit selling price of an item to apply a suitable manual adjustment. In this case, the pricing engine will apply a suitable manual adjustment after calculating the unit selling price to match the updated_adjusted_unit_price that the caller has passed in.
ADJUSTED_UNIT_ PRICE	Number	No	Yes	Out	Price per unit after the pricing engine applies discounts and surcharges. It indicates the unit price for the service item, which has the percent price.
PARENT_PRICE	Number	No	Yes	Out	When the pricing engine determines the price of an item from the price of another item, the price of the related item. This is used only for service items and it is populated from the serviceable item.
PARENT_QUANTITY	Number	No	Yes	Out	When the pricing engine determines the price of an item from the price of another item, the quantity of the related item.
ROUNDING_FACTOR	Number	No	No	In/Out	The pricing engine will use this factor to which the selling price is rounded to when the pricing engine returns the price. If the caller does not pass this field, the pricing engine will populate the rounding factor from the qualified price list into this field and use it for rounding. If multi-currency is installed and used, the pricing engine will populate the selling rounding factor of the matching currency from the attached multi-currency list (currency conversion criteria) of the qualified price list into this field and use it for rounding
PARENT_UOM_CODE	Varchar2	No	Yes	Out	When the pricing engine determines the price of an item from the price of another item, the unit of measure of the related item.
PRICING_PHASE_ID	Number	No	No		Not used

Table 3–146 LINE_REC_TYPE

Parameter	Datatype	Req	Drv	Type	Usage
PRICE_FLAG	Varchar2	Yes	No	In	Indicates the degree to which the price is frozen. Allowable values, based on lookup type CALCULATE_PRICE_FLAG are: Y (Calculate Price): Apply all prices and modifiers to the request line. N (Freeze Price): Do not apply any prices or modifiers to the request line. Consider the volume of the request line when processing LINEGROUP modifiers for other lines. P (Partial Price):, Apply prices and modifiers in phases whose freeze override flag is Y.
PROCESSED_CODE	Varchar2	No	No	Out	Internal code which indicates the stage of engine processing when an error occurred.
STATUS_CODE	Varchar2	No	No	In/Out	Returned status. Allowable values are: N: New record created(All 'N' records are returned back from the pricing engine.These are success records) X: Unchanged(Default status when the line is passed to the pricing engine for processing) U: Updated IPL: Invalid price list(When passed in price list is not found , then an error is given) GSA: GSA violation FER: Error processing formula OER: Other error CALC: Error in calculation engine UOM: Failed to price using unit of measure INVALID_UOM: Invalid unit of measure DUPLICATE_PRICE_LIST: Duplicate price list INVALID_UOM_CONV: Unit of measure conversion not found INVALID_INCOMP: Could not resolve incompatibility INVALID_BEST_PRICE: Could not resolve best price

Table 3–146 LINE_REC_TYPE

Parameter	Datatype	Req	Drv	Type	Usage
STATUS_TEXT	Varchar2	No	No	Out	Returned message.
PRICE_REQUEST_ CODE	Varchar2	No	Yes	In/Out	This is unique code to identify each order line consuming a modifier. It is request_type_ code concatenated to the header_id and the line_id(applicable only for order lines as line_ id is null for header lines) of the order line separated .
HOLD_CODE	Varchar2	No	No	Out	This indicates that a limit having the hold_ flag checked has been exceeded or adjusted and is a recommendation to the caller to put the order/line on hold.
HOLD_TEXT	Varchar2	No	No	Out	This is a detailed message corresponding to the hold_code.
USAGE_PRICING_ TYPE	Varchar2	No	No	In/Out	Indicates the usage pricing type. REGULAR – Regular pricing AUTHORING – Authoring call BILLING – Billing call
LINE_CATEGORY	Varchar2	Yes	No	In/Out	Indicates the line category. The applicable values: RETURN – Returned line CANCEL – Cancelled line NULL – Regular line
CONTRACT_START_ DATE	Date	No	No	In	When UOM conversion is time related and Profile QP: Time UOM Conversion is set to Oracle Contracts, order quantity by order UOM and pricing quantity by pricing UOM are calculated based on contract_start_date, contract_end_date.
CONTRACT_END_ DATE	Date	No	No	In	When UOM conversion is time related and Profile QP: Time UOM Conversion is set to Oracle Contracts, order quantity by order UOM and pricing quantity by pricing UOM are calculated based on contract_start_date, contract_end_date.
LINE_UNIT_PRICE	Number	No	Yes	Out	Unit price by order UOM

Types Of Request Lines

1. Regular Order Line where line_type_code = 'LINE'.
2. Summary Line where line_type_code = 'ORDER' which is the summary line for the whole Sales Order. This line has all the order level attributes attached to it. This line is required to be passed to the pricing engine to get any Order Level Discounts based on the attributes or qualifiers that are attached to this Line.
3. Lines that are generated or derived by the pricing engine , in case of discounts like Promotional Good , where in a new order line is created.This line would have the processed code as 'ENGINE'. The relationship between the new line and the original request line is stored in the Relationship record structure RELATED_LINES_REC_TYPE.So, if the engine returns a free good (PRG Modifier) , then there will be a new request line generated by the pricing engine.

LINE_DETAIL_REC_TYPE

Table 3–147 LINE_DETAIL_REC_TYPE

Parameter	Type	Req	Drv	Type	Usage
LINE_DETAIL_INDEX	Number	Yes	Yes	In/Out	PL/SQL unique identifier. Unique identifier of request line detail in calling application.
LINE_DETAIL_ID	Number	No	No	N/A	Not Used
LINE_DETAIL_TYPE_ CODE	Varchar2	Yes	No	Out	Type of detail line.
LINE_INDEX	Number	Yes	No	In/Out	Identifier for parent request line.
LIST_HEADER_ID	Number	Yes	No	In/Out	Identifier of the list header used to create or update the pricing line.
LIST_LINE_ID	Number	Yes	No	In/Out	Identifier of the list line used to create or update the pricing line.
LIST_LINE_TYPE_CODE	Varchar2	Yes	No	In/Out	Line type of the list line used to update the pricing line. Possible values can be found from the lookup type LIST_ LINE_TYPE_CODE from qp_lookups table.
SUBSTITUTION_TYPE_ CODE	Varchar2	No	No		Not used.
SUBSTITUTION_FROM	Varchar2	No	No		Not used.
SUBSTITUTION_TO	Varchar2	No	No	Out	Value for terms substitution attribute.

Table 3–147 LINE_DETAIL_REC_TYPE

Parameter	Type	Req	Drv	Type	Usage
AUTOMATIC_FLAG	Varchar2	Yes	No	Out	Indicates if the pricing engine should automatically apply the request line detail to the request line. The engine derives the value from the list line.
OPERAND_ CALCULATION_ CODE	Varchar2	Yes	No	In/Out	Type of operand. Allowable values are: Adjustment percent(for discounts) Adjustment amount (for discounts) Adjustment NewPrice(for discounts) UNIT_PRICE(for price lists) PERCENT_PRICE(for price lists)
OPERAND_VALUE	Number	Yes	No	In/Out	Value of pricing request detail line, for example, 10 currency unit list price with 3% discount
PRICING_GROUP_ SEQUENCE	Number	Yes	No	In/Out	Indicates the pricing bucket in which the pricing engine applied this list line.
PRICE_BREAK_TYPE_ CODE	Varchar2	Yes	No	In/Out	Type of price break based on lookup type PRICE_BREAK_TYPE_CODE. Possible Values: POINT , RANGE , RECURRING
CREATED_FROM_LIST_ TYPE_CODE	Varchar2	Yes	No	In/Out	List type used to create or update the pricing line.Possible values can be found from the lookup_type LIST_ TYPE_CODE from qp_lookups table.
PRICING_PHASE_ID	Number	Yes	No	In/Out	The pricing phase which created the request line detail.
LIST_PRICE	Number	No	No	Out	Not Used
LINE_QUANTITY	Number	No	Yes	Out	Quantity on the price break line. Populated if the pricing engine derived the value of the request line or request line detail from a price break. A not null value indicates that this perticular break line was used in the calculation.

Table 3–147 LINE_DETAIL_REC_TYPE

Parameter	Type	Req	Drv	Type	Usage
ADUSTMENT_AMOUNT	Number	No	No	Out	It holds the value of the bucketed adjusted amount for line types like PLL , DIS ,SUR etc. For price break(PBH) child lines , the field is populated if the pricing engine derived the value of the request line or request line detail from a price break.
APPLIED_FLAG	Varchar2	No	No	In/Out	The lists or list lines that this pricing event or a prior pricing event applied. Allowable values are Yes: Applicable when the attribute context is a list or list line No: Applicable when the attribute context is a list or list line Null
MODIFIER_LEVEL_ CODE	Varchar2	Yes	No	In/Out	The level at which the list line qualified for the transaction. Based on lookup type MODIFIER_LEVEL_CODE.
STATUS_CODE	Varchar2	No	No	Out	Returned status. Possible Values: N: New record created(All 'N' records are returned back from the pricing engine.These are success records) UPDATED: Indicates Success status and that the record is Updated record and is not new. X: Indicates Success status and that the record is Unchanged BACK_CALCULATION_ERROR : Indicates that there were no qualified manual overrideable adjustments to adjust the price. D : Deleted. This indicates Failure. D_PBH : deleted in PBH processing
STATUS_TEXT	Varchar2	No	No	Out	Returned message.

Table 3–147 LINE_DETAIL_REC_TYPE

Parameter	Type	Req	Drv	Type	Usage
SUBSTITUTION_ ATTRIBUTE	Varchar2	No	No	Out	Modifier details. The attribute in the TERMS context that the pricing engine substituted, for example, Payment Terms. Used for Term Substitution-type modifiers.
ACCRUAL_FLAG	Varchar2	No	No	In/Out	Indicates that the modifier is an accrual
LIST_LINE_NO	Varchar2	No	No	In/Out	Modifier number.This field is applicable in case of Coupon Issue kind of modifier line.
ESTIM_GL_VALUE	Number	No	No	Out	The discount or surcharge value of the modifier. Used to estimate the discount cost for non-monetary modifiers.
ACCRUAL_ CONVERSION_ RATE	Number	No	No	Out	The rate to use when converting a non-monetary accrual to a monetary value.
OVERRIDE_FLAG	Varchar2	No	No	In/Out	Indicates if a user in the calling application can override the modifier value.
PRINT_ON_INVOICE_ FLAG	Varchar2	No	No	Out	Not used.
INVENTORY_ITEM_ID	Number	No	No	Out	Inventory item identifier in an item relationship. Used for list line type Item Upgrade.
ORGANIZATION_ID	Number	No	No	Out	Organization identifier in an item relationship. Used for list line type Item Upgrade.
RELATED_ITEM_ID	Number	No	No	Out	Related inventory item identifier in an item relationship. Used for list line type Item Upgrade.
RELATIONSHIP_TYPE_ ID	Number	No	No	Out	Relationship type identifier in an item relationship. Used for list line type Item Upgrade.

Table 3–147 LINE_DETAIL_REC_TYPE

Parameter	Type	Req	Drv	Type	Usage
ESTIM_ACCRUAL_RATE	Number	No	No	Out	Indicates the percentage at which to accrue or, for a coupon, the expected rate of redemption of the coupon. Liability is defined as: ACCRUAL OR COUPON VALUE * ESTIM_ ACCRUAL_RATE. Default Value: 100
EXPIRATION_DATE	Date	No	No	Out	The expiration date of the accrual or coupon.
BENEFIT_PRICE_LIST_ LINE_ ID	Number	No	No	Out	The price list_line_id which has the list price before promotional discount. Used for Promotional Goods-type modifiers when the pricing engine creates a new transaction line.
RECURRING_FLAG	Varchar2	No	No		Not Used
BENEFIT_LIMIT	Number	No	No	Out	Not Used.
CHARGE_TYPE_CODE	Varchar2	No	No	In/Out	Indicates the type of charge based on lookup type FREIGHT_CHARGES_ TYPE. Used for Freight/Special Charge-type modifiers.
CHARGE_SUBTYPE_ CODE	Varchar2	No	No	In/Out	Indicates the type of charge based on lookup type CHARGE_TYPE_CODE.
INCLUDE_ON_ RETURNS_ FLAG	Varchar2	No	No	Out	Indicates whether the pricing engine should include the charge on a return transaction. Used for Freight/Special Charge-type modifiers.
BENEFIT_QTY	Number	No	No	Out	The accrual quantity for non-monetary accruals or, for promotional goods, item quantity.
BENEFIT_UOM_CODE	Varchar2	No	No	Out	The accrual unit of measure for non-monetary accruals, or, for promotional goods, item unit of measure.
PRORATION_TYPE_ CODE	Varchar2	No	No	Out	Not Used.
SOURCE_SYSTEM_ CODE	Varchar2	No	No	Out	Not Used.
REBATE_ TRANSACTION_ TYPE_ CODE	Varchar2	No	No	Out	Not Used.

Table 3–147 LINE_DETAIL_REC_TYPE

Parameter	Type	Req	Drv	Type	Usage
SECONDARY_PRICE_ LIST_ IND	Varchar2	No	No	Out	Indicates that the pricing used a secondary price list instead of the price list that the calling application requested.
GROUP_VALUE	Varchar2	No	No	Out	This is populated for modifiers with modifier level code 'Group of Lines' and arithmetic operator as 'LUMPSUM'. It indicates the quantity/amount applied for that order line to which this belongs to. It is the quantity if the pricing attribute has 'Item Quantity' and amount if the pricing attribute is 'Item Amount'.
COMMENTS	Varchar2	No	No	Out	The comments on a modifier
UPDATED_FLAG	Varchar2	No	No	In/Out	Indicates that this modifier has been overridden.
PROCESS_CODE	Varchar2	No	No	Out	Indicates the pricing engine processing code for internal use.
LIMIT_CODE	Varchar2	No	No	Out	Indicates that the limit on this modifier has either exceeded or adjusted or consumed. Applicable values: ■ EXCEEDED ■ ADJUSTED ■ CONSUMED
LIMIT_TEXT	Varchar2	No	No	Out	The detailed message corresponding to the limit_code
FORMULA_ID	Varchar2	No	No	Out	The formula_id setup on the modifier.
CALCULATION_CODE	Varchar2	No	No	Out	Indicates the calculation code on the adjustment. BACK_CALCULATE : Indicates that this adjustment is a back calculated adjustment and it got applied to adjust the overridden selling price. This is related to the field updated_adjusted_ unit_price on line_rec_type.

Table 3–147 LINE_DETAIL_REC_TYPE

Parameter	Type	Req	Drv	Type	Usage
ROUNDING_FACTOR	Number	No	No	Out	Conversion rounding factor, populated when multi-currency set-up is being used
CURRENCY_DETAIL_ID	Number	No	No	Out	Unique identifier for the multi-currency detail record, populated when multi-currency set-up is being used
CURRENCY_HEADER_ID	Number	No	No	Out	Unique identifier for the multi-currency header record, populated when multi-currency set-up is being used
SELLING_ROUNDING_ FACTOR	Number	No	No	Out	Rounding Factor, populated when multi-currency set-up is being used
ORDER_CURRENCY	Varchar2	No	No	Out	Order Currency, populated when multi-currency set-up is being used
PRICING_EFFECTIVE_DATE	Date	No	No	Out	Pricing effective date, populated when multi-currency set-up is being used
BASE_CURRENCY_CODE	Varchar2	No	No	Out	Base currency code, populated when multi-currency set-up is being used

Inserting Lines into Temporary Tables The pricing engine takes in the input data, processes and inserts to the temporary table. By inserting the request lines, passed in attributes, qualifiers and modifiers directly to the temporary tables, the performance can be improved. The caller can indicate to the pricing engine that the data is inserted to the temporary tables by passing a value of 'N' to the TEMP_ TABLE_INSERT_FLAG on the control record. There are procedures to do bulk inserts to the pricing temporary tables.

1. To insert the request lines to the temporary table, the procedure INSERT_ LINES2 can be used. This procedure is in the pricing engine API QP_PREQ_ GRP. This procedure does a bulk insert to the temporary tables. So the user needs to load the request line details PL/SQL table of records to individual PL/SQL tables one for each column. The temporary table for request lines QP_ PREQ_LINES_TMP has columns that map to the columns of the P_LINE_TBL PL/SQL table.
2. To insert the passed in attributes, the procedure INSERT_LINE_ATTRS2 in the API QP_PREQ_GRP. This also does a bulk insert. Each column of the P_LINE_

ATTR_TBL maps to a column in the temporary table for line attributes QP_ PREQ_LINE_ATTRS_TMP .

3. The manual modifiers that need to be applied can be inserted into the temporary table for modifiers QP_PREQ_LDETS_TMP.
4. The build sourcing API has been modified to insert into the temporary tables directly. The procedure BUILD_CONTEXTS in the QP_ATTR_MAPPING_PUB API populates the temporary tables directly. This can be called to source the necessary attributes.
5. The procedure to make the pricing engine call, PRICE_REQUEST in the pricing engine API QP_PREQ_PUB has been overloaded to pass only the control record.
6. The output of the pricing engine exists in the temporary tables and the caller can process the data from the pricing temporary tables.

This is the process to insert records into the temporary tables and this will enhance the performance of the pricing engine. There is a example script to demonstrate the direct insertion. Please refer to the example scripts mentioned in this document.

Types of Request Line Details

1) Price List Line (PLL)

OPERAND_VALUE and OPERAND_CALCULATION_CODE columns store the price information and the type of price(UNIT_PRICE or PERCENT_PRICE).

2) Discount Line (DIS)

OPERAND_VALUE and OPERAND_CALCULATION_CODE columns store the price information and the type of price(AMT,%,or NEW_PRICE).

3) Surcharge Line (SUR)

OPERAND_VALUE and OPERAND_CALCULATION_CODE columns store the price information and the type of price(AMT,%,or NEW_PRICE).

4) Other Item Discount (OID)

OID processing: For OID processing, two request lines need to be passed to the pricing engine; for example, Buy A get 10% of B.

In the above example A and B need to be ordered on 2 order lines. So 2 request lines are passed to the pricing engine. So , when the engine does the OID processing , it

creates a discount line for 10% on the 2nd request line . So, the 10% discount gets applied to the 2nd request line. Also a relationship record is created in the RELATED_LINES_REC_TYPE record structure. Line Detail Index 8 is the actual Discount Line which is the OID line and Line Detail Index 9 is the actual benefit line which is 10% off line. So, the relationship is as follows:

Table 3–148 Relationship

Line Index	Line Detail Index	Related Line Index	Related Line Detail Index	Relation Ship Type
1	8(OID Line)	2	9(10% line)	GENERATED_LINE

5) Promotional Goods Discount (PRG)

PRG Processing: For example, Buy A get B for free, only Buy Item A request line needs to be passed to the pricing engine.

In the above example only request line/order line with Item A is sent to the pricing engine. Item B need not be ordered . This is the basic difference between OID and PRG. The pricing engine selects the PRG Modifier because of purchase of Item A and creates a record in the LINE_DETAIL_REC_TYPE record structure (Line Index 1-Line Detail Index 1). Then it tries to give the benefit which is a free B Item. In the process it does the following things:

a. A new request line is created in the LINE_REC_TYPE record structure.(Line Index 2).

b. A new relationship between the Item A line and Item B line is created ,in the RELATED_LINES_REC_TYPE record structure. It is a Line-Line relationship(Line Index 1 - Line Index 2).

c. A new Price List Line is created for the new request line in the LINE_ DETAIL_REC_TYPE record structure.(Line Index 2 - Line Detail Index 3).

d. A new adjustment line for 100% discount is created for the new request line in the LINE_DETAIL_REC_TYPE record structure.(Line Index 2 - Line Detail Index 4).

e. A new relationship line between the original PRG Line Detail Line and the new 100% off line detail is created in the RELATED_LINES_REC_TYPE record structure .(Line Detail Index 1 - Line Detail Index 4).

f. A new record is created in the LINE_ATTR_REC_TYPE record structure for the new item B. (Line Index 2 - PRICING_CONTEXT = 'ITEM' , PRICING_

ATTRIBUTE = 'PRICING_ATTRIBUTE1', PRICING_ATTR_VALUE = 'Item B').

6) Terms Substitution (TSN)

- SUBSTITUTION ATTRIBUTE
- SUBSTITUTION TO

7) Freight Charge

Freight Charges Processing: All the freight charge discounts do not affect the selling price. The pricing engine calculates the adjustment amount for the freight charge discounts but, this does not effect the selling price.

8) Manual Modifiers Processing

All the automatic modifiers of type Discounts and Surcharges that the user has qualified for , that are deleted as part of incompatibility resolution(due to incompatibility setup rules) , are returned as manual discounts to the caller. In addition to these discounts , all the qualified manual modifiers of type Discounts and Surcharge discounts are also returned to the caller , unapplied.

Manual adjustments can be applied in 2 ways:

a. The caller can pass the manual adjustment to the pricing engine with Applied_Flag = 'Y' and Updated_Flag = 'Y'. The engine will apply this manual adjustment. The caller can override the manual adjustment by passing the new operand on the line_detail_rec_type.adjustment_amount.

Example: The caller makes a pricing engine call with 3 order lines. He wants to apply a manual adjustment of 10% to be applied to the second order line. The caller should pass the manual adjustment in the line_detail_tbl with columns updated_flag = 'Y' and applied_flag = 'Y' and with the line_index of the second order line. The pricing engine API, will calculate the adjustment amount and will apply this manual adjustment to the second order line. The applied_flag and updated_flag will be returned as 'Y' to indicate that it has been applied.

b. The caller can override the selling price by passing the new selling price in the line_detail_rec_type.updated_adjusted_unit_price. The engine will then pick up a suitable manual overrideable modifier that is qualified and back calculate the adjustment amount and operand to match the new selling price. In this case the pricing engine will pass back this manual modifier

with calculation_code as 'BACK_CALCULATE', updated_flag = 'Y' and applied_flag = 'Y'.

Example: If the caller passes 3 order lines to the pricing engine and the unit selling price on the second order line is $80 and the unit list price is $100 and he wants to override the selling price to $90. In this case, the user has to pass 80 in the column UPDATE_ADJUSTED_UNIT_PRICE on the request line in the record corresponding to the second order line in the LINE_TBL. Then the pricing engine picks up all the qualifying manual overrideable adjustments, decides whether it needs to apply a discount or a surcharge. It prefers a manual overrideable adjustment that has been applied already. If none has been applied already, it randomly picks up a manual adjustment, back calculates the adjustment amount, $10 surcharge in this case, and returns it with calculation_code as 'BACK_CALCULATE'. If there are no qualified manual overrideable adjustments, it returns an error status on the second order line indicating that there are no manual adjustments. In case, there is an error during the back calculation, the engine returns an error status on the second order line. The pricing_status_code on the second order line has the error code 'BACK_CALCULATION_ERROR' in case of an error.

9) Coupon Issue (CIE)

Coupon processing: For example, Buy Item A , get a Coupon for 10% of Item B.

The pricing engine gets one request line with Item A . Based on the search , the engine loads the Coupon Issue Modifier Line (CIE) in the LINE_DETAIL_REC_ TYPE record structure . As part of the coupon issue processing , the pricing engine generates a coupon no dynamically which can be found from the LIST_LINE_NO column of the LINE_DETAIL_REC_TYPE record structure on the CIE modifier line . Also, the pricing engine creates a qualifier with this generated list_line_no for the 10% discount on Item B. That way , this discount will not be given , unless this coupon number is presented, next time as a qualifier to the pricing engine.

In the above example it say generated C10B as the coupon number. The next time , the customer gets this Coupon and this coupon number is punched in before making a pricing engine call and then the 10% discount on Item B is given , if the Customer Buys Item B.

10) Price Break Header (PBH)

Price Break Processing: The price break processing is same for both Price List Breaks and Discount/Surcharge Breaks. Price Breaks can be either POINT or RANGE

breaks. This is found in the PRICE_BREAK_TYPE_CODE column in the record structure. Following is an example of how a Price Break is setup:

Price Break setup has a Price Break Parent Record which has a line type called PBH. This PBH record can have more than 1 child record, which actually define the breaks. The Parent and the child records are all there in the LINE_DETAIL_REC_ TYPE record structure.

Example:

Table 3–149 Example

List Line Type Code	Parent/Child	Price Break From	Price Break To	Value	Break Type
PBH	Parent				POINT/RANGE
PLL	Child	1	100	$100	POINT/RANGE
PLL	Child	101	200	$90	POINT/RANGE
PLL	Child	201	300	$80	POINT/RANGE
PLL	Child	301		$70	POINT/RANGE

The Adjustment Amount and Line Quantity Fields exactly tell how and which child line has been used in deriving the break . Ex: If the ordered Quantity is 350. Then the record structure will have the information as follows:

Table 3–150 Record Structure Information

List Line Type Code	Adjustment Amount	Line Quantity	Break Type
PBH	$90	350	POINT
PLL	$100	0	POINT
PLL	$90	0	POINT
PLL	$80	0	POINT
PLL	$70	350	POINT
PBH	$87.1428571	350	RANGE
PLL	$100	100	RANGE
PLL	$90	100	RANGE

Table 3–150 Record Structure Information

List Line Type Code	Adjustment Amount	Line Quantity	Break Type
PLL	$80	100	RANGE
PLL	$70	50	RANGE

The relationship between the Parent and Child Records are stored in the RELATED_LINES_REC_TYPE record structure.The relationship type would be PBH_LINE

Table 3–151 RELATED_LINES_REC_TYPE

Line Index	Line Detail Index	Related Line Index	Related Line Detail Index	Relation Ship Type
1	8(PBH Line Detail)	1	9(PLL Line Detail 1)	PBH_LINE
1	8	1	10(PLL Line Detail 2)	PBH_LINE
1	8	1	11(PLL Line Detail 3)	PBH_LINE
1	8	1	12(PLL Line Detail 4)	PBH_LINE

11) Item Upgrade (IUE)

Important Columns:

INVENTORY_ITEM_ID

RELATED_ITEM_ID

QUAL_REC_TYPE

The Required and Derived values for the following parameters are Null.

Table 3–152 QUAL_REC_TYPE

Parameter	DataType	Type	Usage
LINE_INDEX	Number	In/Out	Unique identifier for request line or request line detail.
QUALIFIER_CONTEXT	Varchar2	In/Out	Context for qualifier, for example, Customer Hierarchy.

Table 3–152 QUAL_REC_TYPE

Parameter	DataType	Type	Usage
QUALIFIER_ ATTRIBUTE	Varchar2	In/Out	Qualifier attribute, for example, QUALIFIER_ATTRIBUTE1: Customer Class.
QUALIFIER_ATTR_ VALUE_FROM	Varchar2	In/Out	Value for qualifier attribute
QUALIFIER_ATTR_ VALUE_TO	Varchar2	In/Out	Return value for qualifier attribute. Populated when the pricing engine returns details of a volume break.
COMPARISION_ OPERATOR_CODE	Varchar2	Out	The pricing engine creates qualifier attributes to indicate to the calling application which qualifier attribute caused it to give a benefit, for example, Order Amount > 1000 currency units (> is the operator code).
VALIDATED_FLAG	Varchar2	In/Out	Indicates that a price list or modifier list(asked for promotion) is valid for the pricing request. Applicable to price list and modifier list qualifiers; the pricing engine assumes that other qualifiers are valid.
STATUS_CODE	Varchar2	In/Out	Return status.
STATUS_TEXT	Varchar2	Out	Return message

LINE_ATTR_REC_TYPE

The Required and Derived values for the following parameters are Null.

Table 3–153 LINE_ATTR_REC_TYPE

Parameter	Datatype	Type	Usage
LINE_INDEX	Number	In/Out	Unique identifier for request line or request line detail.
PRICING_CONTEXT	Varchar2	In/Out	Context for a product or pricing attribute, for example, Product Hierarchy.
PRICING_ATTRIBUTE	Varchar2	In/Out	Product or pricing attribute, for example, PRICING_ATTRIBUTE11: Customer Item ID.

Table 3–153 LINE_ATTR_REC_TYPE

Parameter	Datatype	Type	Usage
PRICING_ATTR_VALUE_FROM	Varchar2	In/Out	Value for product or pricing attribute.
PRICING_ATTR_VALUE_TO	Varchar2	In/Out	Return value for Pricing attribute. Populated when the pricing engine returns details of a volume break
VALIDATED_FLAG	Varchar2	In/Out	Not used.
STATUS_CODE	Varchar2	In/Out	Return status
STATUS_TEXT	Varchar2	In/Out	Return Message

RELATED_LINES_REC_TYPE

The Required and Derived values for the following parameters are Null.

Table 3–154 RELATED_LINES_REC_TYPE

Parameter	Datatype	Type	Usage
LINE_INDEX	Number	In/Out	PL/SQL unique identifier for request line.
LINE_DETAIL_INDEX	Number	In/Out	PL/SQL unique identifier for request detail line
RELATIONSHIP_TYPE_CODE	Varchar2	In/Out	Type of relationship between pricing lines.
RLTD_LINE_INDEX	Number	In/Out	PL/SQL identifier for related request line.
RLTD_LINE_DETAIL_INDEX	Number	In/Out	PL/SQL unique identifier for related request detail line.

Validation of Price Request API

Standard Validation

Oracle Pricing validates all required columns in the Price Request API. For specific information on the data implied by these columns, see: *Oracle Pricing Technical Reference Manual* for details.

Other Validation

None

Error Handling

If any validation fails, the API will return error status to the calling module. The Price Request API processes the rows and reports the following values for every record.

Table 3–155 Error Handling

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	Null
Failure	4	actual error message

See

Oracle Pricing Technical Reference Manual

Example of Price Request Application Program Interface

The follow are script examples for the Price Request Application Program Interface:

Script Names

- qp_engine_testing.sql(All regular Price Lists, Discounts , Surcharges etc.)
- qp_test_service.sql(Service Item Pricing Setup)
- qp_test_oid.sql(Other Item Discount Setup)
- qp_direct_insert.sql(Direct insertion into temporary tables to improve performance)
- qp_manual_adjustments(Apply manual adjustments)
- qp_override_selling_price.sql(Override the unit selling price)

Location

$QP_TOP/patch/115/sql

Purpose

This script helps the user in setting up data and making a call to the pricing engine which would return the price and discounts(if any).

Setup

Involves passing information to the pricing engine

1. Control Record Information

   Control Record has parameters which control the behaviour of the pricing engine. Please refer to the example script for more details

2. Request/Order Line Information

   Request Line has information which contains the elements in the calling application that requires a base and adjusted price . It may equate to a transaction line or transaction header record in the calling application. Refer to qp_engine_testing.sql for information on setting up the request line data.

   LINE_REC_TYPE is the record structure that needs to be filled in when passing information related to a request line.

3. Qualifiers and Pricing Attributes Information

   Qualifiers and Pricing Attributes information that helps the pricing engine to determine the price list lines and modifier list lines for which a price request is eligible.

Pricing Attributes and Qualifier Attributes Setup

LINE_ATTR_REC_TYPE is the record structure that needs to be filled in when passing information related to a pricing attribute. The following are the important columns:

- PRICING_CONTEXT
- PRICING_ATTRIBUTE
- PRICING_ATTR_VALUE_FROM

QUAL_REC_TYPE is the record structure that needs to be filled in when passing information related to a qualifiers. The following are the important columns:

- QUALIFIER_CONTEXT

- QUALIFIER_ATTRIBUTE
- QUALIFIER_ATTR_VALUE_FROM

Any attribute for example Item, Price List Id, Customer Name, Order Type etc. will have a mapping to give the Context, Attribute, Value_Id (will be the actual value). For more information on seeded attributes, see: *Oracle Advanced Pricing User's Guide*. Please refer to the following examples:

Table 3–156 Pricing Attributes and Qualifier Attributes

Attribute	Attribute Name	Context	Attribute	Value_Id (id)	Value (Name)
Pricing Attribute	Inventory Item Id	ITEM	PRICING_ ATTRIBUTE1	149	AS54888
Pricing Attribute	Plastics	ITEM	PRICING_ ATTRIBUTE2	29	PLASTIC
Qualifier	Order Type	ORDER	QUALIFIER_ ATTRIBUTE1	1000	Standard
Qualifier	Customer	CUSTOMER	QUALIFIER_ ATTRIBUTE1	100	Business World
Qualifier	Price List	MODLIST	QUALIFIER_ ATTRIBUTE4	1000	Corporate
Qualifier	Agreement Type	ORDER	QUALIFIER_ ATTRIBUTE9	RESELLER	RESELLER
Qualifier	Order Date	ORDER	QUALIFIER_ ATTRIBUTE5	2000/12/10 00:00:00	

Note: Dates and Numbers are to be passed in canonical format Canonical Date Format: YYYY/MM/DD HH24:MM:SS Ex: select fnd_date.date_to_canonical ('01-OCT-2000') from dual; Canonical Number Format, '.' is the decimal separator. For example, select fnd_number.number_to_canonical(2000.45) from dual.

See Order Date in the preceding matrix.

Interpreting the results from the pricing engine

1. Request Line Information

The output request line record would have the unit_price and adjusted unit price information.Please refer to the example to see more details.

2. Price List/Discount Related Information

   The output request line detail record would have the price list line and modifier list line detail information like the unit_price value, discount percentage etc. Please refer to API Doc for more explanation on each of the columns of the output record structure.

3. Qualifiers and Pricing Attributes

   The output qualifier and pricing attribute records would have the qualifiers and pricing attributes which qualified the price list line or modifier list line . Please refer to API Doc for more explanation on each of the columns of the output record structure.

4. Related Lines Information

   This record structure has information related to Service Lines Relationship , Price Break Lines Relationship, OID Modifier Line relationship , PRG Modifier Line Relationship and Order To Line Relationship(Type - ORDER_TO_LINE) which tells an Order Level Discount was applied to which Lines.

Pricing Object Security - Check Function API

This section explains how to use the Pricing Object Security CHECK_FUNCTION API and how it functions in Oracle Advanced Pricing.

The CHECK_FUNCTION API is used to check if a specific user, logging in with a specific responsibility and within a specific operating unit, can have the functional access to a specific pricing object or not. The package QP_SECURITY contains the function CHECK_FUNCTION. In our pricing data security system, we define two levels of functional access: QP_SECU_VIEW access and QP_SECU_UPDATE access. The data model is additive, so, this API will check all existing security rules and decide to authorize the user with the functional access or deny him.

Functional Overview

This API will take the parameters and check the pricing object security rules which have been setup in the pricing data security system.

The parameter p_function_name is required and can take 2 different values – 'QP_SECU_VIEW' or 'QP_SECU_UPDATE'.

The parameter p_instance_type is required and can take 3 different values – 'PRL' for type of standard pricelist, 'MOD' for type of modifier list, and 'AGR' for type of agreement pricelist.

The parameter p_instance_pk1_value is required and is the list_header_id from qp_list_headers_b for a specific pricing object.

The parameter p_instance_pk2_value and p_instance_pk3_value are not in use now. This is for future consideration, in case that the pricing objects to be secured have composite keys.

The parameter p_user_name, p_resp_id and p_org_id are optional. If they are not passed in, CHECK_FUNCTION will take the values from the current user and the corresponding settings for responsibility and operating unit.

This API will return one of the three values as follows:

'T', means the user has the asking-for functional access to the pricing object.

'F', means the user has been denied with the access.

'E-<error message>', means error happened within the API.

Setting Up and Parameter Descriptions

The following chart describes all parameters used by the public Pricing Object Security Check API. All of the inbound and outbound parameters are listed. Additional information on these parameters may follow.

CHECK_FUNCTION

The following table shows the parameters for this structure.

Table 3–157 CHECK_FUNCTION

Parameter	Usage	Type	Req	Drv
p_function_name	In	Varchar2	Yes	No
p_instance_type	In	Varchar2	Yes	No
p_instance_pk1	In	Number	Yes	No
p_instance_pk2	In	Number	No	No
p_instance_pk3	In	Number	No	No
p_user_name	In	Varchar2	No	Yes
p_resp_id	In	Number	No	Yes
p_org_id	In	Number	No	Yes
Function return value	Out	Varchar2	Yes	No

A key of the short names and definitions used in the API tables are provided in the following table:

Table 3–158 Short Names Key

Short name	Definition
Drv	Derived
Req	Required Yes : This is a required parameter. No : This is an optional parameter.
N/A (no entry)	No value/not applicable

Validation of Pricing Object Security API

Standard Validation

Oracle Advanced Pricing validates all required columns in the CHECK_ FUNCTION API. For more information, see: *Oracle Pricing Technical Reference Manual*.

Other Validation

None

Error Handling

If any validation fails, the API will return error to the calling module.

Table 3–159 Error Handling

Condition	Function Return Value
Success	T or F
Failure	E-error message

QP_ATTRIBUTES_PUB Application Program Interface

Functional Overview

The Public package QP_ATTRIBUTES_PUB is a Business Object API, based on the following tables. QP_PRC_CONTEXTS_B/TL, QP_SEGMENTS_B/TL tables. This API does all the transaction processing for all the data that is inserted, updated or deleted from Contexts and Attributes. The Business API Model is as shown below :

The Object Name is Attributes and the object code is ATR.

Procedure PROCESS_ATTRIBUTES

The following table shows the parameters for this structure. This procedure is used to add, update or delete contexts and attributes.

Table 3–160 PROCESS_ATTRIBUTES

Parameter	Usage	Type	Req	Drv
p_api_version_number	In	Number	No	No
p_init_msg_list	In	Varchar2	No	No
p_return_values	In	Varchar2	No	No
p_commit	In	Varchar2	No	No
x_return_status	Out	Number	No	No
x_msg_count	Out	Varchar2	No	No
x_msg_data	Out	Varchar2	No	No
p_CON_rec	In	Con_Rec_Type	No	No
p_CON_val_rec	In	Con_Val_Rec_Type	No	No
p_SEG_tbl	In	Con_Tbl_Type	No	No
p_SEG_val_tbl	In	Con_Val_Tbl_Type	No	No
x_CON_rec	Out	Con_Rec_Type	No	No
x_CON_val_rec	Out	Con_Val_Rec_Type	No	No
x_SEG_tbl	Out	Con_Tbl_Type	No	No
x_SEG_val_tbl	Out	Con_Val_Tbl_Type	No	No

p_api_version_number

This the version number of the API.

P_CON_REC

The following table shows the parameters for this structure.

Table 3–161 P_CON_REC

Parameter	Usage	Type	Req	Drv
Prc_context_code	Null	Varchar2	Yes	No
Prc_context_id	Null	Number	Yes	No
Prc_context_type	Null	Varchar2	Yes	No
Program_application_id	Null	Number	No	No
Program_id	Null	Number	No	No
Program_update_date	Null	Date	No	No
Seeded_description	Null	Varchar2	No	No
Seeded_flag	Null	Varchar2	Yes	No
Seeded_prc_context_name	Null	Varchar2	No	No
User_description	Null	Varchar2	No	No
User_prc_context_name	Null	Varchar2	No	No
Return_status	Null	Varchar2	No	No
Db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	No	No

P_CON_VAL_REC

The following table shows the parameters for this structure.

Table 3–162 P_CON_VAL_REC

Parameter	Usage	Type	Req	Drv
Enabled	Null	Varchar2	Yes	No
Prc_context	Null	Varchar2	Yes	No
Seeded	Null	Varchar2	Yes	No

P_SEG_TBL

The following table shows the parameters for this structure.

Table 3–163 P_SEG_TBL

Parameter	Usage	Type	Req	Drv
P_Seg_Tbl	Null	TABLE OF Seg_Rec_Type		

P_SEG_VAL_TBL

The following table shows the parameters for this structure.

Table 3–164 P_SEG_VAL_TBL

Parameter	Usage	Type	Req	Drv
P_Seg_Val_Tbl	Null	TABLE OF Seg_Val_Rec_Type		

X_CON_REC

The following table shows the parameters for this structure.

Table 3–165 X_CON_REC

Parameter	Usage	Type	Req	Drv
Prc_context_code	Null	Varchar2	No	No
Prc_context_id	Null	Number	No	No
Prc_context_type	Null	Varchar2	No	No
Program_application_id	Null	Number	No	No
Program_id	Null	Number	No	No
Program_update_date	Null	Date	No	No
Seeded_description	Null	Varchar2	No	No
Seeded_flag	Null	Varchar2	No	No
Seeded_prc_context_ name	Null	Varchar2	No	No
User_description	Null	Varchar2	No	No
User_prc_context_name	Null	Varchar2	No	No
Return_status	Null	Varchar2	No	No

Table 3–165 X_CON_REC

Parameter	Usage	Type	Req	Drv
Db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	No	No

X_CON_VAL_REC

The following table shows the parameters for this structure.

Table 3–166 X_CON_VAL_REC

Parameter	Usage	Type	Req	Drv
Enabled	Null	Varchar2	No	No
Prc_context	Null	Varchar2	No	No
Seeded	Null	Varchar2	No	No

X_SEG_TBL

The following table shows the parameters for this structure.

Table 3–167 X_SEG_TBL

Parameter	Usage	Type	Req	Drv
-	Null	TABLE OF Seg_Rec_Type	No	No

X_SEG_VAL_TBL

The following table shows the parameters for this structure.

Table 3–168 X_SEG_VAL_TBL

Parameter	Usage	Type	Req	Drv
-	Null	TABLE OF Seg_Val_Rec_Type	No	No

Procedure LOCK_ATTRIBUTES

The following table shows the parameters for this structure. Users can use this procedure to lock a context row and its attributes from getting updated by another user concurrently.

Table 3–169 LOCK_ATTRIBUTES

Parameter	Usage	Type	Req	Drv
p_api_version_ number	In	Number	Yes	No
p_init_msg_list	In	Varchar2	No	No
p_return_values	In	Varchar2	No	No
x_return_status	Out	Number	No	No
x_msg_count	Out	Varchar2	No	No
x_msg_data	Out	Varchar2	No	No
p_CON_rec	In	Con_Rec_Type	No	No
p_CON_val_rec	In	Con_Val_Rec_Type	No	No
p_SEG_tbl	In	Con_Tbl_Type	No	No
p_SEG_val_tbl	In	Con_Val_Tbl_Type	No	No
x_CON_rec	Out	Con_Rec_Type	No	No
x_CON_val_rec	Out	Con_Val_Rec_Type	No	No
x_SEG_tbl	Out	Con_Tbl_Type	No	No
x_SEG_val_tbl	Out	Con_Val_Tbl_Type	No	No

p_api_version_number

This the version number of the API.

P_CON_REC

The following table shows the parameters for this structure.

Table 3–170 P_CON_REC

Parameter	Usage	Type	Req	Drv
Prc_context_code	Null	Varchar2	Yes	No
Prc_context_id	Null	Number	Yes	No
Prc_context_type	Null	Varchar2	Yes	No
Program_application_id	Null	Number	No	No
Program_id	Null	Number	No	No

Table 3–170 P_CON_REC

Parameter	Usage	Type	Req	Drv
Program_update_date	Null	Date	No	No
Seeded_description	Null	Varchar2	No	No
Seeded_flag	Null	Varchar2	Yes	No
Seeded_prc_context_name	Null	Varchar2	No	No
User_description	Null	Varchar2	No	No
User_prc_context_name	Null	Varchar2	No	No
Return_status	Null	Varchar2	No	No
Db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	No	No

P_CON_VAL_REC

The following table shows the parameters for this structure.

Table 3–171 P_CON_VAL_REC

Parameter	Usage	Type	Req	Drv
Enabled	Null	Varchar2	Yes	No
Prc_context	Null	Varchar2	Yes	No
Seeded	Null	Varchar2	Yes	No

The following table shows the parameters for these table structures:

Table 3–172 Parameters

Table name	Usage	Type
P_SEG_TBL	Null	TABLE OF Seg_Rec_Type
P_SEG_VAL_TBL	Null	TABLE OF Seg_Val_Rec_Type

X_CON_REC

The following table shows the parameters for this structure.

Table 3–173 X_CON_REC

Parameter	Usage	Type	Req	Drv
Prc_context_code	Null	Varchar2	No	No
Prc_context_id	Null	Number	No	No
Prc_context_type	Null	Varchar2	No	No
Program_application_id	Null	Number	No	No
Program_id	Null	Number	No	No
Program_update_date	Null	Date	No	No
Seeded_description	Null	Varchar2	No	No
Seeded_flag	Null	Varchar2	No	No
Seeded_prc_context_name	Null	Varchar2	No	No
User_description	Null	Varchar2	No	No
User_prc_context_name	Null	Varchar2	No	No
Return_status	Null	Varchar2	No	No
Db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	No	No

X_CON_VAL_REC

The following table shows the parameters for this structure.

Table 3–174 X_CON_VAL_REC

Parameter	Usage	Type	Req	Drv
Enabled	Null	Varchar2	No	No
Prc_context	Null	Varchar2	No	No
Seeded	Null	Varchar2	No	No

X_SEG_TBL

The following table shows the parameters for this structure.

Table 3–175 X_SEG_TBL

Parameter	Usage	Type	Req	Drv
X_Seg_Tbl	Null	TABLE OF Seg_Rec_Type		

X_SEG_VAL_TBL

The following table shows the parameters for this structure.

Table 3–176 X_SEG_VAL_TBL

Parameter	Usage	Type	Req	Drv
X_Seg_Val_Tbl	Null	TABLE OF Seg_Val_Rec_Type		

Procedure GET_ATTRIBUTES

The following table shows the parameters for this structure. This procedure fetches the context and all its attributes, when prc_context_id is provided.

Table 3–177 GET_ATTRIBUTES

Parameter	Usage	Type	Req	Drv
p_api_version_number	In	Number	Yes	No
p_init_msg_list	In	Varchar2	No	No
p_return_values	In	Varchar2	No	No
x_return_status	Out	Number	No	No
x_msg_count	Out	Varchar2	No	No
x_msg_data	Out	Varchar2	No	No
p_prc_context_id	In	Number	No	No
p_prc_context	In	Varchar2	No	No
x_CON_rec	Out	Con_Rec_Type	No	No
x_CON_val_rec	Out	Con_Val_Rec_Type	No	No
x_SEG_tbl	Out	Con_Tbl_Type	No	No
x_SEG_val_tbl	Out	Con_Val_Tbl_Type	No	No

p_api_version_number

This the version number of the API.

p_prc_context_id

This the primary key for a given context. The API will fetch all the context and all the attributes for this value.

p_prc_context

This the unique code for a given context. The API will fetch all the context and all the attributes for this value.

X_CON_REC

The following table shows the parameters for this structure.

Table 3–178 X_CON_REC

Parameter	Usage	Type	Req	Drv
Prc_context_code	Null	Varchar2	No	No
Prc_context_id	Null	Number	No	No
Prc_context_type	Null	Varchar2	No	No
Program_application_id	Null	Number	No	No
Program_id	Null	Number	No	No
Program_update_date	Null	Date	No	No
Seeded_description	Null	Varchar2	No	No
Seeded_flag	Null	Varchar2	No	No
Seeded_prc_context_name	Null	Varchar2	No	No
User_description	Null	Varchar2	No	No
User_prc_context_name	Null	Varchar2	No	No
Return_status	Null	Varchar2	No	No
Db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	No	No

X_CON_VAL_REC The following table shows the parameters for this structure.

Table 3–179 X_CON_VAL_REC

Parameter	Usage	Type	Req	Drv
Enabled	Null	Varchar2	No	No
Prc_context	Null	Varchar2	No	No
Seeded	Null	Varchar2	No	No

X_SEG_TBL The following table shows the parameters for this structure.

Table 3–180 X_SEG_TBL

Parameter	Usage	Type	Req	Drv
X_Seg_Tbl	Null	TABLE OF Seg_Rec_Type		

X_SEG_VAL_TBL The following table shows the parameters for this structure.

Table 3–181 X_SEG_VAL_TBL

Parameter	Usage	Type	Req	Drv
X_Seg_Val_Tbl	Null	TABLE OF Seg_Val_Rec_Type		

QP_ATTR_MAPPING_PUB Application Program Interface

Functional Overview

The build_contexts API calls QP_BUILD_SOURCING_PVT, which contains sourcing calls to build attribute mapping rules for Attributes. This API is called from the OM pricing integration. OM passes request_type_code and pricing_type and this API builds the attribute mapping rules of the attributes used in the setup that can be sourced at run time. Attribute mapping rules thus built are returned in the PLSQL table structures x_price_contexts_result_tbl & x_qual_contexts_result_ tbl.

The following table shows the parameters for this structure.

Setting Up and Parameter Descriptions

The following table describes all parameters used by the public QP_ATTR_ MAPPING_PUB. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 3–182 QP_ATTR_MAPPING_PUB

Parameter	Usage	Type	Req	Drv
p_request_type_code	In	Varchar2	Yes	No
p_pricing_type	In	Varchar2	Yes	No
x_price_contexts_result_tbl	Out	CONTEXTS_ RESULT_TBL_ TYPE	No	No
x_qual_contexts_result_tbl	Out	CONTEXTS_ RESULT_TBL_ TYPE	No	No

p_request_type_code

An allowable value from the QP_PRICING_REQ_SOURCES table. This is different from source system code; groups of source system codes form a request type.

For example, CRM request type code can have the I-marketing and I-store source system codes associated with it (using QP_PRICING_REQ_SOURCES). When you call Build_ Contexts with the CRM request type, the process sources all contexts for both I-marketing and I-store source systems.

p_pricing_type

Indicates the sourcing rules to use when building the attributes. Allowable values are:

- L (Line): The process builds the pricing contexts based on the rules associated with the line pricing attributes entity and builds the qualifier contexts based on the rules associated with the line qualifier attribute
- H (Header): The process builds the pricing contexts based on the rules associated with the header pricing attributes entity and builds the qualifier contexts based on the rules associated with the header qualifier attributes.

CONTEXTS_RESULT_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–183 CONTEXTS_RESULT_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Contexts_Result_Tbl_Type	Out	Contexts_Result_Rec_Type	No	NO

CONTEXTS_RESULT_REC_TYPE

The following table shows the parameters for this structure.

Table 3–184 CONTEXTS_RESULT_REC_TYPE

Parameter	Usage	Type	Req	Drv
context_name	Null	Varchar2	No	No
attribute_name	Null	Varchar2	No	No
Attribute_value	Null	Varchar2	No	No

Procedure BUILD_CONTEXTS (overloaded)

This API is called from the Order Management (OM) pricing integration in the performant code path. OM passes request_type_code and pricing_type and this API builds the attribute mapping rules of the attributes used in the setup that can be sourced at run time. Attribute mapping rules thus built are inserted into the pricing temporary table QP_PREQ_LINE_ATTRS_TMP for the passed in line_index.

The following table shows the parameters for this structure.

Table 3–185 BUILD_CONTEXTS (overloaded)

Parameter	Usage	Type	Req	Drv
p_request_type_code	In	Varchar2	Yes	No

Table 3–185 BUILD_CONTEXTS (overloaded)

Parameter	Usage	Type	Req	Drv
p_line_index	In	Number	Yes	No
p_pricing_type_code	In	Varchar2	Yes	No

p_request_type_code

An allowable value from the QP_PRICING_REQ_SOURCES table. This is different from source system code; groups of source system codes form a request type.

For example, CRM request type code can have the I-marketing and I-store source system codes associated with it (using QP_PRICING_REQ_SOURCES). When you call Build_ Contexts with the CRM request type, the process sources all contexts for both I-marketing and I-store source systems.

P_line_index

Unique identifier for line in the table qp_preq_lines_tmp.

p_pricing_type

Indicates the sourcing rules to use when building the attributes. Allowable values are:

- L (Line): The process builds the pricing contexts based on the rules associated with the line pricing attributes entity and builds the qualifier contexts based on the rules associated with the line qualifier attribute
- H (Header): The process builds the pricing contexts based on the rules associated with the header pricing attributes entity and builds the qualifier contexts based on the rules associated with the header qualifier attributes.

Procedure Get_User_Item_Pricing_Contexts

This API returns the pricing contexts whose sourcing method is USER ENTERED.This API is called from the OM pricing integration. OM passes request_ type_code and this API returns the pricing contexts whose sourcing method is USER ENTERED in the PLSQL table structure p_user_attribs_tbl.

The following table shows the parameters for this structure.

Table 3–186 Get_User_Item_Pricing_Contexts

Parameter	Usage	Type	Req	Drv
p_request_type_code	In	Varchar2	Yes	No
p_user_attribs_tbl	Out	USER_ATTRIBUTE_TBL_TYPE	No	No

p_request_type_code

An allowable value from the QP_PRICING_REQ_SOURCES table. This is different from source system code; groups of source system codes form a request type.

For example, CRM request type code can have the I-marketing and I-store source system codes associated with it (using QP_PRICING_REQ_SOURCES). When you call Build_ Contexts with the CRM request type, the process sources all contexts for both I-marketing and I-store source systems.

USER_ATTRIBUTE_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–187 USER_ATTRIBUTE_TBL_TYPE

Parameter	Usage	Type	Req	Drv
User_Attribute_Tbl_Type	Out	User_Attribute_Rec_Type	No	No

USER_ATTRIBUTE_REC_TYPE

The following table shows the parameters for this structure.

Table 3–188 USER_ATTRIBUTE_REC_TYPE

Parameter	Usage	Type	Req	Drv
context_name	Null	Varchar2	No	No
attribute_name	Null	Varchar2	No	No

Function Is_attribute_used

This API is used to find out whether pricing attribute is used in the pricing setup. This API is called by the pricing engine. The pricing engine passes context and pricing attribute to this function and this API returns the attribute used flag (Y/N).

The following table shows the parameters for this structure.

Table 3–189 Is_attribute_used

Parameter	Usage	Type	Req	Drv
p_attribute_context	In	Varchar2	No	No
p_attribute_code	In	Varchar2	No	No

p_attribute_context

A context name set up in the context definition table, for example, item, customer, or volume.

p_attribute_code

Name of the attribute for the sourcing rule, for example, PRICING_ATTRIBUTE1, PRICING_ATTRIBUTE2, or QUALIFIER_ATTRIBUTE1.

Validation of Attribute Mapping API

Standard Validation

Oracle Advanced Pricing validates all required columns in the Attribute Mapping API. For more information, see: *Oracle Pricing Technical Reference Manual.*

Other Validation

None

Error Handling

If any validation fails, the API will return error status to the calling module. The Attribute Mapping API processes the rows and reports the values in the following table for every record.

Table 3–190 Error Handling

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	Null
Failure	4	actual error message

See:

Oracle Pricing Technical Reference Manual

Qualifiers Application Program Interface

This section explains how to use the Qualifiers API and how it functions in Oracle Advanced Pricing. The Qualifiers package consists of entities to set up qualifiers.

Functional Overview

The Qualifiers package QP_QUALIFIERS_RULES_PUB contains the following APIs and record type definitions:

- Qualifier_Rules_Rec_Type
- Qualifier_Rules_Tbl_Type
- Qualifier_Rules_Val_Rec_Type
- Qualifier_Rules_Val_Tbl_Type
- Qualifiers_Rec_Type
- Qualifiers_Tbl_Type
- Qualifiers_Val_Rec_Type
- Qualifiers_Val_Tbl_Type
- Process_Qualifier_Rules: Creates, updates, and deletes pricing qualifier rules and pricing qualifiers belonging to those rules.
- Lock_Qualifier_Rules: Locks table rows.
- Get_Qualifier_Rules: Retrieves the qualifier rule and qualifiers for a given qualifier rule ID or qualifier rule name.
- Copy_Qualifier_Rules: Creates a new qualifier rule with the name in p_to_ qualifier_ rule. Also, copies the qualifiers belonging to the qualifier rule specified by the qualifier rule in p_qualifier_rule or the qualifier rule ID in p_ qualifier_rule_id into a new qualifier rule. Returns qualifier rule ID for the new qualifier rule.

Setting Up and Parameter Descriptions

The following chart describes all parameters used by the public Qualifiers. All of the inbound and outbound parameters are listed. Additional information on these parameters may follow.

PROCESS_QUALIFIER_RULES

The following table shows the parameters for this structure.

Table 3–191 PROCESS_QUALIFIER_RULES

Parameter	Usage	Type	Req	Drv
p_api_version_number	In	Number	No	No
p_init_msg_list	In	Varchar2	No	No
p_return_values	In	Varchar2	No	No
p_commit	In	Varchar2	No	No
x_return_status	Out	Varchar2	No	No
x_msg_count	Out	Number	No	No
x_msg_data	Out	Varchar2	No	No
p_QUALIFIER_RULES_ rec	In	Qualifier_Rules_ Rec_Type	No	No
p_QUALIFIER_RULES_ val_rec	In	Qualifier_Rules_ Val_Rec_ Type	No	No
p_QUALIFIERS_tbl	In	Qualifiers_Tbl_ Type	No	No
p_QUALIFIERS_val_tbl	In	Qualifiers_Val_ Tbl_Type	No	No
x_QUALIFIER_RULES_ rec	Out	Qualifier_Rules_ Rec_Type	No	No
x_QUALIFIER_RULES_ val_rec	Out	Qualifier_Rules_ Val_Rec_ Type	No	No
x_QUALIFIERS_tbl	Out	Qualifiers_Tbl_ Type	No	No
x_QUALIFIERS_val_tbl	Out	Qualifiers_Val_ Tbl_Type	No	No

p_init_msg_list

Default Value: FND_API.G_FALSE

p_return_values

Default Value: FND_API.G_FALSE

p_commit

Default Value: FND_API.G_FALSE

p_QUALIFIER_RULES_rec

In this procedure, P_QUALIFIER_RULES_rec.operation states the operation that the process should perform. Allowable values of P_QUALIFIER_RULES_rec.operation are:

- QP_GLOBALS.G_OPR_CREATE
- QP_GLOBALS.G_OPR_DELETE
- QP_GLOBALS.G_OPR_UPDATE
- QP_GLOBALS.G_OPR_LOCK
- QP_GLOBALS.G_OPR_NONE

Default Value: G_MISS_QUALIFIER_RULES_REC

p_QUALIFIER_RULES_val_rec

Default Value: G_MISS_QUALIFIER_RULES_VAL_REC

p_QUALIFIERS_tbl

Default Value: G_MISS_QUALIFIERS_TBL

p_QUALIFIERS_val_tbl

Default Value: G_MISS_QUALIFIERS_VAL_TBL

QUALIFIER_RULES_REC_TYPE

The following table shows the parameters for this structure.

Table 3–192 QUALIFIER_RULES_REC_TYPE

Parameter	Usage	Type	Req	Drv
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No

Table 3–192 QUALIFIER_RULES_REC_TYPE

Parameter	Usage	Type	Req	Drv
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No
context	Null	Varchar2	No	No
created_by	Null	Number	No	No
creation_date	Null	Date	No	No
description	Null	Varchar2	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
name	Null	Varchar2	Yes	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No
qualifier_rule_id	Null	Number	No	No
request_id	Null	Number	No	No
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	Yes	No

attribute1-15

Default Value: FND_API.G_MISS_CHAR

context
Default Value: FND_API.G_MISS_CHAR

created_by
Default Value: FND_API.G_MISS_NUM

creation_date
Default Value: FND_API.G_MISS_DATE

description
Default Value: FND_API.G_MISS_CHAR

last_updated_by
Default Value: FND_API.G_MISS_NUM

last_update_date
Default Value: FND_API.G_MISS_DATE

last_update_login
Default Value: FND_API.G_MISS_NUM

name
Default Value: FND_API.G_MISS_CHAR

program_application_id
Default Value: FND_API.G_MISS_NUM

program_id
Default Value: FND_API.G_MISS_NUM

program_update_date
Default Value: FND_API.G_MISS_DATE

qualifier_rule_id
Default Value: Comes from the sequence QP_QUALIFIER_RULES_S

request_id
Default Value: FND_API.G_MISS_NUM

return_status
Default Value: FND_API.G_MISS_CHAR

db_flag
Default Value: FND_API.G_MISS_CHAR

operation
Default Value: FND_API.G_MISS_CHAR

QUALIFIER_RULES_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–193 QUALIFIER_RULES_TBL_TYPE

Parameter	Usage	Type	Req	Drv
Qualifier_Rules_Rec_ Type	Null	Record	No	No

QUALIFIER_RULES_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–194 QUALIFIER_RULES_VAL_REC_TYPE

Parameter	Usage	Type	Req	Drv
qualifier_rule	Null	Varchar2	No	No

qualifier_rule
Default Value: FND_API.G_MISS_CHAR

QUALIFIER_RULES_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–195 QUALIFIER_RULES_VAL_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Optional	Qualifier_Rules_Val_Rec_ Type	Null	Record	No
No	No			

QUALIFIERS_REC_TYPE

The following table shows the parameters for this structure.

Table 3–196 QUALIFIERS_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
attribute1	Null	Varchar2	No	No
attribute2	Null	Varchar2	No	No
attribute3	Null	Varchar2	No	No
attribute4	Null	Varchar2	No	No
attribute5	Null	Varchar2	No	No
attribute6	Null	Varchar2	No	No
attribute7	Null	Varchar2	No	No
attribute8	Null	Varchar2	No	No
attribute9	Null	Varchar2	No	No
attribute10	Null	Varchar2	No	No
attribute11	Null	Varchar2	No	No
attribute12	Null	Varchar2	No	No
attribute13	Null	Varchar2	No	No
attribute14	Null	Varchar2	No	No
attribute15	Null	Varchar2	No	No
comparison_operator_ code	Null	Varchar2	Yes	No
context	Null	Varchar2	No	No

Table 3–196 QUALIFIERS_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
created_by	Null	Number	No	No
created_from_rule_id	Null	Number	No	No
creation_date	Null	Date	No	No
end_date_active	Null	Date	No	No
excluder_flag	Null	Varchar2	No	No
last_updated_by	Null	Number	No	No
last_update_date	Null	Date	No	No
last_update_login	Null	Number	No	No
list_header_id	Null	Number	No	No
list_line_id	Null	Number	No	No
program_application_id	Null	Number	No	No
program_id	Null	Number	No	No
program_update_date	Null	Date	No	No
qualifier_attribute	Null	Varchar2	Yes	No
qualifier_attr_value	Null	Varchar2	Yes	No
qualifier_attr_value_to	Null	Varchar2	No	No
qualifier_context	Null	Varchar2	Yes	No
qualifier_datatype	Null	Varchar2	No	Yes
qualifier_grouping_no	Null	Number	No	No
qualifier_id	Null	Number	No	No
qualifier_precedence	Null	Number	No	No
qualifier_rule_id	Null	Number	No	No
request_id	Null	Number	No	No
start_date_active	Null	Date	No	No
qual_attr_value_from_ number	Null	Number	No	Yes
qual_attr_value_to_ number	Null	Number	No	Yes

Table 3–196 QUALIFIERS_REC_TYPE Parameters

Parameter	Usage	Type	Req	Drv
active_flag	Null	Varchar2	No	No
search_ind	Null	Number	No	Yes
qualifier_group_cnt	Null	Number	No	Yes
header_quals_exist_flag	Null	Varchar2	No	Yes
distinct_row_count	Null	Number	No	Yes
return_status	Null	Varchar2	No	No
db_flag	Null	Varchar2	No	No
operation	Null	Varchar2	Yes	No

attribute1–15
Default Value: FND_API.G_MISS_CHAR

comparison_operator_code
Default Value: FND_API.G_MISS_CHAR

context
Default Value: FND_API.G_MISS_CHAR

created_by
Default Value: FND_API.G_MISS_NUM

created_from_rule_id
Default Value: FND_API.G_MISS_NUM

creation_date
Default Value: FND_API.G_MISS_DATE

end_date_active
Default Value: FND_API.G_MISS_DATE

excluder_flag
Default Value: 'N'

last_updated_by
Default Value: FND_API.G_MISS_NUM

last_update_date
Default Value: FND_API.G_MISS_DATE

last_update_login
Default Value: FND_API.G_MISS_NUM

list_header_id
Default Value: FND_API.G_MISS_NUM

list_line_id
Default Value: FND_API.G_MISS_NUM

program_application_id
Default Value: FND_API.G_MISS_NUM

program_id
Default Value: FND_API.G_MISS_NUM

program_update_date
Default Value: FND_API.G_MISS_DATE

qualifier_attribute
Default Value: FND_API.G_MISS_CHAR

qualifier_attr_value
Default Value: FND_API.G_MISS_CHAR

qualifier_attr_value_to
Default Value: FND_API.G_MISS_CHAR

qualifier_context
Default Value: FND_API.G_MISS_CHAR

qualifier_datatype
Default Value: FND_API.G_MISS_CHAR

qualifier_grouping_no
Default Value: FND_API.G_MISS_NUM

qualifier_id
Default Value: From sequence QP_QUALIFIERS_S

qualifier_precedence
Default Value: FND_API.G_MISS_NUM

qualifier_rule_id
Default Value: FND_API.G_MISS_NUM

request_id
Default Value: FND_API.G_MISS_NUM

start_date_active
Default Value: FND_API.G_MISS_DATE

qual_attr_value_from_number
Default Value: FND_API.G_MISS_NUM

qual_attr_value_to_number
Default Value: FND_API.G_MISS_NUM

active_flag
Default Value: FND_API.G_MISS_CHAR

search_ind
Default Value: FND_API.G_MISS_NUM

qualifier_group_cnt
Default Value: FND_API.G_MISS_NUM

header_quals_exist_flag
Default Value: FND_API.G_MISS_CHAR

distinct_row_count
Default Value: FND_API.G_MISS_NUM

return_status
Default Value: FND_API.G_MISS_CHAR

db_flag
Default Value: FND_API.G_MISS_CHAR

operation
Default Value: FND_API.G_MISS_CHAR

QUALIFIERS_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–197 QUALIFIERS_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Qualifiers_Rec_Type	Null	Record	No	No

QUALIFIER_VAL_REC_TYPE

The following table shows the parameters for this structure.

Table 3–198 QUALIFIER_VAL_REC_TYPE

Parameter	Usage	Type	Req	Drv
created_from_rule	Null	Varchar2	No	No
list_header	Null	Varchar2	No	No
list_line	Null	Varchar2	No	No
qualifier_rule	Null	Varchar2	No	No
qualifier_attribute_desc	Null	Varchar2	No	No
qualifier_attr_value_desc	Null	Varchar2	No	No
qualifier_attr_value_to_desc	Null	Varchar2	No	No

created_from_rule
Default Value: FND_API.G_MISS_CHAR

list_header
Default Value: FND_API.G_MISS_CHAR

list_line
Default Value: FND_API.G_MISS_CHAR

qualifier_rule
Default Value: FND_API.G_MISS_CHAR

qualifier_attribute_desc
Default Value: FND_API.G_MISS_CHAR

qualifier_attr_value_desc
Default Value: FND_API.G_MISS_CHAR

qualifier_rule_value_to_desc
Default Value: FND_API.G_MISS_CHAR

QUALIFIERS_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Table 3–199 QUALIFIERS_VAL_TBL_TYPE Parameters

Parameter	Usage	Type	Req	Drv
Qualifiers_Val_Rec_Type	Null	Record	No	No

LOCK_QUALIFIER_RULES

The following table shows the parameters for this structure.

Table 3–200 LOCK_QUALIFIER_RULES Parameters

Parameter	Usage	Type	Req	Drv
p_api_version_number	In	Number	No	No
p_init_msg_list	In	Varchar2	No	No

Table 3–200 LOCK_QUALIFIER_RULES Parameters

Parameter	Usage	Type	Req	Drv
p_return_values	In	Varchar2	No	No
x_return_status	Out	Varchar2	No	No
x_msg_count	Out	Number	No	No
x_msg_data	Out	Varchar2	No	No
p_QUALIFIER_RULES_ rec	In	Qualifier_Rules_ Rec_Type	No	No
p_QUALIFIER_RULES_ val_rec	In	Qualifier_Rules_ Val_Rec_Type	No	No
p_QUALIFIERS_tbl	In	Qualifiers_Tbl_ Type	No	No
p_QUALIFIERS_val_tbl	In	Qualifiers_Val_ Tbl_Type	No	No
x_QUALIFIER_RULES_ rec	Out	Qualifier_Rules_ Rec_Type	No	No
x_QUALIFIER_RULES_ val_rec	Out	Qualifier_Rules_ Val_Rec_Type	No	No
x_QUALIFIERS_tbl	Out	Qualifiers_Tbl_ Type	No	No
x_QUALIFIERS_val_tbl	Out	Qualifiers_Val_ Tbl_Type	No	No

p_init_msg_list
Default Value: FND_API.G_FALSE

p_return_values
Default Value: FND_API.G_FALSE

p_QUALIFIER_RULES_rec
Default Value: G_MISS_QUALIFIER_RULES_REC

p_QUALIFIER_RULES_val_rec
Default Value: G_MISS_QUALIFIER_RULES_VAL_REC

p_QUALIFIERS_tbl
Default Value: G_MISS_QUALIFIERS_TBL

p_QUALIFIERS_val_tbl
Default Value: G_MISS_QUALIFIERS_VAL_TBL

GET_QUALIFIER_RULES

The following table shows the parameters for this structure.

Table 3–201 GET_QUALIFIER_RULES Parameters

Parameter	Usage	Type	Req	Drv
p_api_version_number	In	Number	No	No
p_init_msg_list	In	Varchar2	No	No
p_return_values	In	Varchar2	No	No
x_return_status	Out	Varchar2	No	No
x_msg_count	Out	Number	No	No
x_msg_data	Out	Varchar2	No	No
p_qualifier_rule_id	In	Number	No	No
p_qualifier_rule	In	Varchar2	No	No
x_QUALIFIER_RULES_ rec	Out	Qualifier_Rules_ Rec_Type	No	No
x_QUALIFIER_RULES_ val_rec	Out	Qualifier_Rules_ Val_Rec_ Type	No	No
x_QUALIFIERS_tbl	Out	Qualifiers_Tbl_ Type	No	No
x_QUALIFIERS_val_tbl	Out	Qualifiers_Val_ Tbl_Type	No	No

p_init_msg_list
Default Value: FND_API.G_FALSE

p_return_values
Default Value: FND_API.G_FALSE

p_qualifier_rule_id
Default Value: FND_API.G_MISS_NUM

p_qualifier_rule
Default Value: FND_API.G_MISS_CHAR

COPY_QUALIFIER_RULES

The following table shows the parameters for this structure.

Table 3–202 COPY_QUALIFIER_RULES Parameters

Parameter	Usage	Type	Req	Drv
p_api_version_number	In	Number	No	No
p_init_msg_list	In	Varchar2	No	No
p_return_values	In	Varchar2	No	No
p_commit	In	Varchar2	No	No
x_return_status	Out	Varchar2	No	No
x_msg_count	Out	Number	No	No
x_msg_data	Out	Varchar2	No	No
p_qualifier_rule_id	In	Number	No	No
p_qualifier_rule	In	Varchar2	No	No
p_to_qualifier_rule	In	Varchar2	No	No
p_to_description	In	Varchar2	No	No
x_qualifier_rule_id	Out	Number	No	No

p_init_msg_list
Default Value: FND_API.G_FALSE

p_return_values
Default Value: FND_API.G_FALSE

p_commit
Default Value: FND_API.G_FALSE

p_qualifier_rule_id
Default Value: FND_API.G_MISS_NUM

p_qualifier_rule
Default Value: FND_API.G_MISS_CHAR

p_to_description
Default Value: FND_API.G_MISS_CHAR

Validation of Qualifiers API

Standard Validation

Oracle Advanced Pricing validates all required columns in the Qualifiers API. For more information, see: *Oracle Pricing Technical Reference Manual*.

Other Validation

None

Error Handling

If any validation fails, the API will return error status to the calling module. The Qualifiers API processes the rows and reports the values in the following table for every record.

Table 3–203 Error Handling

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	null
Failure	4	actual error message

Example of Qualifiers API

The following code can also be found in file QPQFXMP1.sql in $QP_TOP/patch/115/sql directory

```
--set serveroutput on

/*========================================================================
   Sample script which inserts a Qualifier Rule and a qualifier. Please read the
Oracle Advanced Pricing User's Guide (Appendix A & B) to understand the
flexfields and seed data.
========================================================================*/

declare

gpr_return_status varchar2(1) := NULL;
gpr_msg_count number := 0;
```

```
gpr_msg_data varchar2(2000);
gpr_qualifier_rules_rec QP_Qualifier_Rules_Pub.Qualifier_Rules_Rec_Type;
gpr_qualifier_rules_val_rec QP_Qualifier_Rules_Pub.Qualifier_Rules_Val_Rec_Type;
gpr_qualifiers_tbl QP_Qualifier_Rules_Pub.Qualifiers_Tbl_Type;
gpr_qualifiers_val_tbl QP_Qualifier_Rules_Pub.Qualifiers_Val_Tbl_Type;
ppr_qualifier_rules_rec  QP_Qualifier_Rules_Pub.Qualifier_Rules_Rec_Type;
ppr_qualifier_rules_val_rec  QP_Qualifier_Rules_Pub.Qualifier_Rules_Val_Rec_
Type;
ppr_qualifiers_tbl QP_Qualifier_Rules_Pub.Qualifiers_Tbl_Type;
ppr_qualifiers_val_tbl QP_Qualifier_Rules_Pub.Qualifiers_Val_Tbl_Type;
I number := 1;

begin

/* Create qualifier rule. Set the qualifier_rule_id to g_miss_num */
    gpr_qualifier_rules_rec.qualifier_rule_id := FND_API.G_MISS_NUM;
    gpr_qualifier_rules_rec.name := 'Sample1-QF 1024-2';
    gpr_qualifier_rules_rec.description := 'Sample Qualifier Rule';
    gpr_qualifier_rules_rec.operation := QP_GLOBALS.G_OPR_CREATE;

/* Create a qualifier */
    I := 1;

    gpr_qualifiers_tbl(I).QUALIFIER_ID := FND_API.G_MISS_NUM;
    gpr_qualifiers_tbl(I).EXCLUDER_FLAG := 'N';
    gpr_qualifiers_tbl(I).QUALIFIER_GROUPING_NO := 1;
    gpr_qualifiers_tbl(I).QUALIFIER_CONTEXT := 'ORDER';

gpr_qualifiers_tbl(I).QUALIFIER_ATTRIBUTE := 'QUALIFIER_ATTRIBUTE13';

--Corresponds to Qualifier Attribute 'Order Category'
    gpr_qualifiers_tbl(I).QUALIFIER_ATTR_VALUE := 'MIXED';
    gpr_qualifiers_tbl(I).COMPARISON_OPERATOR_CODE  := '=';
    gpr_qualifiers_tbl(I).OPERATION := QP_GLOBALS.G_OPR_CREATE;
--dbms_output.put_line('before process qualifier rules');
```

QP_QUALIFIER_RULES_PUB.Process_Qualifier_Rules

```
(   p_api_version_number=> 1
,   p_init_msg_list=> FND_API.G_FALSE
,   p_return_values=> FND_API.G_FALSE
,   p_commit=> FND_API.G_FALSE
,   x_return_status=> gpr_return_status
,   x_msg_count=> gpr_msg_count
,   x_msg_data=> gpr_msg_data
```

```
,   p_QUALIFIER_RULES_rec=> gpr_qualifier_rules_rec
,   p_QUALIFIER_RULES_val_rec=> gpr_qualifier_rules_val_rec
,   p_QUALIFIERS_tbl=> gpr_qualifiers_tbl
,   p_QUALIFIERS_val_tbl=> gpr_qualifiers_val_tbl
,   x_QUALIFIER_RULES_rec=> ppr_qualifier_rules_rec
,   x_QUALIFIER_RULES_val_rec=> ppr_qualifier_rules_val_rec
,   x_QUALIFIERS_tbl=> ppr_qualifiers_tbl
,   x_QUALIFIERS_val_tbl=> ppr_qualifiers_val_tbl
);

IF gpr_return_status <> FND_API.G_RET_STS_SUCCESS THEN

        RAISE FND_API.G_EXC_UNEXPECTED_ERROR;

END IF;

--dbms_output.put_line('after process qualifier rules');

EXCEPTION

    WHEN FND_API.G_EXC_ERROR THEN

gpr_return_status := FND_API.G_RET_STS_ERROR;

--Get message count and data

--dbms_output.put_line('err msg 1 is : ' || gpr_msg_data);

Rollback;

    WHEN FND_API.G_EXC_UNEXPECTED_ERROR THEN

    gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

--dbms_output.put_line(' msg count 2 is : ' || gpr_msg_count);

for k in 1 .. gpr_msg_count loop

gpr_msg_data := oe_msg_pub.get( p_msg_index => k,

p_encoded => 'F'
);
    /*
        oe_msg_pub.Count_And_Get
(   p_count=> gpr_msg_count
```

```
,   p_data=> gpr_msg_data

);

*/

--Get message count and data
--dbms_output.put_line('err msg ' || k ||'is:  ' || gpr_msg_data);

null;
end loop;
    Rollback;

    WHEN OTHERS THEN

    gpr_return_status := FND_API.G_RET_STS_UNEXP_ERROR ;

--Get message count and data
--dbms_output.put_line('err msg 3 is : ' || gpr_msg_data);

Rollback;
end;
/
commit;
exit;
```

See

Oracle Pricing Technical Reference Manual

Reverse Limits Application Program Interface

This section explains how to use the Reverse Limits API and how it functions in Oracle Advanced Pricing.

Reverse Limits API Features

The Reverse Limits API is a procedure that must be called directly by Oracle Order Management (OM) to reverse any promotional limits that were consumed by an order line when the line is either cancelled, amended or returned and no pricing engine call is made. The package QP_UTIL_PUB contains the procedure Reverse_ Limits.

Note: The follow is not supported by this API:

- When the API is called with p_action_code = 'AMEND', an amended quantity that is greater than the originally ordered or consumed quantity is not supported.
- Reversal of order level discounts for an order line cancellation, amendment, or return is not supported.

Functional Overview

When an item is ordered in OM, a call is made to the pricing engine to price the item and to determine the promotions that are to be given away for the ordered item. If promotional limits have been set up for the promotions, then the promotions that are given away are consumed from this limit.

However, when the order line is either cancelled, amended or returned without making a pricing engine call (since there was no need to calculate the price of return), the promotional limits that were consumed do not get reversed.

To reverse the consumed limit when such a return, amend or cancellation occurs, OM must call this API with the right parameters to increment the available limit balance(s).

Setting Up and Parameter Descriptions

The following chart describes all parameters used by the public Reverse Limits API. All of the inbound and outbound parameters are listed. Additional information on these parameters may follow. The input parameters must be passed to the Reverse Limits API by OM and the output parameters are passed to OM.

REVERSE_LIMITS

Table 3–204 Reverse_Limits Parameters

Parameter	Usage	Type	Req	Description
p_action_code	In	Varchar2	Yes	Valid values are 'RETURN','CANCEL' and 'AMEND'
p_cons_price_ request_code	In	Varchar2	Yes	Price_Request_Code of the last, successfully priced order_line that consumed the promotional limit: ■ If the p_action_code is 'RETURN', then the price_request_code of the order line that is referenced by the returned line must be passed to this parameter. ■ If the p_action_code is 'CANCEL', then to this parameter must be passed the price_request_code of the order line/order that is being cancelled. ■ If the p_action_code is 'AMEND', then to this parameter must be passed the price_request_code of the order line that is being amended
p_orig_ ordered_qty	In	Number	Yes[1]	Priced_quantity of the last successfully priced order line that consumed the promotional limit: ■ If the p_action_code is 'RETURN', then to this parameter must be passed the priced quantity of the order line that is referenced by the returned line. ■ If the p_action_code is 'AMEND', then to this parameter must be passed the originally priced quantity of the order line that is being amended.
p_amended_ qty	In	Number	Yes[2]	The new quantity to which the original ordered or priced quantity has been amended to. The Amended Qty can be less than or equal to the originally priced qty but not greater.
p_ret_price_ request_code	In	Varchar2	Yes[3]	The price request code of the return line.
P_returned_qty	In	Number	Yes[4]	The returned quantity (the quantity on the return line).

Table 3–204 Reverse_Limits Parameters

Parameter	Usage	Type	Req	Description
x_return_status	Out	Varchar2	Yes	See Error Handling for possible values returned.
x_return_ message	Out	Varchar2	Yes	Suitable Error Message if the API returns an error status.

The following table describes the notations listed in the preceding table:

Table 3–205 Notations

Note	Description
1	When p_action_code is 'RETURN' or 'AMEND'
2	When p_action_code is 'AMEND'
3	When p_action_code is 'RETURN'
4	When p_action_code is 'RETURN'

Validation of Reverse Limits API

Standard Validation

The calling application is responsible for passing the correct parameters to the Reverse Limits API. For more information on the data described in these columns, See *Oracle Pricing Technical Reference Manual*.

Other Validation

None

Error Handling

If any exception occurs in the Reverse Limits API, it should return the error status to the calling module. The Order Management application must call the Reverse Limits API while processing Cancellations, Amendments or Returned Order Lines, when the pricing engine is not called.

Table 3–206 Error Handling

Condition	x_return_status	x_return_message
Success	FND_API.G_RET_STS_SUCCES	null
Expected Error	FND_API.G_RET_STS_ERROR	actual error message
Unexpected Error	FND_API.G_RET_STS_UNEXP_ERROR	actual error message

Note: The Package Specification and Body files are QPXRTCNS.pls and QPXRTCNB.pls and are available under the source control directory $qp/patch/115/sql.

Additional Notes

- When the API is called with p_action_code = 'AMEND', the amended quantity can less than or equal to the originally ordered or consumed quantity but not greater than the originally priced quantity. If the amended quantity is greater, then the promotional limit may potentially be exceeded, in which case, this API (which is independent of the Limits Engine) cannot perform the logic that the Pricing Limits Engine would have performed under such circumstances. (Also, Oracle Order Management handles limit reversal for under-shipped or over-shipped quantities).
- When an order line is cancelled, amended or returned, this API may be used to only reverse limits on order-line level Discounts but not order-level discounts.
- Order Cancellations are supported by this API. To achieve this, the calling application (OM) must call this API for each order line on the order to be cancelled and once with the Order's price_request_code. Number of times to call the API = no. of order lines on the order to be cancelled + 1.
- The limit amount to be reversed/amended is calculated as a prorated value of the originally consumed amount.

Example of Reverse Limits API

The limit amount to be reversed/amended is calculated as a prorated value of the originally consumed amount as in the following examples:

a. If an order line item has a unit price of $100 and the original priced/ordered quantity is 10 then the gross revenue is $1000. If the order line is eligible for a lumpsum discount of $20, then the actual revenue is $1000 - $20 = $980 which is a selling price of $98 ($980/10) per unit of the item effectively.

If the priced quantity is amended to 5 from 10, then since selling price must be fixed at $98 (since there's no repricing), the new total should be 5 x $98 = $490 which is effectively a lumpsum discount of $10 for an order line of qty 5 with unit price = $10 (for example, 5 x $10 -$10).

b. With the pro-rated approach, the new benefit consumption against the limit would be calculated as follows:

(amended_qty/original_ordered_qty) * original consumed amount

(5/10) * $20 (lumpsum benefit) = $10 (new lumpsum) which is the same as the benefit(discount) calculated in a) above.

So pro-rating the original consumption correctly evaluates the new consumption against a limit when the quantity is amended.

Example 2

a. If an order line item has a unit price of $100 and the original priced/ordered quantity is 10 then the gross revenue is $1000. If the order line is eligible for a 30% discount (for example, 30/100 x $1000= $300), then the actual revenue is $1000- $300 = $700 which is a selling price of $70 ($700/10) per unit of the item effectively.

If the priced quantity is amended to 6 from 10, then the selling price must be fixed at $70 (since there is no repricing), and the new total should be 6 x $70 = $420. This is effectively a discount of $180 (6x $100 - $420) which is an 18% percent discount consumption ($180/$1000)

b. With the pro-rated approach, the new benefit consumption against the limit would be:

(amended_qty/original_ordered_qty) * original consumed amount

(6/10) * 30 (discount%) = 18 (new discount%) which is the same as the benefit (discount %) calculated in a) above.

So pro-rating the original consumption correctly evaluates the new consumption against a limit when the quantity is amended.

Round Price Application Program Interface

This section explains how to use the round_price API and how it functions in Oracle Advanced Pricing.

Round Price API Features

The round_price API is used to round the price using the rounding factor. The package QP_UTIL_PUB contains the procedure round_price.

Functional Overview

This API is called by pricing engine as well as directly from OM.

When it is called from pricing engine, the pricing engine passes the rounding factor and the operand (i.e. the price of an item) and so this API just uses the round() function and return the rounded operand.

But when this API is called directly from OM (while re-pricing an item), it passes the price_list_id and the operand. In this case, this API finds the rounding factor associated with price list, round the passed operand and then return the rounded operand.

The parameter p_operand_type can take 3 different values – 'A', 'S' or 'R', with the default value 'S'. When 'R' is passed for p_operand_type then rounding_factor is returned in the out parameter p_rounded_operand, else rounded value (after applying rounding factor) of p_operand is returned.

The rounded operand / rounding factor is returned only if one of the following conditions is met :

a. p_operand_type = 'A' and profile "QP: Selling Price Rounding Options" = 'ROUND_ADJ'

b. p_operand_type = 'S' and profile "QP: Selling Price Rounding Options" = 'ROUND_ADJ' or 'NO_ROUND_ADJ'

c. p_operand_type = 'R'

d. profile OE_UNIT_PRICE_ROUNDING = 'Y'

When profile "QP: Multi Currency Installed" is 'Y' then rounding factor is retrieved by joining the tables qp_list_headers_b and qp_currency_details for the passed values of price list id, currency code and effective date else rounding factor is retrieved from table qp_list_headers_b for the price list id (without taking into consideration currency and effective date).

Setting Up and Parameter Descriptions

The following chart describes all parameters used by the round_price API. All of the inbound and outbound parameters are listed.

Table 3–207 round_price Parameters

Parameter	Usage	Type	Req	Drv
p_operand	IN	Number	Yes, if the p_ operand_type is not 'R'	No
p_rounding_factor	IN	Number	No	No
p_use_multi_currency	IN	Varchar2	No	No
p_price_list_id	IN	Number	No	No
p_currency_code	IN	Varchar2	No	No
p_pricing_effective_date	IN	Date	No	No
x_rounded_operand	OUT	Number	No	No
x_status_code	OUT	Varchar2	No	No
p_operand_type	IN	Varchar2	No	No

Validation of Round Price API

Standard Validation

The caller is responsible for passing the right parameters to Round_Price.

For specific information on the data implied by these columns, See *Oracle Pricing Technical Reference Manual* for details.

Other Validation

None.

Error Handling

If any exception occurs in the Round_Price API, it returns appropriate status code as below.

Table 3–208 Status Code

Condition	x_status_code
Success	FND_API.G_RET_STS_SUCCES
Expected Error	FND_API.G_RET_STS_ERROR
Unexpected Error	FND_API.G_RET_STS_UNEXP_ERROR

NOTE: The Package Specification and Body files are QPXRTCNS.pls and QPXRTCNB.pls and are available under the source control directory $QP_TOP/patch/115/sql.

Validate_Price_list_Curr_code Application Program Interface

This section explains how to use the Validate_Price_list_Curr_code API and how it functions in Oracle Advanced Pricing.

Validate_Price_list_Curr_code API Features

The Validate_Price_list_Curr_code API is used to validate a given price list with a currency code. The package QP_UTIL_PUB contains the procedure Validate_Price_list_Curr_code.

Functional Overview

While processing an order using a particular price list and currency code, it is imperative to verify whether the combination of price list and currency code is correct for the pricing effective date. If pricing effective date is not passed by calling application, the current date is defaulted. If profile QP: Multi Currency Installed is 'Y' then validation is done by joining the tables qp_list_headers_b and qp_currency_details else only table qp_list_headers_b is used.

Setting Up and Parameter Descriptions

The following chart describes all parameters used by the Validate_Price_list_Curr_code API. All of the inbound and outbound parameters are listed.

Table 3–209 Validate_Price_list_Curr_code Parameters

Parameter	Usage	Type	Req	Drv
l_price_list_id	IN	Number	Yes	No
l_currency_code	IN	Varchar2	Yes	No
l_pricing_effective_date	IN	Date	No	No
l_validate_result	OUT	Varchar2	No	No

Validation of Validate_Price_list_Curr_code API

Standard Validation

The caller is responsible for passing the right parameters to Validate_Price_list_Curr_code.

For more information on the data implied by these columns, See *Oracle Pricing Technical Reference Manual* for details.

Other Validation

None.

Error Handling

If any exception occurs in the Validate_Price_list_Curr_code API, it returns the value 'N' in outbound parameter l_validate_result.

NOTE: The Package Specification and Body files are QPXRTCNS.pls and QPXRTCNB.pls and are available under the source control directory $QP_TOP/patch/115/sql.

4

Release Management Open Interface

Topics covered in the Oracle Release Management Open Interface are:

- Understanding the Interface Tables on page 4-2
- RLM_INTERFACE_HEADERS_ALL on page 4-2
- RLM_INTERFACE_LINES_ALL on page 4-22

Understanding the Interface Tables

Oracle Release Management uses two Oracle tables in which the Demand Processor receives data that you import from other systems.

- RLM_INTERFACE_HEADERS_ALL
- RLM_INTERFACE_LINES_ALL

When the Demand Processor receives data, it validates and converts your import data into customer demand schedules within Oracle Release Management and order lines within Oracle Order Management.

RLM_INTERFACE_HEADERS_ALL

This table stores the header level details of the Release Management schedules. It has details pertaining to the specific schedule and customer level information. The Release Management Demand Processor uses this table to maintain a current picture of demand schedule headers.

Table 4–1 RLM_INTERFACE_HEADERS_ALL

Column Name	Type	Required	Derived	Optional
HEADER_ID	NUMBER	X	-	-
CUST_ADDRESS_1_EXT	VARCHAR2(35)	-	-	X
CUST_ADDRESS_2_EXT	VARCHAR2(35)	-	-	X
CUST_ADDRESS_3_EXT	VARCHAR2(35)	-	-	X
CUST_ADDRESS_4_EXT	VARCHAR2(35)	-	-	X
CUST_ADDRESS_5_EXT	VARCHAR2(35)	-	-	X
CUST_ADDRESS_6_EXT	VARCHAR2(35)	-	-	X
CUST_ADDRESS_7_EXT	VARCHAR2(35)	-	-	X
CUST_ADDRESS_8_EXT	VARCHAR2(35)	-	-	X
CUST_ADDRESS_9_EXT	VARCHAR2(35)	-	-	X
CUST_CITY_EXT	VARCHAR2(30)	-	-	X
CUST_COUNTRY_EXT	VARCHAR2(3)	-	-	X
CUST_COUNTY_EXT	VARCHAR2(25)	-	-	X
CUSTOMER_EXT	VARCHAR2(30)	-	-	X

Table 4–1 RLM_INTERFACE_HEADERS_ALL

Column Name	Type	Required	Derived	Optional
CUST_NAME_EXT	VARCHAR2(20)	-	-	X
ONE_TIME_CUST_FLAG_EXT	VARCHAR2(35)	-	-	X
CURRENCY_EXT	VARCHAR2(35)	-	-	X
TAX_EXEMPT_FLAG_EXT	VARCHAR2(35)	-	-	X
TAX_ID_EXT	VARCHAR2(35)	-	-	X
CUST_POSTAL_CD_EXT	VARCHAR2(15)	-	-	X
CUST_PROVINCE_EXT	VARCHAR2(10)	-	-	X
CUST_STATE_EXT	VARCHAR2(10)	-	-	X
CUSTOMER_ID	NUMBER	-	-	X
ECE_PRIMARY_ADDRESS_ID	NUMBER	-	-	X
ECE_TP_LOCATION_CODE_EXT	VARCHAR2(35)	-	-	X
ECE_TP_TRANSLATOR_CODE	VARCHAR2(35)	-	-	X
EDI_CONTROL_NUM_1	VARCHAR2(15)	-	-	X
EDI_CONTROL_NUM_2	VARCHAR2(15)	-	-	X
EDI_CONTROL_NUM_3	VARCHAR2(15)	-	-	X
EDI_TEST_INDICATOR	VARCHAR2(1)	-	-	X
HEADER_CONTACT_CODE_1	VARCHAR2(3)	-	-	X
HEADER_CONTACT_CODE_2	VARCHAR2(3)	-	-	X
HEADER_CONTACT_VALUE_1	VARCHAR2(80)	-	-	X
HEADER_CONTACT_VALUE_2	VARCHAR2(80)	-	-	X
HEADER_CONTACT_EMAIL_1_EXT	VARCHAR2(50)	-	-	X
HEADER_CONTACT_EMAIL_2_EXT	VARCHAR2(50)	-	-	X
HEADER_CONTACT_FAX_1_EXT	VARCHAR2(35)	-	-	X
HEADER_CONTACT_FAX_2_EXT	VARCHAR2(35)	-	-	X
HEADER_CONTACT_TEL_1_EXT	VARCHAR2(50)	-	-	X
HEADER_CONTACT_TEL_2_EXT	VARCHAR2(80)	-	-	X

Table 4–1 RLM_INTERFACE_HEADERS_ALL

Column Name	Type	Required	Derived	Optional
HEADER_NOTE_TEXT	VARCHAR2(4000)	-	-	X
HEADER_REF_CODE_1	VARCHAR2(3)	-	-	X
HEADER_REF_CODE_2	VARCHAR2(3)	-	-	X
HEADER_REF_CODE_3	VARCHAR2(3)	-	-	X
HEADER_REF_VALUE_1	VARCHAR2(35)	-	-	X
HEADER_REF_VALUE_2	VARCHAR2(35)	-	-	X
HEADER_REF_VALUE_3	VARCHAR2(35)	-	-	X
ORG_ID	NUMBER	-	-	X
PROCESS_STATUS	NUMBER	-	-	X
SCHEDULE_HEADER_ID	NUMBER	-	-	X
SCHEDULE_TYPE	VARCHAR2(30)	-	X	-
SCHEDULE_TYPE_EXT	VARCHAR2(30)	-	-	X
SCHED_GENERATION_DATE	DATE	-	-	X
SCHED_HORIZON_END_DATE	DATE	-	-	X
SCHED_HORIZON_START_DATE	DATE	-	-	X
SCHEDULE_PURPOSE	VARCHAR2(30)	-	X	-
SCHEDULE_PURPOSE_EXT	VARCHAR2(30)	-	-	X
SCHEDULE_REFERENCE_NUM	VARCHAR2(35)	-	-	X
SCHEDULE_SOURCE	VARCHAR2(30)	-	-	X
LAST_UPDATE_DATE	DATE	-	X	-
LAST_UPDATED_BY	NUMBER	-	X	-
CREATION_DATE	DATE	-	X	-
CREATED_BY	NUMBER	-	X	-
ATTRIBUTE_CATEGORY	VARCHAR2(30)	-	-	X
ATTRIBUTE1	VARCHAR2(150)	-	-	X
ATTRIBUTE2	VARCHAR2(150)	-	-	X
ATTRIBUTE3	VARCHAR2(150)	-	-	X

Table 4–1 RLM_INTERFACE_HEADERS_ALL

Column Name	Type	Required	Derived	Optional
ATTRIBUTE4	VARCHAR2(150)	-	-	X
ATTRIBUTE5	VARCHAR2(150)	-	-	X
ATTRIBUTE6	VARCHAR2(150)	-	-	X
ATTRIBUTE7	VARCHAR2(150)	-	-	X
ATTRIBUTE8	VARCHAR2(150)	-	-	X
ATTRIBUTE9	VARCHAR2(150)	-	-	X
ATTRIBUTE10	VARCHAR2(150)	-	-	X
ATTRIBUTE11	VARCHAR2(150)	-	-	X
ATTRIBUTE12	VARCHAR2(150)	-	-	X
ATTRIBUTE13	VARCHAR2(150)	-	-	X
ATTRIBUTE14	VARCHAR2(150)	-	-	X
ATTRIBUTE15	VARCHAR2(150)	-	-	X
LAST_UPDATE_LOGIN	NUMBER	-	X	-
REQUEST_ID	NUMBER	-	X	-
PROGRAM_APPLICATION_ID	NUMBER	-	X	-
PROGRAM_ID	NUMBER	-	X	-
PROGRAM_UPDATE_DATE	DATE	-	X	-
TP_ATTRIBUTE1	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE2	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE3	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE4	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE5	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE6	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE7	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE8	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE9	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE10	VARCHAR2(150)	-	-	X

Table 4–1 RLM_INTERFACE_HEADERS_ALL

Column Name	Type	Required	Derived	Optional
TP_ATTRIBUTE11	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE12	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE13	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE14	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE15	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE_CATEGORY	VARCHAR2(30)	-	-	X
CUST_FAX_EXT	VARCHAR2(35)	-	-	X
CUST_REGION_EXT	VARCHAR2(35)	-	-	X
CUST_TAX_JURISDICTION_EXT	VARCHAR2(35)	-	-	X
CUST_TEL_EXT	VARCHAR2(35)	-	-	X
CUST_URL_EXT	VARCHAR2(100)	-	-	X
ORIGINAL_DOCUMENT_DATE	DATE	-	-	X
RESP_DOCUMENT_DATE	DATE	-	-	X
DOCUMENT_DESCRIPTION	VARCHAR2(50)	-	-	X
DOCUMENT_REV_NUM	VARCHAR2(35)	-	-	X
RESP_SCHEDULE_ID	VARCHAR2(35)	-	-	X
RESP_DOCUMENT_REV_NUM	VARCHAR2(35)	-	-	X
BUCKET_END_DATE	DATE	-	-	X
BUCKET_START_DATE	DATE	-	-	X
FLEX_BUCKET_CODE	VARCHAR2(30)	-	-	X
SUPPLIER_NAME_EXT	VARCHAR2(60)	-	-	X
ONE_TIME_SUPPLIER_FLAG_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_ID	NUMBER	-	-	X
SUPPLIER_CURRENCY_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_DESCRIPTION_EXT	VARCHAR2(35)	-	-	X
CUST_DESCRIPTION_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_TAX_EXEMPT_FLAG_ EXT	VARCHAR2(35)	-	-	X

Table 4–1 RLM_INTERFACE_HEADERS_ALL

Column Name	Type	Required	Derived	Optional
SUPPLIER_TAX_ID_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_ADDRESS_1_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_ADDRESS_2_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_ADDRESS_3_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_ADDRESS_4_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_ADDRESS_5_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_ADDRESS_6_EXT	VARCHAR2(240)	-	-	X
SUPPLIER_ADDRESS_7_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_ADDRESS_8_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_ADDRESS_9_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_CITY_EXT	VARCHAR2(30)	-	-	X
SUPPLIER_COUNTY_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_FAX_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_POSTAL_CD_EXT	VARCHAR2(15)	-	-	X
SUPPLIER_REGION_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_STATE_EXT	VARCHAR2(10)	-	-	X
SUPPLIER_PROVINCE_EXT	VARCHAR2(10)	-	-	X
SUPPLIER_TAX_JURISDICTION_ EXT	VARCHAR2(35)	-	-	X
SUPPLIER_TEL_EXT	VARCHAR2(35)	-	-	X
SUPPLIER_URL_EXT	VARCHAR2(100)	-	-	X
SUP_HEADER_CONTACT_CODE_1	VARCHAR2(3)	-	-	X
SUP_HEADER_CONTACT_CODE_2	VARCHAR2(3)	-	-	X
SUP_HEADER_CONTACT_VALUE_1	VARCHAR2(80)	-	-	X
SUP_HEADER_CONTACT_VALUE_2	VARCHAR2(80)	-	-	X
SUP_HEADER_CONTACT_EMAIL_ 1_EXT	VARCHAR2(50	-	-	X

Table 4–1 RLM_INTERFACE_HEADERS_ALL

Column Name	Type	Required	Derived	Optional
SUP_HEADER_CONTACT_EMAIL_2_EXT	VARCHAR2(50	-	-	X
SUP_HEADER_CONTACT_FAX_1_EXT	VARCHAR2(35)	-	-	X
SUP_HEADER_CONTACT_FAX_2_EXT	VARCHAR2(35)	-	-	X
SUP_HEADER_CONTACT_TEL_1_EXT	VARCHAR2(50)	-	-	X
SUP_HEADER_CONTACT_TEL_2_EXT	VARCHAR2(50)	-	-	X
SUPPLIER_COUNTRY_EXT	VARCHAR2(3)	-	-	X

Column Descriptions

HEADER_ID — Number

Sequence generated unique identifier.

CUST_ADDRESS_1_EXT — VARCHAR2(35)

Customer address line 1, as sent by the customer on the N3 segment.

CUST_ADDRESS_2_EXT — VARCHAR2(35)

Customer address line 2, as sent by the customer on the N3 segment.

CUST_ADDRESS_3_EXT — VARCHAR2(35)

Customer address line 3, as sent by the customer on the N3 segment.

CUST_ADDRESS_4_EXT — VARCHAR2(35)

Customer address line 4, as sent by the customer on the N3 segment.

CUST_ADDRESS_5_EXT — VARCHAR2(35)

Customer address line 5, as sent by the customer on the N3 segment.

CUST_ADDRESS_6_EXT **VARCHAR2(35)**

Customer address line 6, as sent by the customer on the N3 segment.

CUST_ADDRESS_7_EXT **VARCHAR2(35)**

Customer address line 7, as sent by the customer on the N3 segment.

CUST_ADDRESS_8_EXT **VARCHAR2(35)**

Customer address line 8, As sent by the customer on the N3 segment.

CUST_ADDRESS_9_EXT **VARCHAR2(35)**

Customer address line 9, as sent by the customer on the N3 segment.

CUST_CITY_EXT **VARCHAR2(30)**

Customer address city, as sent by the customer on the N4 segment.

CUST_COUNTRY_EXT **VARCHAR2(3)**

Customer country, as sent by the customer on the N4 segment.

CUST_COUNTY_EXT **VARCHAR2(25)**

Customer county, as sent by the customer on the N4 segment.

CUSTOMER_EXT **VARCHAR2(30)**

Trading Partner designator cross reference.

CUST_NAME_EXT **VARCHAR2(60)**

Customer name, as sent by the customer in the N1 or N2 segment.

ONE_TIME_CUST_FLAG_EXT **VARCHAR2(35)**

For future use.

CURRENCY_EXT **VARCHAR2(35)**

For future use.

TAX_EXEMPT_FLAG_EXT **VARCHAR2(35)**

For future use.

TAX_ID_EXT **VARCHAR2(35)**

For future use.

CUST_POSTAL_CD_EXT **VARCHAR2(15)**

Customer address postal code, as sent by the customer on the N4 segment.

CUST_PROVINCE_EXT **VARCHAR2(10)**

Customer province, as sent by the customer on the N4 segment.

CUST_STATE_EXT **VARCHAR2(10)**

Customer state, as sent by the customer on the N4 segment.

CUSTOMER_ID **NUMBER**

Customer identifier. FK to RA_CUSTOMERS.

ECE_PRIMARY_ADDRESS_ID **NUMBER**

Customer primary address ID; populated by e-Commerce Gateway code conversion of external trading partner location code. FK to RA_ADDRESSES.

ECE_TP_LOCATION_CODE_EXT **VARCHAR2(35)**

For EDI transactions only, external trading partner location code assigned to the location in the e-Commerce Gateway common control record.

ECE_TP_TRANSLATOR_CODE **VARCHAR2(35)**

For EDI transactions only, e-Commerce Gateway trading partner code assigned to the transaction in the e-Commerce Gateway common control record.

EDI_CONTROL_NUM_1 **VARCHAR2(15)**

EDI control number 1 (ISA) assigned by the customer's EDI translator for audit.

EDI_CONTROL_NUM_2 **VARCHAR2(15)**

EDI control number 2 (GS) assigned by the customer's EDI translator for audit.

EDI_CONTROL_NUM_3 **VARCHAR2(15)**

EDI control number 3 (ST) assigned by the customer's EDI translator for audit.

EDI_TEST_INDICATOR VARCHAR2(1)

EDI Test/Production transaction indicator (T or P), assigned by the customer's EDI translator. E-Commerce Gateway rules determine the handling of test transactions within the Demand Processor.

HEADER_CONTACT_CODE_1 VARCHAR2(3)

Contact code 1 included in customer's EDI transaction (not validated).

HEADER_CONTACT_CODE_2 VARCHAR2(3)

Contact code 2 included in customer's EDI transaction (not validated).

HEADER_CONTACT_VALUE_1 VARCHAR2(80)

Values associated with contact code 1: concatenation of name, communication code, and communication number.

HEADER_CONTACT_VALUE_2 VARCHAR2(80)

Values associated with contact code 2: concatenation of name, communication code, and communication number.

HEADER_CONTACT_EMAIL_1_EXT VARCHAR2(50)

For future use.

HEADER_CONTACT_EMAIL_2_EXT VARCHAR2(50)

For future use.

HEADER_CONTACT_FAX_1_EXT VARCHAR2(35)

For future use.

HEADER_CONTACT_FAX_2_EXT VARCHAR2(35)

For future use.

HEADER_CONTACT_TEL_1_EXT VARCHAR2(50)

For future use.

HEADER_CONTACT_TEL_2_EXT VARCHAR2(50)

For future use.

HEADER_NOTE_TEXT VARCHAR2(240)

Free form note text included in the schedule at the header level.

HEADER_REF_CODE_1 VARCHAR2(3)

Reference code 1 included in customer's EDI transaction.

HEADER_REF_CODE_2 VARCHAR2(3)

Reference code 2 included in customer's EDI transaction.

HEADER_REF_CODE_3 VARCHAR2(3)

Reference code 3 included in customer's EDI transaction.

HEADER_REF_VALUE_1 VARCHAR2(35)

Value associated with reference code 1.

HEADER_REF_VALUE_2 VARCHAR2(35)

Value associated with reference code 2.

HEADER_REF_VALUE_3 VARCHAR2(35)

Value associated with reference code 3.

ORG_ID NUMBER

Operating unit unique ID. FK to HR_ORGANIZATION_UNITS.

PROCESS_STATUS NUMBER

Indicates the current processing status of a record for headers with lines in error:

- 1=do not process
- 2=available to be processed
- 3=in process
- 4=error
- 5=processed successfully

- 6=’line is frozen firm’
- 7='processed with error(s)'

SCHEDULE_HEADER_ID NUMBER

Schedule header unique identifier. FK to RLM_SCHEDULE_HEADERS.

SCHEDULE_TYPE VARCHAR2(30)

Schedule Type: planning, shipping or sequenced. Validated against FND_LOOKUPS.LOOKUP_TYPE = RLM_SCHEDULE_TYPE.

SCHEDULE_TYPE_EXT VARCHAR2(30)

External value from which RLM_SCHEDULE_TYPE was derived in EDI Gateway code conversion.

SCHED_GENERATION_DATE DATE

Date customer generated either the schedule or the planning information on the schedule.

SCHED_HORIZON_END_DATE DATE

Schedule horizon end date, to be derived based on demand contained within the schedule if not specified.

SCHED_HORIZON_START_DATE DATE

Schedule horizon start date, to be derived based on demand contained within the schedule if not specified.

SCHEDULE_PURPOSE VARCHAR2(30)

Schedule purpose code, i.e. original, replace, cancellation, etc. Validated against FND_LOOKUPS.LOOKUP_TYPE =RLM_SCHEDULE_PURPOSE

SCHEDULE_PURPOSE_EXT VARCHAR2(30)

External value from which SCHEDULE_PURPOSE was derived in e-Commerce Gateway code conversion.

SCHEDULE_REFERENCE_NUM VARCHAR2(35)

Customer assigned schedule reference or release number.

SCHEDULE_SOURCE **VARCHAR2(30)**
EDI or manual transaction source for this schedule, i.e. 830, 862, 866, DELFOR, MANUAL, etc.

LAST_UPDATE_DATE **DATE**
Standard Who column.

LAST_UPDATED_BY **NUMBER**
Standard Who column.

CREATION_DATE **DATE**
Standard Who column.

CREATED_BY **NUMBER**
Standard Who column.

ATTRIBUTE_CATEGORY **VARCHAR2(30)**
Descriptive flexfield context column.

ATTRIBUTE1 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE2 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE3 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE4 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE5 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE6 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE7 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE8 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE9 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE10 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE11 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE12 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE13 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE14 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE15 **VARCHAR2(150)**
Descriptive flexfield segment column.

LAST_UPDATE_LOGIN **NUMBER**
Standard Who column.

REQUEST_ID **NUMBER**
Standard Who column.

PROGRAM_APPLICATION_ID **NUMBER**
Standard Who column.

PROGRAM_ID **NUMBER**
Standard Who column.

PROGRAM_UPDATE_DATE **DATE**
Standard Who column.

TP_ATTRIBUTE1 **VARCHAR2(150)**
Trading Partner flexfield column.

TP_ATTRIBUTE2 **VARCHAR2(150)**
Trading Partner flexfield column.

TP_ATTRIBUTE3 **VARCHAR2(150)**
Trading Partner flexfield column.

TP_ATTRIBUTE4 **VARCHAR2(150)**
Trading Partner flexfield column.

TP_ATTRIBUTE5 **VARCHAR2(150)**
Trading Partner flexfield column.

TP_ATTRIBUTE6 **VARCHAR2(150)**
Trading Partner flexfield column.

TP_ATTRIBUTE7 **VARCHAR2(150)**
Trading Partner flexfield column.

TP_ATTRIBUTE8 **VARCHAR2(150)**
Trading Partner flexfield column.

TP_ATTRIBUTE9 **VARCHAR2(150)**
Trading Partner flexfield column.

TP_ATTRIBUTE10 **VARCHAR2(150)**
Trading Partner flexfield column.

TP_ATTRIBUTE11 **VARCHAR2(150)**
Trading Partner flexfield column.

TP_ATTRIBUTE12 **VARCHAR2(150)**
Trading Partner flexfield column.

TP_ATTRIBUTE13 **VARCHAR2(150)**
Trading Partner flexfield column.

TP_ATTRIBUTE14 **VARCHAR2(150)**
Trading Partner flexfield column.

TP_ATTRIBUTE15 **VARCHAR2(150)**
Trading Partner flexfield column.

TP_ATTRIBUTE_CATEGORY **VARCHAR2(30)**
Trading Partner flexfield context column.

CUST_FAX_EXT **VARCHAR2(35)**
For future use.

CUST_REGION_EXT **VARCHAR2(35)**
For future use.

CUST_TAX_JURISDICTION_EXT **VARCHAR2(35)**
For future use.

CUST_TEL_EXT **VARCHAR2(35)**
For future use.

CUST_URL_EXT **VARCHAR2(100)**
For future use.

ORIGINAL_DOCUMENT_DATE **DATE**
For future use.

RESP_DOCUMENT_DATE **DATE**
For future use.

DOCUMENT_DESCRIPTION **VARCHAR2(50)**
For future use.

DOCUMENT_REV_NUM **VARCHAR2(35)**
For future use.

RESP_SCHEDULE_ID **VARCHAR2(35)**
For future use.

RESP_DOCUMENT_REV_NUM **VARCHAR2(35)**
For future use.

BUCKET_END_DATE **DATE**
For future use.

BUCKET_START_DATE **DATE**
For future use.

FLEX_BUCKET_CODE **VARCHAR2(30)**
For future use.

SUPPLIER_NAME_EXT **VARCHAR2(60)**
For future use.

ONE_TIME_SUPPLIER_FLAG_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_ID **NUMBER**
For future use.

SUPPLIER_CURRENCY_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_DESCRIPTION_EXT **VARCHAR2(35)**
For future use.

CUST_DESCRIPTION_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_TAX_EXEMPT_FLAG_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_TAX_ID_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_ADDRESS_1_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_ADDRESS_2_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_ADDRESS_3_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_ADDRESS_4_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_ADDRESS_5_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_ADDRESS_6_EXT **VARCHAR2(240)**
For future use.

SUPPLIER_ADDRESS_7_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_ADDRESS_8_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_ADDRESS_9_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_CITY_EXT **VARCHAR2(30)**
For future use.

SUPPLIER_COUNTY_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_FAX_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_POSTAL_CD_EXT **VARCHAR2(15)**
For future use.

SUPPLIER_REGION_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_STATE_EXT **VARCHAR2(10)**
For future use.

SUPPLIER_PROVINCE_EXT **VARCHAR2(10)**
For future use.

SUPPLIER_TAX_JURISDICTION_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_TEL_EXT **VARCHAR2(35)**
For future use.

SUPPLIER_URL_EXT **VARCHAR2(100)**
For future use.

SUP_HEADER_CONTACT_CODE_1 **VARCHAR2(3)**
For future use.

SUP_HEADER_CONTACT_CODE_2 **VARCHAR2(3)**
For future use.

SUP_HEADER_CONTACT_VALUE_1 **VARCHAR2(80)**
For future use.

SUP_HEADER_CONTACT_VALUE_2 **VARCHAR2(80)**
For future use.

SUP_HEADER_CONTACT_EMAIL_1_EXT **VARCHAR2(50)**
For future use.

SUP_HEADER_CONTACT_EMAIL_2_EXT **VARCHAR2(50)**
For future use.

SUP_HEADER_CONTACT_FAX_1_EXT **VARCHAR2(35)**
For future use.

SUP_HEADER_CONTACT_FAX_2_EXT **VARCHAR2(35)**
For future use.

SUP_HEADER_CONTACT_TEL_1_EXT **VARCHAR2(50)**
For future use.

SUP_HEADER_CONTACT_TEL_2_EXT **VARCHAR2(50)**
For future use.

SUPPLIER_COUNTRY_EXT **VARCHAR2(3)**
For future use.

RLM_INTERFACE_LINES_ALL

This table stores the item and item detail level information associated with customer planning, shipping, or production sequenced schedules. For production sequence schedules, the item represents the feature, not the configuration.

This table stores all details for scheduled items: dated demand, authorizations, and customer shipment/receipt information. It has a child relationship to RLM_INTERFACE_HEADERS.

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
LINE_ID	NUMBER	X	-	-
HEADER_ID	NUMBER	X	-	-
AGREEMENT_ID	NUMBER	-	-	X
ATO_DATA_TYPE	VARCHAR2(30)	-	-	X
BILL_TO_ADDRESS_1_EXT	VARCHAR2(35)	-	-	X
BILL_TO_ADDRESS_2_EXT	VARCHAR2(35)	-	-	X
BILL_TO_ADDRESS_3_EXT	VARCHAR2(35)	-	-	X
BILL_TO_ADDRESS_4_EXT	VARCHAR2(35)	-	-	X
BILL_TO_ADDRESS_ID	NUMBER	-	-	X
INVOICE_TO_ORG_ID	NUMBER	-	-	X
BILL_TO_CITY_EXT	VARCHAR2(30)	-	-	X
BILL_TO_COUNTRY_EXT	VARCHAR2(3)	-	-	X
BILL_TO_COUNTY_EXT	VARCHAR2(25)	-	-	X
BILL_TO_NAME_EXT	VARCHAR2(60)	-	-	X
BILL_TO_POSTAL_CD_EXT	VARCHAR2(15)	-	-	X
BILL_TO_PROVINCE_EXT	VARCHAR2(10)	-	-	X
BILL_TO_SITE_USE_ID	NUMBER	-	-	X
BILL_TO_STATE_EXT	VARCHAR2(10)	-	-	X
CARRIER_ID_CODE_EXT	VARCHAR2(35)	-	-	X
CARRIER_QUALIFIER_EXT	VARCHAR2(3)	-	-	X
COMMODITY_EXT	VARCHAR2(35)	-	-	X

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
COUNTRY_OF_ORIGIN_EXT	VARCHAR2(35)	-	-	X
CUST_ASSEMBLY_EXT	VARCHAR2(30)	-	-	X
CUST_ASSIGNED_ID_EXT	VARCHAR2(20)	-	-	X
CUST_BILL_TO_EXT	VARCHAR2(35)	-	-	X
CUST_CONTRACT_NUM_EXT	VARCHAR2(35)	-	-	X
CUSTOMER_DOCK_CODE	VARCHAR2(50)	-	-	X
CUST_INTRMD_SHIP_TO_EXT	VARCHAR2(35)	-	-	X
CUST_ITEM_PRICE_EXT	NUMBER	-	-	X
CUST_ITEM_PRICE_UOM_EXT	VARCHAR2(3)	-	-	X
CUSTOMER_ITEM_REVISION	VARCHAR2(3)	-	-	X
CUSTOMER_JOB	VARCHAR2(50)	-	-	X
CUST_MANUFACTURER_EXT	VARCHAR2(35)	-	-	X
CUST_MODEL_NUMBER_EXT	VARCHAR2(35)	-	-	X
CUST_MODEL_SERIAL_NUMBER	VARCHAR2(35)	-	-	X
CUST_ORDER_NUM_EXT	VARCHAR2(35)	-	-	X
CUST_PROCESS_NUM_EXT	VARCHAR2(35)	-	-	X
CUST_PRODUCTION_LINE	VARCHAR2(50)	-	-	X
CUST_PRODUCTION_SEQ_NUM	VARCHAR2(35)	-	-	X
CUST_SET_NUM_EXT	VARCHAR2(35)	-	-	X
CUST_SHIP_FROM_ORG_EXT	VARCHAR2(80)	-	-	X
CUST_SHIP_TO_EXT	VARCHAR2(35)	-	-	X
CUST_UOM_EXT	VARCHAR2(10)	-	-	X
CUSTOMER_ITEM_EXT	VARCHAR2(50)	-	-	X
CUSTOMER_ITEM_ID	NUMBER	-	-	X
REQUEST_DATE	DATE	-	-	X
SCHEDULE_DATE	DATE	-	-	X
DATE_TYPE_CODE	VARCHAR2(30)	-	X	-

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
DATE_TYPE_CODE_EXT	VARCHAR2(30)	-	-	X
DELIVERY_LEAD_TIME	NUMBER	-	-	X
END_DATE_TIME	DATE	-	-	X
EQUIPMENT_CODE_EXT	VARCHAR2(3)	-	-	X
EQUIPMENT_NUMBER_EXT	VARCHAR2(35)	-	-	X
HANDLING_CODE_EXT	VARCHAR2(3)	-	-	X
HAZARD_CODE_EXT	VARCHAR2(10)	-	-	X
HAZARD_CODE_QUAL_EXT	VARCHAR2(3)	-	-	X
HAZARD_DESCRIPTION_EXT	VARCHAR2(80)	-	-	X
IMPORT_LICENSE_DATE_EXT	DATE	-	-	X
IMPORT_LICENSE_EXT	VARCHAR2(35)	-	-	X
INDUSTRY_ATTRIBUTE1	VARCHAR2(150)	-	-	X
INDUSTRY_ATTRIBUTE10	VARCHAR2(150)	-	-	X
INDUSTRY_ATTRIBUTE11	VARCHAR2(150)	-	-	X
INDUSTRY_ATTRIBUTE12	VARCHAR2(150)	-	-	X
INDUSTRY_ATTRIBUTE13	VARCHAR2(150)	-	-	X
INDUSTRY_ATTRIBUTE14	VARCHAR2(150)	-	-	X
INDUSTRY_ATTRIBUTE15	VARCHAR2(150)	-	-	X
INDUSTRY_ATTRIBUTE2	VARCHAR2(150)	-	-	X
INDUSTRY_ATTRIBUTE3	VARCHAR2(150)	-	-	X
INDUSTRY_ATTRIBUTE4	VARCHAR2(150)	-	-	X
INDUSTRY_ATTRIBUTE5	VARCHAR2(150)	-	-	X
INDUSTRY_ATTRIBUTE6	VARCHAR2(150)	-	-	X
INDUSTRY_ATTRIBUTE7	VARCHAR2(150)	-	-	X
INDUSTRY_ATTRIBUTE8	VARCHAR2(150)	-	-	X
INDUSTRY_ATTRIBUTE9	VARCHAR2(150)	-	-	X
INDUSTRY_CONTEXT	VARCHAR2(30)	-	-	X

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
INTRMD_SHIP_TO_ID	NUMBER	-	-	X
SHIP_TO_ORG_ID	NUMBER	-	-	X
INTRMD_ST_ADDRESS_1_EXT	VARCHAR2(35)	-	-	X
INTRMD_ST_ADDRESS_2_EXT	VARCHAR2(35)	-	-	X
INTRMD_ST_ADDRESS_3_EXT	VARCHAR2(35)	-	-	X
INTRMD_ST_ADDRESS_4_EXT	VARCHAR2(35)	-	-	X
INTRMD_ST_CITY_EXT	VARCHAR2(30)	-	-	X
INTRMD_ST_COUNTRY_EXT	VARCHAR2(3)	-	-	X
INTRMD_ST_COUNTY_EXT	VARCHAR2(25)	-	-	X
INTRMD_ST_NAME_EXT	VARCHAR2(60)	-	-	X
INTRMD_ST_POSTAL_CD_EXT	VARCHAR2(15)	-	-	X
INTRMD_ST_PROVINCE_EXT	VARCHAR2(10)	-	-	X
INTRMD_ST_STATE_EXT	VARCHAR2(10)	-	-	X
INTRMD_ST_SITE_USE_ID	NUMBER	-	-	X
INVENTORY_ITEM_ID	NUMBER	-	-	X
INVENTORY_ITEM_SEGMENT1	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT10	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT11	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT12	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT13	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT14	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT15	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT16	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT17	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT18	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT19	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT2	VARCHAR2(40)	-	-	X

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
INVENTORY_ITEM_SEGMENT20	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT3	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT4	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT5	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT6	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT7	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT8	VARCHAR2(40)	-	-	X
INVENTORY_ITEM_SEGMENT9	VARCHAR2(40)	-	-	X
ITEM_CONTACT_CODE_1	VARCHAR2(3)	-	-	X
ITEM_CONTACT_CODE_2	VARCHAR2(3)	-	-	X
ITEM_CONTACT_VALUE_1	VARCHAR2(80)	-	-	X
ITEM_CONTACT_VALUE_2	VARCHAR2(80)	-	-	X
ITEM_DESCRIPTION_EXT	VARCHAR2(80)	-	-	X
ITEM_DETAIL_QUANTITY	NUMBER	-	-	X
ITEM_DETAIL_REF_CODE_1	VARCHAR2(3)	-	-	X
ITEM_DETAIL_REF_CODE_2	VARCHAR2(3)	-	-	X
ITEM_DETAIL_REF_CODE_3	VARCHAR2(3)	-	-	X
ITEM_DETAIL_REF_VALUE_1	VARCHAR2(35)	-	-	X
ITEM_DETAIL_REF_VALUE_2	VARCHAR2(35)	-	-	X
ITEM_DETAIL_REF_VALUE_3	VARCHAR2(35)	-	-	X
ITEM_DETAIL_SUBTYPE	VARCHAR2(30)	-	X	-
ITEM_DETAIL_SUBTYPE_EXT	VARCHAR2(30)	-	-	X
ITEM_DETAIL_TYPE	VARCHAR2(30)	-	X	-
ITEM_DETAIL_TYPE_EXT	VARCHAR2(30)	-	-	X
ITEM_ENG_CNG_LVL_EXT	VARCHAR2(35)	-	-	X
ITEM_MEASUREMENTS_EXT	VARCHAR2(240)	-	-	X
ITEM_NOTE_TEXT	VARCHAR2(240)	-	-	X

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
ITEM_REF_CODE_1	VARCHAR2(3)	-	-	X
ITEM_REF_CODE_2	VARCHAR2(3)	-	-	X
ITEM_REF_CODE_3	VARCHAR2(3)	-	-	X
ITEM_REF_VALUE_1	VARCHAR2(35)	-	-	X
ITEM_REF_VALUE_2	VARCHAR2(35)	-	-	X
ITEM_REF_VALUE_3	VARCHAR2(35)	-	-	X
ITEM_RELEASE_STATUS_EXT	VARCHAR2(3)	-	-	X
LADING_QUANTITY_EXT	NUMBER	-	-	X
LETTER_CREDIT_EXPDT_EXT	DATE	-	-	X
LETTER_CREDIT_EXT	VARCHAR2(35)	-	-	X
LINE_REFERENCE	VARCHAR2(50)	-	-	X
LINK_TO_LINE_REF	VARCHAR2(50)	-	-	X
ORDER_HEADER_ID	NUMBER	-	-	X
ORG_ID	NUMBER	-	-	X
OTHER_NAME_CODE_1	VARCHAR2(3)	-	-	X
OTHER_NAME_CODE_2	VARCHAR2(3)	-	-	X
OTHER_NAME_VALUE_1	VARCHAR2(80)	-	-	X
OTHER_NAME_VALUE_2	VARCHAR2(80)	-	-	X
PACK_SIZE_EXT	NUMBER	-	-	X
PACK_UNITS_PER_PACK_EXT	NUMBER	-	-	X
PACK_UOM_CODE_EXT	VARCHAR2(3)	-	-	X
PACKAGING_CODE_EXT	VARCHAR2(10)	-	-	X
PARENT_LINK_LINE_REF	VARCHAR2(50)	-	-	X
PRICE_LIST_ID	NUMBER	-	-	X
PRIMARY_QUANTITY	NUMBER	-	-	X
PRIMARY_UOM_CODE	VARCHAR2(3)	-	-	X
PRIME_CONTRCTR_PART_EXT	VARCHAR2(35)	-	-	X

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
PROCESS_STATUS	NUMBER	-	-	X
CUST_PO_RELEASE_NUM	VARCHAR2(35)	-	-	X
CUST_PO_DATE	DATE	-	-	X
CUST_PO_LINE_NUM	VARCHAR2(35)	-	-	X
CUST_PO_NUMBER	VARCHAR2(50)	-	-	X
QTY_TYPE_CODE	VARCHAR2(30)	-	X	-
QTY_TYPE_CODE_EXT	VARCHAR2(30)	-	-	X
RETURN_CONTAINER_EXT	VARCHAR2(35)	-	-	X
SCHEDULE_LINE_ID	NUMBER	-	-	X
ROUTING_DESC_EXT	VARCHAR2(35)	-	-	X
ROUTING_SEQ_CODE_EXT	VARCHAR2(3)	-	-	X
SCHEDULE_ITEM_NUM	NUMBER	-	-	X
SHIP_DEL_PATTERN_EXT	VARCHAR2(3)	-	-	X
SHIP_DEL_TIME_CODE_EXT	VARCHAR2(3)	-	-	X
SHIP_DEL_RULE_NAME	VARCHAR2(30)	-	-	X
SHIP_FROM_ADDRESS_1_EXT	VARCHAR2(35)	-	-	X
SHIP_FROM_ADDRESS_2_EXT	VARCHAR2(35)	-	-	X
SHIP_FROM_ADDRESS_3_EXT	VARCHAR2(35)	-	-	X
SHIP_FROM_ADDRESS_4_EXT	VARCHAR2(35)	-	-	X
SHIP_FROM_CITY_EXT	VARCHAR2(30)	-	-	X
SHIP_FROM_COUNTRY_EXT	VARCHAR2(3)	-	-	X
SHIP_FROM_COUNTY_EXT	VARCHAR2(25)	-	-	X
SHIP_FROM_NAME_EXT	VARCHAR2(60)	-	-	X
SHIP_FROM_ORG_ID	NUMBER	-	-	X
SHIP_FROM_POSTAL_CD_EXT	VARCHAR2(15)	-	-	X
SHIP_FROM_PROVINCE_EXT	VARCHAR2(10)	-	-	X
SHIP_FROM_STATE_EXT	VARCHAR2(10)	-	-	X

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
SHIP_LABEL_INFO_LINE_1	VARCHAR2(80)	-	-	X
SHIP_LABEL_INFO_LINE_10	VARCHAR2(80)	-	-	X
SHIP_LABEL_INFO_LINE_2	VARCHAR2(80)	-	-	X
SHIP_LABEL_INFO_LINE_3	VARCHAR2(80)	-	-	X
SHIP_LABEL_INFO_LINE_4	VARCHAR2(80)	-	-	X
SHIP_LABEL_INFO_LINE_5	VARCHAR2(80)	-	-	X
SHIP_LABEL_INFO_LINE_6	VARCHAR2(80)	-	-	X
SHIP_LABEL_INFO_LINE_7	VARCHAR2(80)	-	-	X
SHIP_LABEL_INFO_LINE_8	VARCHAR2(80)	-	-	X
SHIP_LABEL_INFO_LINE_9	VARCHAR2(80)	-	-	X
SHIP_TO_ADDRESS_1_EXT	VARCHAR2(35)	-	-	X
SHIP_TO_ADDRESS_2_EXT	VARCHAR2(35)	-	-	X
SHIP_TO_ADDRESS_3_EXT	VARCHAR2(35)	-	-	X
SHIP_TO_ADDRESS_4_EXT	VARCHAR2(35)	-	-	X
SHIP_TO_ADDRESS_ID	NUMBER	-	-	X
DELIVER_TO_ORG_ID	NUMBER	-	-	X
SHIP_TO_CITY_EXT	VARCHAR2(30)	-	-	X
SHIP_TO_COUNTRY_EXT	VARCHAR2(3)	-	-	X
SHIP_TO_COUNTY_EXT	VARCHAR2(25)	-	-	X
SHIP_TO_NAME_EXT	VARCHAR2(60)	-	-	X
SHIP_TO_POSTAL_CD_EXT	VARCHAR2(15)	-	-	X
SHIP_TO_PROVINCE_EXT	VARCHAR2(10)	-	-	X
SHIP_TO_SITE_USE_ID	NUMBER	-	-	X
SHIP_TO_STATE_EXT	VARCHAR2(10)	-	-	X
START_DATE_TIME	DATE	-	-	X
SUBLINE_ASSIGNED_ID_EXT	VARCHAR2(20)	-	-	X
SUBLINE_CONFIG_CODE_EXT	VARCHAR2(3)	-	-	X

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
SUBLINE_CUST_ITEM_EXT	VARCHAR2(50)	-	-	X
SUBLINE_CUST_ITEM_ID	NUMBER	-	-	X
SUBLINE_MODEL_NUM_EXT	VARCHAR2(35)	-	-	X
SUBLINE_QUANTITY	NUMBER	-	-	X
SUBLINE_UOM_CODE	VARCHAR2(3)	-	-	X
SUPPLIER_ITEM_EXT	VARCHAR2(35)	-	-	X
TRANSIT_TIME_EXT	VARCHAR2(22)	-	-	X
TRANSIT_TIME_QUAL_EXT	VARCHAR2(3)	-	-	X
TRANSPORT_LOC_QUAL_EXT	VARCHAR2(3)	-	-	X
TRANSPORT_LOCATION_EXT	VARCHAR2(35)	-	-	X
TRANSPORT_METHOD_EXT	VARCHAR2(3)	-	-	X
UOM_CODE	VARCHAR2(3)	-	-	X
WEIGHT_EXT	NUMBER	-	-	X
WEIGHT_QUALIFIER_EXT	VARCHAR2(3)	-	-	X
WEIGHT_UOM_EXT	VARCHAR2(3)	-	-	X
FBO_CONFIGURATION_KEY_1	VARCHAR2(35)	-	-	X
FBO_CONFIGURATION_KEY_2	VARCHAR2(35)	-	-	X
FBO_CONFIGURATION_KEY_3	VARCHAR2(35)	-	-	X
FBO_CONFIGURATION_KEY_4	VARCHAR2(35)	-	-	X
FBO_CONFIGURATION_KEY_5	VARCHAR2(35)	-	-	X
MATCH_KEY_ACROSS	VARCHAR2(150)	-	-	X
MATCH_KEY_WITHIN	VARCHAR2(150)	-	-	X
CRITICAL_KEY_ATTRIBUTES	VARCHAR2(150)	-	-	X
LAST_UPDATE_DATE	DATE	-	X	-
LAST_UPDATED_BY	NUMBER	-	X	-
CREATION_DATE	DATE	-	X	-
CREATED_BY	NUMBER	-	X	-

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
ATTRIBUTE_CATEGORY	VARCHAR2(30)	-	-	X
ATTRIBUTE1	VARCHAR2(150)	-	-	X
ATTRIBUTE2	VARCHAR2(150)	-	-	X
ATTRIBUTE3	VARCHAR2(150)	-	-	X
ATTRIBUTE4	VARCHAR2(150)	-	-	X
ATTRIBUTE5	VARCHAR2(150)	-	-	X
ATTRIBUTE6	VARCHAR2(150)	-	-	X
ATTRIBUTE7	VARCHAR2(150)	-	-	X
ATTRIBUTE8	VARCHAR2(150)	-	-	X
ATTRIBUTE9	VARCHAR2(150)	-	-	X
ATTRIBUTE10	VARCHAR2(150)	-	-	X
ATTRIBUTE11	VARCHAR2(150)	-	-	X
ATTRIBUTE12	VARCHAR2(150)	-	-	X
ATTRIBUTE13	VARCHAR2(150)	-	-	X
ATTRIBUTE14	VARCHAR2(150)	-	-	X
ATTRIBUTE15	VARCHAR2(150)	-	-	X
LAST_UPDATE_LOGIN	NUMBER	-	X	-
REQUEST_ID	NUMBER	-	X	-
PROGRAM_APPLICATION_ID	NUMBER	-	X	-
PROGRAM_ID	NUMBER	-	X	-
PROGRAM_UPDATE_DATE	DATE	-	X	-
TP_ATTRIBUTE1	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE2	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE3	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE4	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE5	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE6	VARCHAR2(150)	-	-	X

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
TP_ATTRIBUTE7	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE8	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE9	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE10	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE11	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE12	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE13	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE14	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE15	VARCHAR2(150)	-	-	X
TP_ATTRIBUTE_CATEGORY	VARCHAR2(30)	-	-	X
LINE_NUMBER	NUMBER	-	-	X
INTMED_SHIP_TO_ORG_ID	NUMBER	-	-	X
LINE_SOURCE	VARCHAR2(30)	-	-	X
PREFERRED_GRADE	VARCHAR2(4)	-	-	X
CUST_PRODUCTION_SEQ_NUM_BEG	VARCHAR2(35)	-	-	X
CUST_PRODUCTION_SEQ_NUM_END	VARCHAR2(35)	-	-	X
ITEM_DETAIL_QUANTITY_MIN_EXT	NUMBER	-	-	X
ITEM_DETAIL_QUANTITY_MAX_EXT	NUMBER	-	-	X
ITEM_DETAIL_QUANTITY_PRIOR_EXT	NUMBER	-	-	X
REQUIREMENT_PRIORITY_EXT	NUMBER	-	-	X
PROJECT_NUMBER_EXT	VARCHAR2(50)	-	-	X
RESP_LINE_NUMBER	VARCHAR2(35)	-	-	X
TASK_NUMBER_EXT	VARCHAR2(50)	-	-	X
UPC_EXT	VARCHAR2(50)	-	-	X

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
ITEM_ENG_CNG_LVL_DATE_EXT	DATE	-	-	X
AUTHORIZATION_CODE_EXT	VARCHAR2(50)	-	-	X
PACKAGING_DESC_EXT	VARCHAR2(80)	-	-	X
BILL_TO_ADDRESS_5_EXT	VARCHAR2(35)	-	-	X
BILL_TO_ADDRESS_6_EXT	VARCHAR2(35)	-	-	X
BILL_TO_ADDRESS_7_EXT	VARCHAR2(35)	-	-	X
BILL_TO_ADDRESS_8_EXT	VARCHAR2(35)	-	-	X
BILL_TO_ADDRESS_9_EXT	VARCHAR2(35)	-	-	X
ONE_TIME_BILL_TO_FLAG_EXT	VARCHAR2(35)	-	-	X
BILL_TO_DESCRIPTION_EXT	VARCHAR2(50)	-	-	X
BILL_TO_FAX_EXT	VARCHAR2(35)	-	-	X
BILL_TO_REGION_EXT	VARCHAR2(35)	-	-	X
BILL_TO_JURISDICTION_EXT	VARCHAR2(35)	-	-	X
BILL_TO_TEL_EXT	VARCHAR2(35)	-	-	X
INTRMD_ST_ADDRESS_5_EXT	VARCHAR2(35)	-	-	X
INTRMD_ST_ADDRESS_6_EXT	VARCHAR2(35)	-	-	X
INTRMD_ST_ADDRESS_7_EXT	VARCHAR2(35)	-	-	X
INTRMD_ST_ADDRESS_8_EXT	VARCHAR2(35)	-	-	X
INTRMD_ST_ADDRESS_9_EXT	VARCHAR2(35)	-	-	X
ONE_TIME_INTRMD_ST_FLAG_ EXT	VARCHAR2(35)	-	-	X
INTRMD_ST_DESCRIPTION_EXT	VARCHAR2(50)	-	-	X
INTRMD_ST_FAX_EXT	VARCHAR2(35)	-	-	X
INTRMD_ST_REGION_EXT	VARCHAR2(35)	-	-	X
INTRMD_ST_JURISDICTION_EXT	VARCHAR2(35)	-	-	X
INTRMD_ST_TEL_EXT	VARCHAR2(35)	-	-	X
SHIP_TO_ADDRESS_5_EXT	VARCHAR2(35)	-	-	X

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
SHIP_TO_ADDRESS_6_EXT	VARCHAR2(35)	-	-	X
SHIP_TO_ADDRESS_7_EXT	VARCHAR2(35)	-	-	X
SHIP_TO_ADDRESS_8_EXT	VARCHAR2(35)	-	-	X
SHIP_TO_ADDRESS_9_EXT	VARCHAR2(35)	-	-	X
ONE_TIME_SHIP_TO_FLAG_EXT	VARCHAR2(35)	-	-	X
SHIP_TO_DESCRIPTION_EXT	VARCHAR2(50)	-	-	X
SHIP_TO_FAX_EXT	VARCHAR2(35)	-	-	X
SHIP_TO_REGION_EXT	VARCHAR2(35)	-	-	X
SHIP_TO_JURISDICTION_EXT	VARCHAR2(35)	-	-	X
SHIP_TO_TEL_EXT	VARCHAR2(35)	-	-	X
SHIP_FROM_ADDRESS_5_EXT	VARCHAR2(35)	-	-	X
SHIP_FROM_ADDRESS_6_EXT	VARCHAR2(35)	-	-	X
SHIP_FROM_ADDRESS_7_EXT	VARCHAR2(35)	-	-	X
SHIP_FROM_ADDRESS_8_EXT	VARCHAR2(35)	-	-	X
SHIP_FROM_ADDRESS_9_EXT	VARCHAR2(35)	-	-	X
ONE_TIME_SHIP_FROM_FLAG_ EXT	VARCHAR2(35)	-	-	X
SHIP_FROM_DESCRIPTION_EXT	VARCHAR2(50)	-	-	X
SHIP_FROM_FAX_EXT	VARCHAR2(35)	-	-	X
SHIP_FROM_REGION_EXT	VARCHAR2(35)	-	-	X
SHIP_FROM_JURISDICTION_EXT	VARCHAR2(35)	-	-	X
SHIP_FROM_TEL_EXT	VARCHAR2(35)	-	-	X

Column Descriptions

LINE_ID NUMBER

Sequence generated unique identifier.

HEADER_ID NUMBER

Sequence generated unique identifier foreign key to the RLM_INTERFACE_HEADERS_ALL.

AGREEMENT_ID NUMBER

Unique identifier for agreement on which customer purchase order is associated. FK to RA_AGREEMENTS

ATO_DATA_TYPE VARCHAR2(30)

Code to describe what type of data is included for the ATO item:

- 1=Model and Options
- 2=Model
- 3=Options

Validated against FND_LOOKUPS.LOOKUP_TYPE =RLM_ITEM_METHOD_TYPE

BILL_TO_ADDRESS_1_EXT VARCHAR2(35)

Bill to address line 1, as sent by the customer on the N3 segment.

BILL_TO_ADDRESS_2_EXT VARCHAR2(35)

Bill to address line 2, as sent by the customer on the N3 segment.

BILL_TO_ADDRESS_3_EXT VARCHAR2(35)

Bill to address line 3, as sent by the customer on the N3 segment.

BILL_TO_ADDRESS_4_EXT VARCHAR2(35)

Bill to address line 4, as sent by the customer on the N3 segment.

BILL_TO_ADDRESS_ID NUMBER

Bill to address identifier. FK to RA_ADDRESSES.

INVOICE_TO_ORG_ID NUMBER

Unique identifier for invoice-to organization which relates to BILL_TO_ADDRESS_ID. FK in R12 customer-org data model to HR_ORGANIZATIONS.

BILL_TO_CITY_EXT **VARCHAR2(30)**
Bill to address city, as sent by the customer on the N4 segment.

BILL_TO_COUNTRY_EXT **VARCHAR2(3)**
Bill to country, as sent by the customer on the N4 segment.

BILL_TO_COUNTY_EXT **VARCHAR2(25)**
Bill to county, as sent by the customer on the N4 segment.

BILL_TO_NAME_EXT **VARCHAR2(60)**
Bill to name, as sent by the customer in the N1 and/or N2 segment.

BILL_TO_POSTAL_CD_EXT **VARCHAR2(15)**
Bill to address postal code, as sent by the customer on the N4 segment.

BILL_TO_PROVINCE_EXT **VARCHAR2(10)**
Bill to province, as sent by the customer on the N4 segment.

BILL_TO_SITE_USE_ID **NUMBER**
Bill to site use identifier. FK to RA_SITE_USES.

BILL_TO_STATE_EXT **VARCHAR2(10)**
Bill to state, as sent by the customer on the N4 segment.

CARRIER_ID_CODE_EXT **VARCHAR2(35)**
The carrier id, as sent by the customer on the TD5 segment.

CARRIER_QUALIFIER_EXT **VARCHAR2(3)**
The carrier qualifier, as sent by the customer on the TD5 segment.

COMMODITY_EXT **VARCHAR2(35)**
Customer specified commodity code.

COUNTRY_OF_ORIGIN_EXT **VARCHAR2(35)**
Customer-specified country of origin.

CUST_ASSEMBLY_EXT **VARCHAR2(30)**

The customer's assembly identification, as sent on the LIN segment of the 866 transaction.

CUST_ASSIGNED_ID_EXT **VARCHAR2(20)**

Customer assigned identification for differentiation within a transaction set, from LIN01.

CUST_BILL_TO_EXT **VARCHAR2(35)**

External customer bill to cross reference.

CUST_CONTRACT_NUM_EXT **VARCHAR2(35)**

The customer's contract number, as sent on the LIN segment of the 830 transaction.

CUSTOMER_DOCK_CODE **VARCHAR2(50)**

Customer dock code.

CUST_INTERMD_SHIP_TO_EXT **VARCHAR2(35)**

External intermediate ship to cross reference.

CUST_ITEM_PRICE_EXT **NUMBER**

Price included on the customer's EDI transaction.

CUST_ITEM_PRICE_UOM_EXT **VARCHAR2(3)**

UOM corresponding to the price included on the customer's EDI transaction.

CUSTOMER_ITEM_REVISION **VARCHAR2(35)**

Customer part revision included on schedule.

CUSTOMER_JOB **VARCHAR2(50)**

Customer job number.

CUST_MANUFACTURER_EXT **VARCHAR2(35)**

The manufacturer, as sent by the customer on the LIN segment of the 866 transaction.

CUST_MODEL_NUMBER_EXT **VARCHAR2(35)**

Customer's model number for this sequenced detail.

CUST_MODEL_SERIAL_NUMBER **VARCHAR2(35)**

Customer's vehicle identification number for this sequenced detail, e.g. VIN or Chassis ID.

CUST_ORDER_NUM_EXT **VARCHAR2(35)**

The order number, as sent by the customer on the LIN segment of the 866 and 830 transaction.

CUST_PROCESS_NUM_EXT **VARCHAR2(35)**

The process number, as sent by the customer on the LIN segment of the 866 and 862 transaction.

CUST_PRODUCTION_LINE **VARCHAR2(50)**

Customer production line.

CUSTOMER_PROD_SEQ_NUM **VARCHAR2(350)**

Customer production sequence number, or delivery number.

CUST_SET_NUM_EXT **VARCHAR2(35)**

The customer's set number, as sent on the LIN segment of the 862 and 866 transactions.

CUST_SHIP_FROM_ORG_EXT **VARCHAR2(80)**

External inventory organization cross reference.

CUST_SHIP_TO_EXT **VARCHAR2(35)**

External ship to address cross reference.

CUST_UOM_EXT **VARCHAR2(10)**

External customer unit of measure cross reference.

CUSTOMER_ITEM_EXT **VARCHAR2(50)**

External customer part number cross reference.

CUSTOMER_ITEM_ID **NUMBER**

Customer item identifier. FK to MTL_CUSTOMER_ITEMS.

REQUEST_DATE DATE

The date and time the customer wants the material delivered or shipped, based on whether the requirements are delivery based or ship based.

SCHEDULE_DATE DATE

Planned shipment date and time (request_date - delivery lead time if delivery based).

DATE_TYPE_CODE VARCHAR2(30)

Type of start/end date, e.g. ship, deliver, Pull signal, Cumulative. Validated against FND_LOOKUPS.LOOKUP_TYPE =RLM_DATE_TYPE_CODE

DATE_TYPE_CODE_EXT VARCHAR2(30)

External value from which DATE_TYPE_CODE was derived in EDI Gateway code conversion.

DELIVERY_LEAD_TIME NUMBER

For demand lines, the difference between arrival and shipment dates, based on default shipping method between the ship-from and ship-to locations. This is determined by the calculate ship date routine and passed into Order Import.

END_DATE_TIME DATE

Customer-specified optional end date/time, applicable for flexible bucketed requirements, and cumulative information such as authorizations and shipped/received.

EQUIPMENT_CODE_EXT VARCHAR2(3)

The equipment code, as sent by the customer on the TD3 segment.

EQUIPMENT_NUMBER_EXT VARCHAR2(35)

The equipment number, as sent by the customer on the TD3 segment.

HANDLING_CODE_EXT VARCHAR2(3)

Special handling code as sent by the customer in the TD4 segment.

HAZARD_CODE_EXT VARCHAR2(10)

Hazardous material code corresponding to the hazardous material code qualifier as sent by the customer in the TD4 segment.

HAZARD_CODE_QUAL_EXT **VARCHAR2(3)**
Hazardous material code qualifier as sent by the customer in the TD4 segment.

HAZARD_DESCRIPTION_EXT **VARCHAR2(80)**
Hazardous material description as sent by the customer in the TD4 segment.

IMPORT_LICENSE_DATE_EXT **DATE**
Customer's import license date.

IMPORT_LICENSE_EXT **VARCHAR2(35)**
Customer's import license for shipment destination country.

INDUSTRY_ATTR IBUTE1 **VARCHAR2(150)**
Record keeping or model year.

INDUSTRY_ATTRIBUTE10 **VARCHAR2(150)**
Industry descriptive flexfield.

INDUSTRY_ATTRIBUTE11 **VARCHAR2(150)**
Industry descriptive flexfield.

INDUSTRY_ATTRIBUTE12 **VARCHAR2(150)**
Industry descriptive flexfield.

INDUSTRY_ATTRIBUTE13 **VARCHAR2(150)**
Industry descriptive flexfield.

INDUSTRY_ATTRIBUTE14 **VARCHAR2(150)**
Industry descriptive flexfield.

INDUSTRY_ATTRIBUTE15 **VARCHAR2(150)**
Industry descriptive flexfield.

INDUSTRY_ATTRIBUTE2 **VARCHAR2(150)**
Industry descriptive flexfield.

INDUSTRY_ATTRIBUTE3 **VARCHAR2(150)**
Industry descriptive flexfield.

INDUSTRY_ATTRIBUTE4 **VARCHAR2(150)**
Industry descriptive flexfield.

INDUSTRY_ATTRIBUTE5 **VARCHAR2(150)**
Industry descriptive flexfield.

INDUSTRY_ATTRIBUTE6 **VARCHAR2(150)**
Industry descriptive flexfield.

INDUSTRY_ATTRIBUTE7 **VARCHAR2(150)**
Industry descriptive flexfield.

INDUSTRY_ATTRIBUTE8 **VARCHAR2(150)**
Industry descriptive flexfield.

INDUSTRY_ATTRIBUTE9 **VARCHAR2(150)**
Industry descriptive flexfield.

INDUSTRY_CONTEXT **VARCHAR2(30)**
Industry descriptive context flexfield.

INTERMEDIATE_SHIP_TO_ID **NUMBER**
Customer intermediate ship-to destination unique identifier. FK to RA_ADDRESSES

SHIP_TO_ORG_ID **NUMBER**
Unique identifier for ship-to organization which relates to SHIP_TO_ADDRESS_ID if there is no intermediate ship-to address, or to INTERMEDIATE_SHIP_TO_ID if intermediate ship-to address is specified. FK in R12 customer-org data model to HR_ ORGANIZATIONS.

INTRMD_ST_ADDRESS_1_EXT **VARCHAR2(35)**
Intermediate ship to address line 1, as sent by the customer on the N3 segment.

INTRMD_ST_ADDRESS_2_EXT **VARCHAR2(35)**
Intermediate ship to address line 2, as sent by the customer on the N3 segment.

INTRMD_ST_ADDRESS_3_EXT **VARCHAR2(35)**
Intermediate ship to address line 3, as sent by the customer on the N3 segment.

INTRMD_ST_ADDRESS_4_EXT **VARCHAR2(35)**
Intermediate ship to address line 4, as sent by the customer on the N3 segment.

INTRMD_ST_CITY_EXT **VARCHAR2(30)**
Intermediate ship to address city, as sent by the customer on the N4 segment.

INTRMD_ST_COUNTRY_EXT **VARCHAR2(3)**
Intermediate ship to country, as sent by the customer on the N4 segment.

INTRMD_ST_COUNTY_EXT **VARCHAR2(25)**
Intermediate ship to county, as sent by the customer on the N4 segment.

INTRMD_ST_NAME_EXT **VARCHAR2(60)**
Intermediate ship to name, as sent by the customer in the N1 and/or N2 segment.

INTRMD_ST_POSTAL_CD_EXT **VARCHAR2(15)**
Intermediate ship to address postal code, as sent by the customer on the N4 segment.

INTRMD_ST_PROVINCE_EXT **VARCHAR2(10)**
Intermediate ship to province, as sent by the customer on the N4 segment.

INTRMD_ST_STATE_EXT **VARCHAR2(10)**
Intermediate ship to state, as sent by the customer on the N4 segment.

INTRMD_ST_SITE_USE_ID **NUMBER**
Intermediate ship to site use identifier, FK to RA_SITE_USES.

INVENTORY_ITEM_ID **NUMBER**
Inventory item identifier. FK to MTL_SYSTEM_ITEMS.

INVENTORY_ITEM_SEGMENT1 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT10 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT11 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT12 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT13 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT14 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT15 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT16 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT17 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT18 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT19 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT2 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT20 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT3 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT4 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT5 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT6 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT7 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT8 **VARCHAR2(40)**
Accounting flexfield.

INVENTORY_ITEM_SEGMENT9 **VARCHAR2(40)**
Accounting flexfield.

ITEM_CONTACT_CODE_1 **VARCHAR2(3)**
Contact code 1 included in customer's EDI transaction.

ITEM_CONTACT_CODE_2 **VARCHAR2(3)**
Contact code 2 included in customer's EDI transaction.

ITEM_CONTACT_VALUE_1 **VARCHAR2(80)**
Values associated with contact code 1: concatenation of name, communication code, and communication number.

ITEM_CONTACT_VALUE_2 VARCHAR2(80)

Values associated with contact code 2 : concatenation of name, communication code, and communication number.

ITEM_DESCRIPTION_EXT VARCHAR2(80)

Item description included on schedule.

ITEM_DETAIL_QUANTITY NUMBER

Requested quantity.

- If Item_Detail_Type = 0,1,2, this is the demand quantity.
- If Item_Detail_Type = 3, this is the authorization quantity.
- If Item_Detail_Type = 4, this is the shipped, received or cum quantity.
- If Item_Detail_Type = 5, this is a miscellaneous quantity, such as ahead/behind, inventory balance, etc.

ITEM_DETAIL_REF_CODE_1 VARCHAR2(3)

Reference code 1 included in customer's EDI transaction.

ITEM_DETAIL_REF_CODE_2 VARCHAR2(3)

Reference code 2 included in customer's EDI transaction.

ITEM_DETAIL_REF_CODE_3 VARCHAR2(3)

Reference code 3 included in customer's EDI transaction.

ITEM_DETAIL_REF_VALUE_1 VARCHAR2(35)

Value associated with reference code 1.

ITEM_DETAIL_REF_VALUE_2 VARCHAR2(35)

Value associated with reference code 2.

ITEM_DETAIL_REF_VALUE_3 VARCHAR2(35)

Value associated with reference code 3.

ITEM_DETAIL_SUBTYPE VARCHAR2(30)

Schedule item detail row sub-type:

- for form or forecast demand, Bucket type associated with the demand date/quantity;
- for authorizations, the type of authorization;
- for shipment/receipt, cumulative or last.

Validated against FND_LOOKUPS.

ITEM_DETAIL_SUBTYPE_EXT VARCHAR2(30)

External value from which ITEM_DETAIL_SUBTYPE was derived in EDI Gateway Code Conversion.

ITEM_DETAIL_TYPE VARCHAR2(30)

Schedule item detail row type: 0 = Past Due Firm1 = Firm Demand, 2 = Forecast Demand, 3 = Authorization, 4 = Shipment/Receipt Info, 5 = OtherValidated against FND_ LOOKUPS.LOOKUP_TYPE =RLM_DETAIL_TYPE_CODE

ITEM_DETAIL_TYPE_EXT VARCHAR2(30)

External value from which ITEM_DETAIL_TYPE was derived in EDI Gateway Code Conversion.

ITEM_ENG_CNG_LVL_EXT VARCHAR2(35)

Customer part engineering change level included on schedule

ITEM_MEASUREMENTS_EXT VARCHAR2(240)

Item measurement information as sent by the customer on the MEA segments.

ITEM_NOTE_TEXT VARCHAR2(240)

Free form item note text included in the schedule.

ITEM_REF_CODE_1 VARCHAR2(3)

Reference code 1 included in customer’s EDI transaction (not validated).

ITEM_REF_CODE_2 VARCHAR2(3)

Reference code 2 included in customer’s EDI transaction (not validated).

ITEM_REF_CODE_3 **VARCHAR2(3)**

Reference code 3 included in customer's EDI transaction (not validated).

ITEM_REF_VALUE_1 **VARCHAR2(35)**

Value associated with reference code 1.

ITEM_REF_VALUE_2 **VARCHAR2(35)**

Value associated with reference code 2.

ITEM_REF_VALUE_3 **VARCHAR2(35)**

Value associated with reference code 3.

ITEM_RELEASE_STATUS_EXT **VARCHAR2(3)**

Customer part release status included on schedule.

LADING_QUANTITY_EXT **NUMBER**

The lading quantity as sent by the customer on the TD1 segment.

LETTER_CREDIT_EXPDT_EXT **DATE**

Customerís letter of credit expiration date.

LETTER_CREDIT_EXT **VARCHAR2(35)**

Customerís letter of credit with international bank guaranteeing payment for international shipments.

LINE_REFERENCE **VARCHAR2(50)**

Unique line identifier within an order for a transmission identifier.

LINK_TO_LINE_REF **VARCHAR2(50)**

Link to Immediate Parent_line_reference within an order for a transmission identifier.

ORDER_HEADER_ID **NUMBER**

Order header identifier. FK to OE_ORDER_HEADERS.

ORG_ID **NUMBER**

Operating unit unique id. FK to HR_ORGANIZATION_UNITS.

OTHER_NAME_CODE_1 **VARCHAR2(3)**

Other name code 1 included in customer's EDI transaction (not validated).

OTHER_NAME_CODE_2 **VARCHAR2(3)**

Other name code 2 included in customer's EDI transaction (not validated).

OTHER_NAME_VALUE_1 **VARCHAR2(80)**

Values associated with other name code 1: concatenation of name, code, and number.

OTHER_NAME_VALUE_2 **VARCHAR2(80)**

Values associated with other name code 2: concatenation of name, code, and number.

PACK_SIZE_EXT **NUMBER**

Size of supplier units in pack, as sent by the customer on the PO4 segment.

PACK_UNITS_PER_PACK_EXT **NUMBER**

Number of inner pack units per out pack unit, as sent by the customer on the PO4 segment.

PACK_UOM_CODE_EXT **VARCHAR2(3)**

Unit of measure of supplier units in the pack, as sent by the customer in the PO4 segment.

PACKAGING_CODE_EXT **VARCHAR2(10)**

The packaging code as sent by the customer on TD1 segment.

PARENT_LINK_LINE_REF **VARCHAR2(50)**

Line reference of top model for a transmission identifier for an order.

PRICE_LIST_ID **NUMBER**

Unique identifier for price list associated with customer item or agreement on which customer purchase order is associated. FK to RA_PRICE_LISTS

PRIMARY_QUANTITY NUMBER

Quantity in the primary UOM.

PRIMARY_UOM_CODE VARCHAR2(3)

Primary unit of measure. FK to MTL_UNITS_OF_MEASURE

PRIME_CONTRCTR_PART_EXT VARCHAR2(35)

The prime contractor part number, as sent by the customer on the LIN segment of the 862 segment.

PROCESS_STATUS NUMBER

Indicates the current processing status of a record

- 1=do not process
- 2=waiting to be processed
- 3=in process
- 4=error
- 5=processed
- 6="processed with error(s)" for headers with lines in-error

CUST_PO_RELEASE_NUM VARCHAR2(35)

Customer purchase order release number included on schedule.

CUST_PO_DATE DATE

Customer purchase order line number included on schedule.

CUST_PO_LINE_NUM VARCHAR2(35)

Customer-specified effectivity date of purchase order number included on schedule.

CUST_PO_NUMBER VARCHAR2(50)

Customer purchase order number.

QTY_TYPE_CODE VARCHAR2(30)

Actual or Cumulative. Validated against FND_LOOKUPS.LOOKUP_TYPE =RLM_QTY_TYPE_CODE

QTY_TYPE_CODE_EXT VARCHAR2(30)

External value from which QTY_TYPE_CODE was derived in EDI Gateway Code Conversion.

RETURN_CONTAINER_EXT VARCHAR2(35)

Returnable container specified by customer for item shipment.

RLM_SCHEDULE_LINE_ID NUMBER

Schedule line unique identifier. FK to RLM_SCHEDULE_LINES, except for aggregated schedule lines.

ROUTING_DESC_EXT VARCHAR2(35)

The routing description, as sent by the customer on the TD5 segment.

ROUTING_SEQ_CODE_EXT VARCHAR2(3)

Code describing the relationship of a carrier to a specific shipment movement, as sent by the customer on the TD5 segment.

SCHEDULE_ITEM_NUM NUMBER

Schedule Item Number, the means to identify how item demand and information is grouped by the customer within the schedule. For sequenced schedules, it is equal to CUSTOMER_PROD_SEQ_NUM. For EDI planning and shipping schedules, it is incremented in the EDI Gateway when each 2000 record is encountered on an inbound SPSI or SSSI transaction. This number is assigned for manually entered schedules. All interface lines with the same schedule item number are validated together, and pass or fail validation as a group.

SHIP_DEL_PATTERN_EXT VARCHAR2(3)

Customer ship delivery pattern code for this item; not integrated with delivery rules for date/quantity calculation.

SHIP_DEL_TIME_CODE_EXT VARCHAR2(3)

Customer ship delivery time code for this item; not integrated with delivery rules for date/quantity calculation.

SHIP_DEL_RULE_NAME VARCHAR2(30)

Shipment/delivery rule name for this schedule item. Initially populated only if a successful code conversion in the EDI Gateway has occurred. FK to RLM_SHIP_DELIVERY_CODES

SHIP_FROM_ADDRESS_1_EXT VARCHAR2(35)

Ship from address line 1, as sent by the customer on the N3 segment.

SHIP_FROM_ADDRESS_2_EXT VARCHAR2(35)

Ship from address line 2, as sent by the customer on the N3 segment.

SHIP_FROM_ADDRESS_3_EXT VARCHAR2(35)

Ship from address line 3, as sent by the customer on the N3 segment.

SHIP_FROM_ADDRESS_4_EXT VARCHAR2(35)

Ship from address line 4, as sent by the customer on the N3 segment.

SHIP_FROM_CITY_EXT VARCHAR2(30)

Ship from address city, as sent by the customer on the N4 segment.

SHIP_FROM_COUNTRY_EXT VARCHAR2(3)

Ship from country, as sent by the customer on the N4 segment.

SHIP_FROM_COUNTY_EXT VARCHAR2(25)

Ship from county, as sent by the customer on the N4 segment.

SHIP_FROM_NAME_EXT VARCHAR2(60)

Ship from name, as sent by the customer in the N1 or N2 segment.

SHIP_FROM_ORG_ID NUMBER

Ship from organization identifier. FK to MTL_PARAMETERS and HR_ ORGANIZATIONS.

SHIP_FROM_POSTAL_CD_EXT VARCHAR2(15)

Ship from address postal code, as sent by the customer on the N4 segment.

SHIP_FROM_PROVINCE_EXT **VARCHAR2(10)**
Ship from province, as sent by the customer on the N4 segment.

SHIP_FROM_STATE_EXT **VARCHAR2(10)**
Ship from state, as sent by the customer on the N4 segment.

SHIP_LABEL_INFO_LINE_1 **VARCHAR2(80)**
Pull signal bar-code label routing information - line 1.

SHIP_LABEL_INFO_LINE_10 **VARCHAR2(80)**
Pull signal bar-code label routing information - line 10.

SHIP_LABEL_INFO_LINE_2 **VARCHAR2(80)**
Pull signal bar-code label routing information - line 2.

SHIP_LABEL_INFO_LINE_3 **VARCHAR2(80)**
Pull signal bar-code label routing information - line 3.

SHIP_LABEL_INFO_LINE_4 **VARCHAR2(80)**
Pull signal bar-code label routing information - line 4.

SHIP_LABEL_INFO_LINE_5 **VARCHAR2(80)**
Pull signal bar-code label routing information - line 5.

SHIP_LABEL_INFO_LINE_6 **VARCHAR2(80)**
Pull signal bar-code label routing information - line 6.

SHIP_LABEL_INFO_LINE_7 **VARCHAR2(80)**
Pull signal bar-code label routing information - line 7.

SHIP_LABEL_INFO_LINE_8 **VARCHAR2(80)**
Pull signal bar-code label routing information - line 8.

SHIP_LABEL_INFO_LINE_9 **VARCHAR2(80)**
Pull signal bar-code label routing information - line 9.

SHIP_TO_ADDRESS_1_EXT **VARCHAR2(35)**

Ship to address line 1, as sent by the customer on the N3 segment.

SHIP_TO_ADDRESS_2_EXT **VARCHAR2(35)**

Ship to address line 2, as sent by the customer on the N3 segment.

SHIP_TO_ADDRESS_3_EXT **VARCHAR2(35)**

Ship to address line 3, as sent by the customer on the N3 segment.

SHIP_TO_ADDRESS_4_EXT **VARCHAR2(35)**

Ship to address line 4, as sent by the customer on the N3 segment.

SHIP_TO_ADDRESS_ID **NUMBER**

Ship to address identifier. FK to RA_ADDRESSES.

DELIVER_TO_ORG_ID **NUMBER**

Unique identifier for deliver-to organization which relates to SHIP_TO_ADDRESS_ID. FK in R12 customer-org data model to HR_ORGANIZATIONS

SHIP_TO_CITY_EXT **VARCHAR2(30)**

Ship to address city, as sent by the customer on the N4 segment.

SHIP_TO_COUNTRY_EXT **VARCHAR2(3)**

Ship to country, as sent by the customer on the N4 segment.

SHIP_TO_COUNTY_EXT **VARCHAR2(25)**

Ship to county, as sent by the customer on the N4 segment.

SHIP_TO_NAME_EXT **VARCHAR2(60)**

Ship to name, as sent by the customer on the N1 or N2 segment.

SHIP_TO_POSTAL_CD_EXT **VARCHAR2(15)**

Ship to address postal code, as sent by the customer on the N4 segment.

SHIP_TO_PROVINCE_EXT **VARCHAR2(10)**

Ship to province, as sent by the customer on the N4 segment.

SHIP_TO_SITE_USE_ID **NUMBER**

Ship to site use identifier. FK to RA_SITE_USES.

SHIP_TO_STATE_EXT **VARCHAR2(10)**

Ship to state, as sent by the customer on the N4 segment.

START_DATE_TIME **DATE**

Customer-specified date and time, as transmitted by the customer on the EDI transaction.

SUBLINE_ASSIGNED_ID_EXT **VARCHAR2(20)**

Subline customer assigned identification from the SLN01. Related to but not necessarily equivalent to the baseline number, assigned identification from LIN01. For example, 1.1 or 1A might be used as a subline number to relate to baseline number 1.

SUBLINE_CONFIG_CODE_EXT **VARCHAR2(3)**

The Subline Configuration Code, as sent by the customer on the SLN segment, indicating the relationship of the subline item to the baseline item.

SUBLINE_CUST_ITEM_EXT **VARCHAR2(50)**

Subline customer item number, as sent by the customer on the SLN segment.

SUBLINE_CUST_ITEM_ID **NUMBER**

Customer item unique identifier. FK to RLM_SHIP_FROM_CUST_ITEM.

SUBLINE_MODEL_NUM_EXT **VARCHAR2(35)**

Subline customer model number, as sent by the customer on the SLN segment.

SUBLINE_QUANTITY **NUMBER**

The subline quantity, as sent by the customer on the SLN segment.

SUBLINE_UOM_CODE VARCHAR2(3)

The subline unit of measure (internal) cross-referenced from the UOM sent by the customer on the SLN segment. FK to MTL_UNITS_OF_MEASURE.

SUPPLIER_ITEM_EXT VARCHAR2(35)

Supplier item number specified by customer.

TRANSIT_TIME_EXT VARCHAR2(22)

The transit time, as sent by the customer on the TD5 segment.

TRANSIT_TIME_QUAL_EXT VARCHAR2(3)

The transit time qualifier, as sent by the customer on the TD5 segment.

TRANSPORT_LOC_QUAL_EXT VARCHAR2(3)

The shipping location qualifier, as sent by the customer on the TD5 segment. This identifies the type of location which specified in the corresponding shipping location.

TRANSPORT_LOCATION_EXT VARCHAR2(35)

The specific shipping location (such as pool point or airport) corresponding to the shipping location qualifier, as sent by the customer on the TD5 segment. This corresponds to the shipping location qualifier.

TRANSPORT_METHOD_EXT VARCHAR2(3)

The transportation method, as sent by the customer on the TD5 segment.

UOM_CODE VARCHAR2(3)

Abbreviated unit of measure code. FK to MTL_UNITS_OF_MEASURE.

WEIGHT_EXT NUMBER

The weight, as sent by the customer on the TD1 segment.

WEIGHT_QUALIFIER_EXT VARCHAR2(3)

The weight qualifier, as sent by the customer on the TD1 segment.

WEIGHT_UOM_EXT VARCHAR2(3)

The unit of measure corresponding to shipment weight, as sent by the customer on the TD1 segment.

FBO_CONFIGURATION_KEY_1 VARCHAR2(35)

For FBO Production Sequence schedules, the 1st sort key for identifying configurations indicated by the customer.

FBO_CONFIGURATION_KEY_2 VARCHAR2(35)

For FBO Production Sequence schedules, the 2nd sort key for identifying configurations indicated by the customer.

FBO_CONFIGURATION_KEY_3 VARCHAR2(35)

For FBO Production Sequence schedules, the 3rd sort key for identifying configurations indicated by the customer.

FBO_CONFIGURATION_KEY_4 VARCHAR2(35)

For FBO Production Sequence schedules, the 4th sort key for identifying configurations indicated by the customer.

FBO_CONFIGURATION_KEY_5 VARCHAR2(35)

For FBO Production Sequence schedules, the 5th sort key for identifying configurations indicated by the customer.

MATCH_ACROSS_KEY VARCHAR2(150)

Audit trail of match across key used when this schedule was processed.

MATCH_WITHIN_KEY VARCHAR2(150)

Audit trail of match within key used when this schedule was processed.

CRITICAL_KEY_ATTRIBUTES VARCHAR2(150)

Audit trail of critical attributes key used when this schedule was processed. An exception (warning) is generated if one of these is missing on Firm demand.

LAST_UPDATE_DATE DATE

Standard Who column.

LAST_UPDATED_BY **NUMBER**
Standard Who column.

CREATION_DATE **DATE**
Standard Who column.

CREATED_BY **NUMBER**
Standard Who column.

ATTRIBUTE_CATEGORY **VARCHAR2(30)**
Descriptive flexfield context column.

ATTRIBUTE1 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE2 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE3 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE4 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE5 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE6 **VARCHAR2(150)**
Descriptive flexfield segment column

ATTRIBUTE7 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE8 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE9 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE10 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE11 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE12 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE13 **VARCHAR2(150)**
Descriptive flexfield segment column.

ATTRIBUTE14 **VARCHAR2(150)**
Descriptive flexfield segment column

ATTRIBUTE15 **VARCHAR2(150)**
Descriptive flexfield segment column.

LAST_UPDATE_LOGIN **NUMBER**
Standard Who column.

REQUEST_ID **NUMBER**
Standard Who column.

PROGRAM_APPLICATION_ID **NUMBER**
Standard Who column

PROGRAM_ID **NUMBER**
Standard Who column.

PROGRAM_UPDATE_DATE **DATE**
Standard Who column.

TP_ATTRIBUTE1 **VARCHAR2(150)**
Trading partner flexfield segment column.

TP_ATTRIBUTE2 **VARCHAR2(150)**
Trading partner flexfield segment column.

TP_ATTRIBUTE3 **VARCHAR2(150)**
Trading partner flexfield segment column.

TP_ATTRIBUTE4 **VARCHAR2(150)**
Trading partner flexfield segment column.

TP_ATTRIBUTE5 **VARCHAR2(150)**
Trading partner flexfield segment column.

TP_ATTRIBUTE6 **VARCHAR2(150)**
Trading partner flexfield segment column.

TP_ATTRIBUTE7 **VARCHAR2(150)**
Trading partner flexfield segment column.

TP_ATTRIBUTE8 **VARCHAR2(150)**
Trading partner flexfield segment column.

TP_ATTRIBUTE9 **VARCHAR2(150)**
Trading partner flexfield segment column.

TP_ATTRIBUTE10 **VARCHAR2(150)**
Trading partner flexfield segment column.

TP_ATTRIBUTE11 **VARCHAR2(150)**
Trading partner flexfield segment column.

TP_ATTRIBUTE12 **VARCHAR2(150)**
Trading partner flexfield segment column.

TP_ATTRIBUTE13 **VARCHAR2(150)**

Trading partner flexfield segment column.

TP_ATTRIBUTE14 **VARCHAR2(150)**

Trading partner flexfield segment column.

TP_ATTRIBUTE15 **VARCHAR2(150)**

Trading partner flexfield segment column.

TP_ATTRIBUTE_CATEGORY **VARCHAR2(30)**

Trading partner flexfield context column.

LINE_NUMBER **NUMBER**

Unique identifier of a line within a schedule.

INTMED_SHIP_TO_ORG_ID **NUMBER**

Unique identifier for intermediate ship-to organization which relates to INTERMEDIATE_SHIP_TO_ID if intermediate ship-to address is specified. FK to HR_ORGANIZATIONS

LINE_SOURCE **VARCHAR2(30)**

Schedule Source at line level since lines can also be manually entered.

PREFERRED_GRADE **VARCHAR2(4)**

Preferred grade.

CUST_PRODUCTION_SEQ_NBR_BEG **VARCHAR2(35)**

For future use.

CUST_PRODUCTION_SEQ_NBR_END **VARCHAR2(35)**

For future use.

ITEM_DETAIL_QUANTITY_MIN_EXT **NUMBER**

For future use.

ITEM_DETAIL_QUANTITY_MAX_EXT **NUMBER**

For future use.

ITEM_DETAIL_QUANTITY_PRIOR_EXT **NUMBER**

For future use.

REUIREMENT_PRIORITY_EXT **NUMBER**

For future use.

PROJECT_NUMBER_EXT **VARCHAR2(50)**

For future use.

RESP_LINE_NUMBER **VARCHAR2(35)**

For future use.

TASK_NUMBER_EXT **VARCHAR2(50)**

For future use.

UPC_EXT **VARCHAR2(50)**

For future use.

ITEM_ENG_CNG_LVL_DATE_EXT **DATE**

For future use.

AUTHORIZATION_CODE_EXT **VARCHAR2(50)**

For future use.

PACKAGING_DESC_EXT **VARCHAR2(80)**

For future use.

BILL_TO_ADDRESS_5_EXT **VARCHAR2(35)**

For future use.

BILL_TO_ADDRESS_6_EXT **VARCHAR2(35)**

For future use.

BILL_TO_ADDRESS_7_EXT **VARCHAR2(35)**
For future use.

BILL_TO_ADDRESS_8_EXT **VARCHAR2(35)**
For future use.

BILL_TO_ADDRESS_9_EXT **VARCHAR2(35)**
For future use.

ONE_TIME_BILL_TO_FLAG **VARCHAR2(35)**
For future use.

BILL_TO_DESCRIPTION_EXT **VARCHAR2(50)**
For future use.

BILL_TO_FAX_EXT **VARCHAR2(35)**
For future use.35

BILL_TO_REGION_EXT **VARCHAR2(35)**
For future use.

BILL_TO_JURISDICTION_EXT **VARCHAR2(35)**
For future use.

BILL_TO_TEL_EXT **VARCHAR2(35)**
For future use.

INTRMD_ST_ADDRESS_5_EXT **VARCHAR2(35)**
For future use.

INTRMD_ST_ADDRESS_6_EXT **VARCHAR2(35)**
For future use.

INTRMD_ST_ADDRESS_7_EXT **VARCHAR2(35)**
For future use.

INTRMD_ST_ADDRESS_8_EXT **VARCHAR2(35)**
For future use.

INTRMD_ST_ADDRESS_9_EXT **VARCHAR2(35)**
For future use.

ONE_TIME_INTRMD_ST_FLAG_EXT **VARCHAR2(35)**
For future use.

INTRMD_ST_DESCRIPTION_EXT **VARCHAR2(50)**
For future use.

INTRMD_ST_FAX_EXT **VARCHAR2(35)**
For future use.

INTRMD_ST_REGION_EXT **VARCHAR2(35)**
For future use.

INTRMD_ST_JURISDICTION_EXT **VARCHAR2(35)**
For future use.

INTRMD_ST_TEL_EXT **VARCHAR2(35)**
For future use.

SHIP_TO_ADDRESS_5_EXT **VARCHAR2(35)**
For future use.

SHIP_TO_ADDRESS_6_EXT **VARCHAR2(35)**
For future use.

SHIP_TO_ADDRESS_7_EXT **VARCHAR2(35)**
For future use.

SHIP_TO_ADDRESS_8_EXT **VARCHAR2(35)**
For future use.

SHIP_TO_ADDRESS_9_EXT **VARCHAR2(35)**
For future use.

ONE_TIME_SHIP_TO_FLAG_EXT **VARCHAR2(35)**
For future use.

SHIP_TO_DESCRIPTION_EXT **VARCHAR2(50)**
For future use.

SHIP_TO_FAX_EXT **VARCHAR2(35)**
For future use.

SHIP_TO_REGION_EXT **VARCHAR2(35)**
For future use.

SHIP_TO_JURISDICTION_EXT **VARCHAR2(35)**
For future use.

SHIP_TO_TEL_EXT **VARCHAR2(35)**
For future use.

SHIP_FROM_ADDRESS_5_EXT **VARCHAR2(35)**
For future use.

SHIP_FROM_ADDRESS_6_EXT **VARCHAR2(35)**
For future use.

SHIP_FROM_ADDRESS_7_EXT **VARCHAR2(35)**
For future use.

SHIP_FROM_ADDRESS_8_EXT **VARCHAR2(35)**
For future use.

SHIP_FROM_ADDRESS_9_EXT **VARCHAR2(35)**
For future use.

ONE_TIME_SHIP_FROM_FLAG_EXT **VARCHAR2(35)**

For future use.

SHIP_FROM_DESCRIPTION_EXT **VARCHAR2(50)**

For future use.

SHIP_FROM_FAX_EXT **VARCHAR2(35)**

For future use.

SHIP_FROM_REGION_EXT **VARCHAR2(35)**

For future use.

SHIP_FROM_JURISDICTION_EXT **VARCHAR2(35)**

For future use.

SHIP_FROM_TEL_TEXT **VARCHAR2(35)**

For future use

5

Oracle Shipping Execution Public APIs

This chapter contains the following information about Oracle Shipping Execution public application program interfaces (APIs):

- Overview of API Information on page 5-2
- Shipment Processing Using APIs on page 5-3
- API Package and Procedures Example on page 5-15
- Actions, APIs, and Parameters on page 5-26
- Application Parameter Initialization on page 5-39
- Trip Public Application Program Interface on page 5-40
- Stop Public Application Program Interface on page 5-49
- Deliveries Public Application Program Interface on page 5-59
- Exceptions Application Program Interface on page 5-78
- Delivery Details Public Application Program Interface on page 5-89
- Container Public Application Program Interface on page 5-115
- Freight Costs Public Application Program Interface on page 5-133
- Migration from Open Interfaces to Public APIs on page 5-147

Overview of API Information

This chapter contains the following information about Oracle Shipping Execution Public APIs for Release 11*i*:

- Shipment Processing Using APIs: Correlation between common Shipping Transaction Form tasks and Public APIs and some sample scenarios that you can use to process shipments through ship confirmation using APIs.
- API Package and Procedures Example: An example of two simple procedures in the same package that use the APIs.
- Public Application Program Interfaces: Descriptions of the APIs.
  - Actions, APIs, and Parameters: Descriptions of the APIs used for various functions and the API parameters.
  - Application Parameter Initialization: Description of the application parameter initialization call.
  - Trip API: Create and update trip records and perform actions on trips.
  - Stop API: Create and update stop records and perform actions on stops.
  - Deliveries API: Create and update trip stop records and perform actions on trip stops.
  - Delivery Details API: Assign and unassign delivery details to and from deliveries, split a delivery detail, update a delivery detail with new information, and create trips and deliveries for multiple delivery lines.
  - Container API: Create container records, update container records, autopack containers, perform actions on containers.
  - Freight Cost APIs: Create freight cost records, update freight cost records, validate freight cost types, delete freight cost records.
- Migration from Open Interfaces to Public APIs: Information about migrating your shipping process from the Releases 10.7 and 11 Delivery-based Ship Confirm Open Interface to the Release 11*i* public APIs.

Shipment Processing Using APIs

This section contains:

- Shipping Transaction Form/Public API Correlation Table: This table specifies the Public APIs that correspond to some common actions that you can perform on the Shipping Transaction Form.
- Sample Flow Scenarios: The scenarios show different paths to ship confirmation using APIs. Each step in the flows refers to a reference number (Ref) in the API Table.

> **Note:** As a general rule, if an attribute is not updatable from Shipping Transactions Form, then it is not updateable from the public API. If you pass a value for a non-updateable attribute, the code ignores the value and the existing value in the database is retained.

Shipping Transaction Form/Public API Correlation

The shipping flow scenarios refer to the reference numbers (Ref) in this table.

Table 5–1 Shipping Transaction Form/Public API Correlation

Ref	Function	STF Equivalent	Package. Procedure	API Action Codes	Data Requirements
1	Select delivery lines for processing	Find window > Search for Lines > Enter search criteria	This is not a specific API. To do this, populate API input parameter tables before submitting the API.	-	-
2.1	Create trips	Data Entry, Trip Data Entry > Enter data	WSH_TRIPS_ PUB. CREATE_ UPDATE_TRIP	CREATE	If known, provide information such as trip name, ship method, carrier ID, vehicle number.

Table 5–1 Shipping Transaction Form/Public API Correlation

Ref	Function	STF Equivalent	Package. Procedure	API Action Codes	Data Requirements
2.2	Update trips	Find window > Search for Trips > Enter trip name > Add/change /delete data	WSH_TRIPS_ PUB. CREATE_ UPDATE_TRIP	UPDATE	If known, provide vehicle type and vehicle number
2.3	Perform actions on trips	Find window > Search for Trips > Select action	WSH_TRIPS_ PUB.TRIP_ ACTION	PLAN, UNPLAN, DELETE, WT-VOL, PICK-RELEASE	-
3.1	Create stops	Data Entry, Stop Data Entry > Enter data	WSH_TRIPS_ STOPS_PUB. CREATE_ UPDATE_STOP	CREATE	Provide trip ID or trip name, stop location ID or stop location code, planned departure date, and planned arrival date.
3.2	Update stops	Find window > Search for Stops > Add/change /delete data	WSH_TRIPS_ STOPS_PUB. CREATE_ UPDATE_STOP	UPDATE	Provide change information, for example, planned dates.
3.3	Perform actions on stops	Find window > Search for Stops > Select action	WSH_TRIPS_ STOPS_PUB. STOP_ACTION	PLAN, UNPLAN, ARRIVE, CLOSE, DELETE, PICK-RELEASE	-
4.1	Create deliveries	Data Entry, Delivery Data Entry > Enter data	WSH_ DELIVERIES_ PUB.CREATE_ UPDATE_ DELIVERIES	CREATE	Provide organization, initial ship-from, and ultimate ship-to.

Table 5–1 Shipping Transaction Form/Public API Correlation

Ref	Function	STF Equivalent	Package. Procedure	API Action Codes	Data Requirements
4.2	Update deliveries	Find window > Search for Deliveries > Add/change / delete data	WSH_ DELIVERIES_ PUB. CREATE_ UPDATE_ DELIVERIES	UPDATE	-
4.3	Perform actions on deliveries	Find window > Search for Deliveries > Select action	WSH_ DELIVERIES_ PUB. DELIVERY_ ACTION	PLAN, UNPLAN, DELETE, WT-VOL, PICK-RELEASE, RE-OPEN, CLOSE	-
4.4	Assign and unassign deliveries to and from trips and stops	Find window > Search for Deliveries > Select action	WSH_ DELIVERIES_ PUB. DELIVERY_ ACTION	ASSIGN-TRIP, UNASSIGN-TRIP, AUTOCREATE -TRIP	For ASSIGN-TRIP, provide trip name.
4.5	Ship confirm deliveries	Find window > Search for Deliveries > Action: Ship Conform	WSH_ DELIVERIES_ PUB. DELIVERY_ ACTION	CONFIRM	Provide actual ship date.
5.1	Assign and unassign delivery lines to and from deliveries	Find window > Search for Lines > Enter delivery line number > Select action	WSH_ DELIVERY_ DETAILS_PUB. DETAIL_TO_ DELIVERY	ASSIGN, UNASSIGN	For ASSIGN, provide delivery ID or delivery name.

Table 5–1 Shipping Transaction Form/Public API Correlation

Ref	Function	STF Equivalent	Package. Procedure	API Action Codes	Data Requirements
5.2	Split delivery lines	Find window > Search for Lines > Enter delivery line number > Action: Split Line	WSH_ DELIVERY_ DETAILS_ PUB.SPLIT_ LINE	-	Provide split quantity.
5.3	Confirm actual shipped quantities	Find window > Search for Lines > Enter Shipped Quantity and add/change /delete data	WSH_ DELIVERY_ DETAILS_PUB. UPDATE_ SHIPPING_ ATTRIBUTES	UPDATE	-
5.4	Auto-create deliveries	Find window > Search for Lines > Enter criteria > Action: Auto-create Delivery	WSH_ DELIVERY_ DETAILS_PUB. AUTOCREATE _DELIVERIES	-	-
5.5	Auto-create deliveries and trips	Find window > Search for Lines > Enter criteria > Action: Auto-create Trip	WSH_ DELIVERY_ DETAILS_PUB. AUTOCREATE _DEL_TRIP	-	-
6.1	Create containers	Data Entry, LPN Data Entry > Enter data	WSH_ CONTAINER_ PUB.CREATE_ CONTAINER	-	Provide container item ID (prefix, base, and suffix)

Table 5–1 Shipping Transaction Form/Public API Correlation

Ref	Function	STF Equivalent	Package. Procedure	API Action Codes	Data Requirements
6.2	Update containers	Find window > Search for Lines/LPN > Add/ change/ delete data	WSH_ CONTAINER_ PUB.UPDATE_ CONTAINER	-	-
6.3	Pack and unpack delivery lines into and from containers	Find window > Search for Lines > Enter delivery line number > Select action > Select target LPN	WSH_ CONTAINER_ PUB. CONTAINER_ ACTION	PACK, UNPACK	For PACK, provide container ID or container name and delivery line ID.
6.4	Assign and unassign containers to and from deliveries	Find window > Search for LPN > Enter LPN > Select action	WSH_ CONTAINER_ PUB. CONTAINER_ ACTION	ASSIGN, UNASSIGN	-
6.5	Create containers and auto-pack	Find window > Search for Lines > Enter delivery line number > Action: Auto-pack	WSH_ CONTAINER_ PUB.AUTO_ PACK	-	Provide delivery line ID

Table 5–1 Shipping Transaction Form/Public API Correlation

Ref	Function	STF Equivalent	Package. Procedure	API Action Codes	Data Requirements
7.1	Create and update freight costs	Find window > Search for entity (Trip, Stop, Delivery, or Delivery Line) > Enter entity name> Action: Freight Cost > Enter or add/change /delete data	WSH_ FREIGHT_ COSTS_ PUB.CREATE_ UPDATE_ FREIGHT_ COST	CREATE, UPDATE	For trip, stop, delivery, and delivery line, provide the entity name or entity ID.
7.2	Validate freight costs	Find window > Search for entity (Trip, Stop, Delivery, or Delivery Line) > Enter entity name> Action: Freight Cost > Open Freight Name LOV and select one	WSH_ FREIGHT_ COSTS_PUB. VALIDATE_ FREIGHT_ COST_TYPE	-	-

Table 5–1 Shipping Transaction Form/Public API Correlation

Ref	Function	STF Equivalent	Package. Procedure	API Action Codes	Data Requirements
7.3	Delete freight costs	Find window > Search for entity (Trip, Stop, Delivery, or Delivery Line) > Enter entity name> Action: Freight Cost > Delete row	WSH_ FREIGHT_ COSTS_ PUB.DELETE_ FREIGHT_ COSTS	-	-

Sample Flow Scenarios

The scenarios show different paths to ship confirmation using APIs. Each step in the flows refers to a reference number (Ref) in the API Table:

- Scenario 1: Pick Release, Ship Confirm
- Scenario 2: Pick Release, Ship Confirm with Serial Numbers
- Scenario 3: Create Delivery, Auto-create Trip, Pick Release Trip
- Scenario 4: Create Trip, Stop, and Delivery; Assign Entities; Pack Items into Containers
- Scenario 5: Auto-create Delivery and Trip, Auto-pack Lines, Add Freight Costs

Figure 5–1 Shipping API Flow Scenario 1

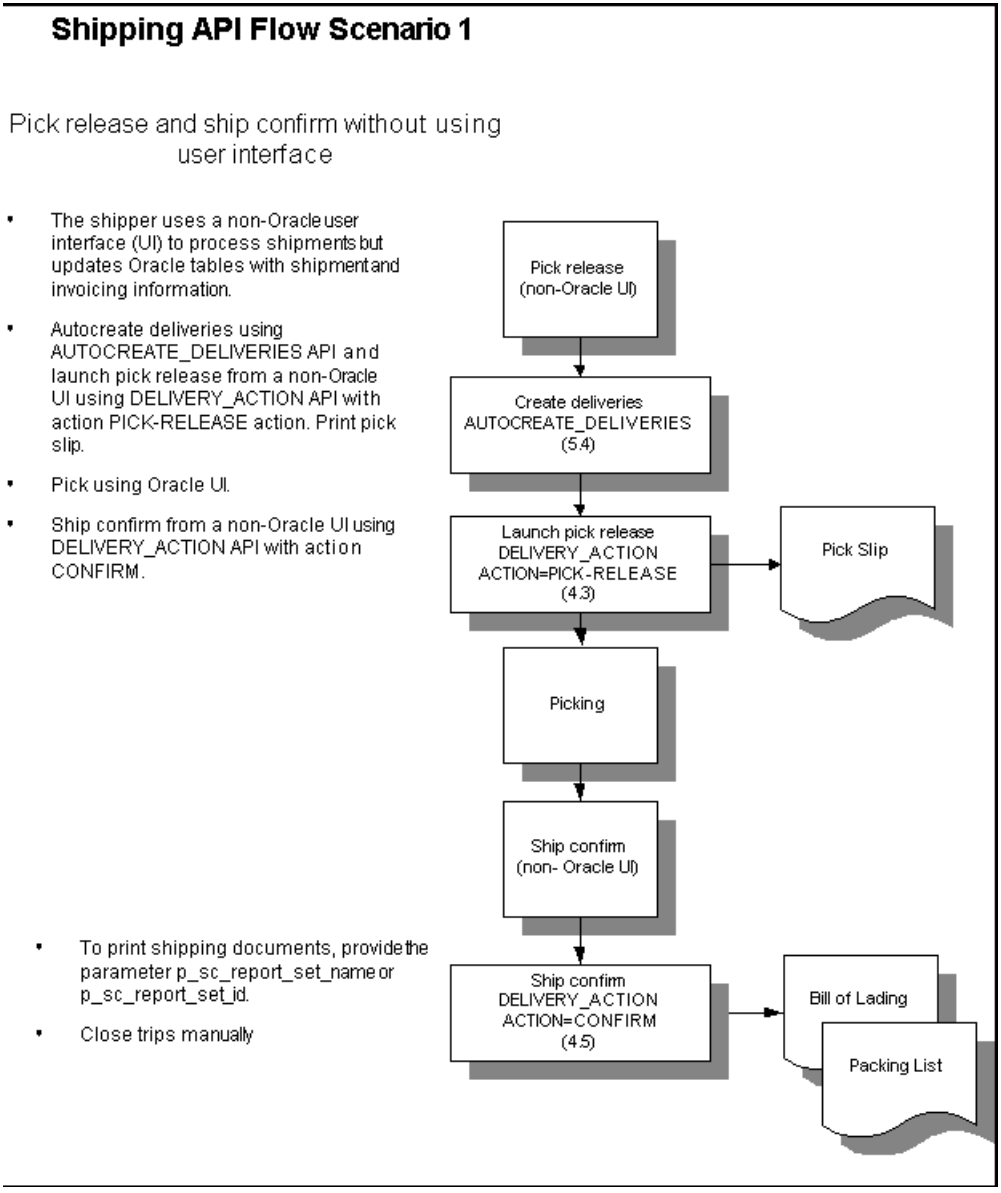


Figure 5–2 Shipping API Flow Scenario 2

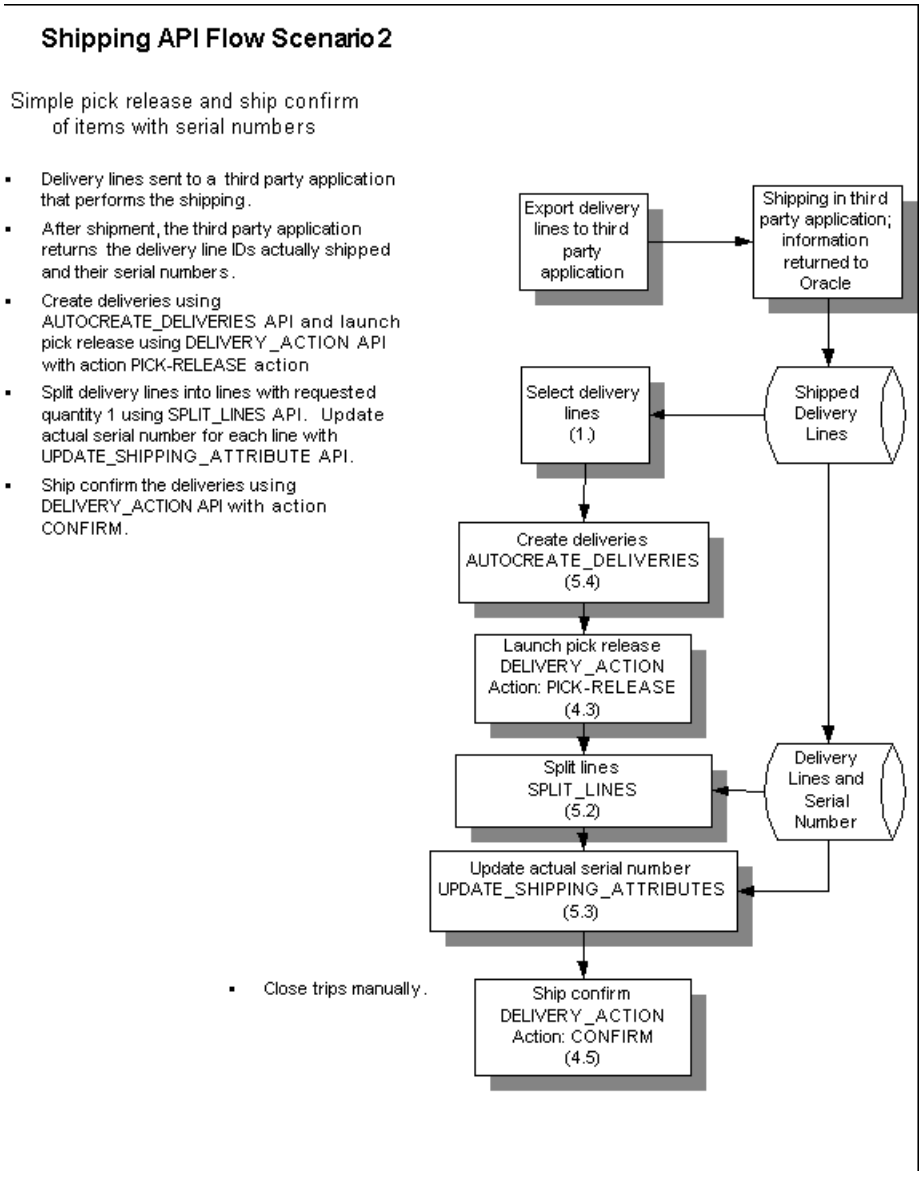


Figure 5–3 Shipping API Flow Scenario 3

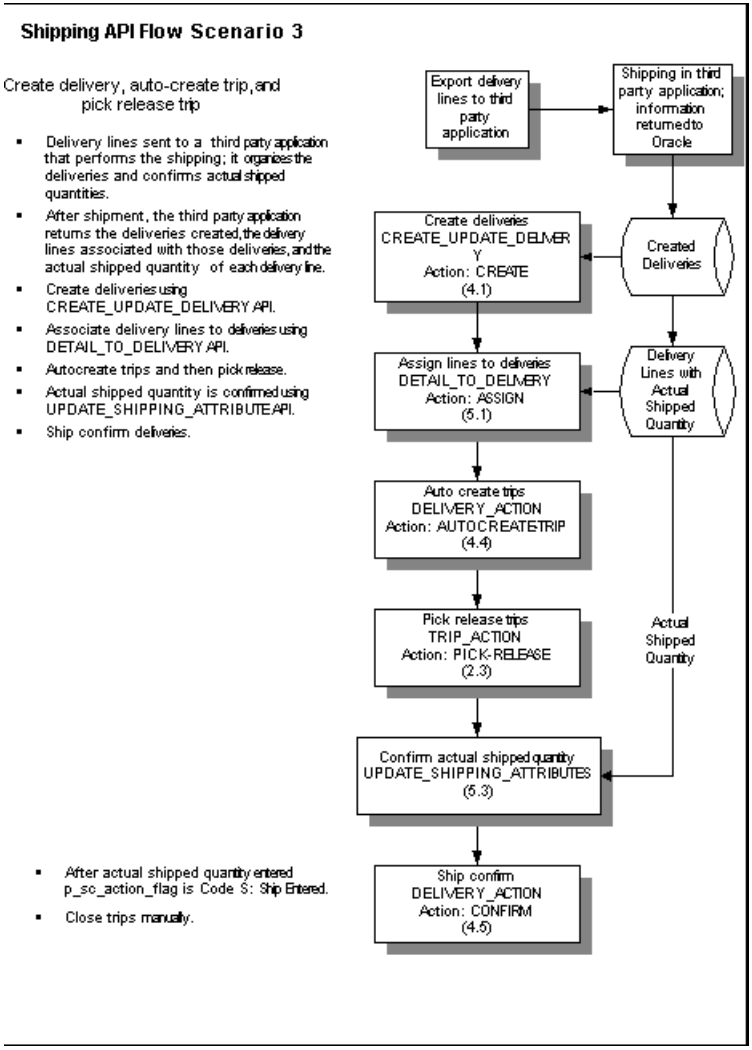


Figure 5–4 Shipping API Flow Scenario 4

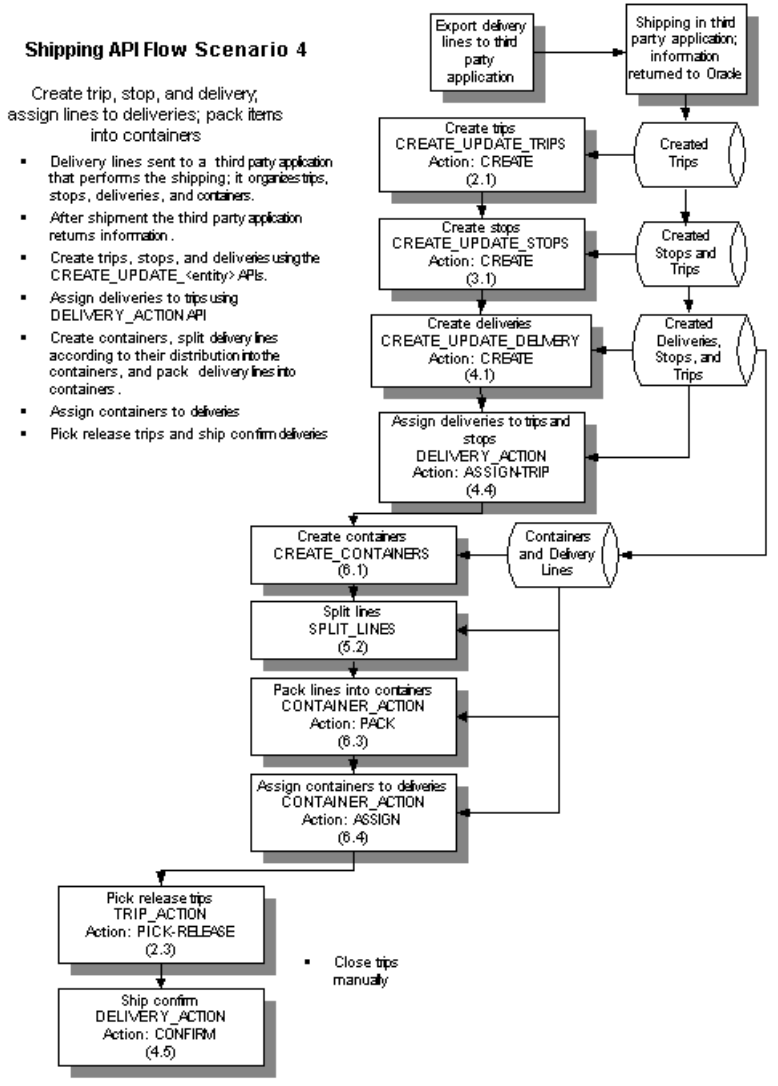
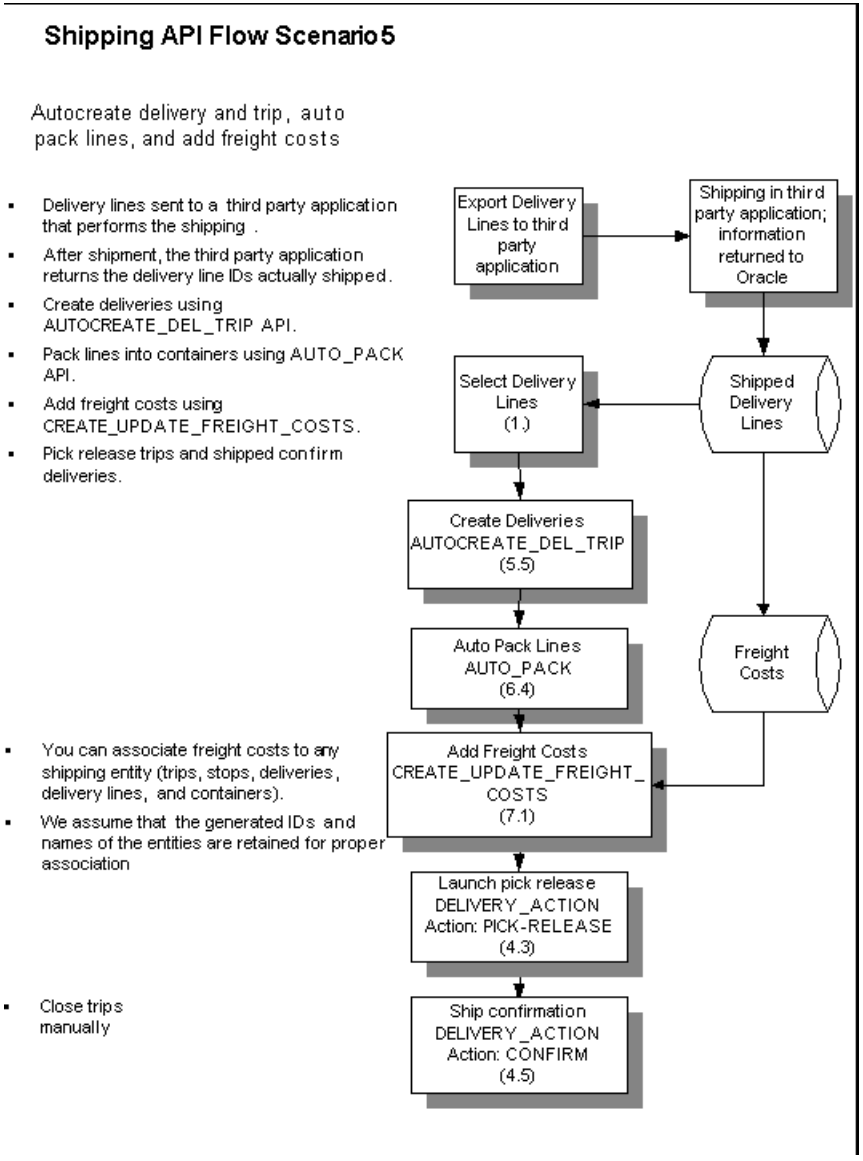


Figure 5–5 Shipping API Flow Scenario 5



API Package and Procedures Example

The following examples demonstrate two simple procedures from the same package that use the shipping public APIs. For more information on using the package, see the Script section that follows the Procedures section.

Package

```
Create or replace package WSH_SHIP_API as

procedure SHIP_CONFIRM_EXAMPLE1(
x_return_status     OUT          VARCHAR2,
x_msg_count         OUT          NUMBER,
x_msg_data          OUT          VARCHAR2);

procedure SHIP_CONFIRM_EXAMPLE2(
x_return_status     OUT          VARCHAR2,
x_msg_count         OUT          NUMBER,
x_msg_data          OUT          VARCHAR2);
END WSH_SHIP_API;
/
-- show errors package WSH_SHIP_API;
```

Procedures

```
Create or replace package body WSH_SHIP_API as
/*
Example 1:
This procedure can be used as an example on how to ship confirm a delivery
consisting of delivery details that have already been pick released and assigned
to a delivery.

Call WSH_DELIVERY_DETAILS_PUB.Update_Shipping_Attributes API to update the
corresponding delivery details to ship all quantities in the first delivery
detail; to back order all in the second; to stage all in the third delivery
detail.
Call WSH_FREIGHT_COSTS_PUB.Create_Update_Freight_Costs API to create freight
costs for the delivery that the details have been assigned to.
Call WSH_CONTAINER_PUB.Auto_Pack to pack the delivery lines into a container.
Call WSH_DELIVERIES_PUB.Delivery_Action  API to ship confirm the delivery.
*/
procedure SHIP_CONFIRM_EXAMPLE1(
           x_return_status           OUT            VARCHAR2,
           x_msg_count               OUT            NUMBER,
           x_msg_data                OUT            VARCHAR2) IS
```

```
/*
--Standard Parameters.
    p_api_version_number      NUMBER;
    init_msg_list             VARCHAR2(30);
    x_msg_details             VARCHAR2(3000);
    x_msg_summary             VARCHAR2(3000);
    p_validation_level        NUMBER;
    p_commit                  VARCHAR2(30);

--Parameters for WSH_DELIVERY_DETAILS_PUB.Update_Shipping_Attributes.
    source_code               VARCHAR2(15);
    changed_attributes        WSH_DELIVERY_DETAILS_PUB.ChangedAttributeTabType;

--Parameters for WSH_CONTAINER_PUB.Auto_Pack.
    p_entity_tab              WSH_UTIL_CORE.id_tab_type;
    p_entity_type             VARCHAR2(30);
    p_group_id_tab            WSH_UTIL_CORE.id_tab_type;
    p_pack_cont_flag          varchar2(30);
    x_cont_inst_tab           WSH_UTIL_CORE.id_tab_type;

--Parameters for WSH_FREIGHT_COSTS_PUB.Create_Update_Freight_Costs.
    action_code               VARCHAR2(15);
    pub_freight_costs         WSH_FREIGHT_COSTS_PUB.PubFreightCostRecType;
    freight_cost_id           NUMBER;

--Parameters for WSH_DELIVERIES_PUB.Delivery_Action.
    p_action_code             VARCHAR2(15);
    p_delivery_id             NUMBER;
    p_delivery_name           VARCHAR2(30);
    p_asg_trip_id             NUMBER;
    p_asg_trip_name           VARCHAR2(30);
    p_asg_pickup_stop_id      NUMBER;
    p_asg_pickup_loc_id       NUMBER;
    p_asg_pickup_loc_code     VARCHAR2(30);
    p_asg_pickup_arr_date     DATE;
    p_asg_pickup_dep_date     DATE;
    p_asg_dropoff_stop_id     NUMBER;
    p_asg_dropoff_loc_id      NUMBER;
    p_asg_dropoff_loc_code    VARCHAR2(30);
    p_asg_dropoff_arr_date    DATE;
    p_asg_dropoff_dep_date    DATE;
    p_sc_action_flag          VARCHAR2(10);
    p_sc_intransit_flag       VARCHAR2(10);
    p_sc_close_trip_flag      VARCHAR2(10);
    p_sc_create_bol_flag      VARCHAR2(10);
```

```
    p_sc_stage_del_flag       VARCHAR2(10);
    p_sc_trip_ship_method     VARCHAR2(30);
    p_sc_actual_dep_date      VARCHAR2(30);
    p_sc_report_set_id        NUMBER;
    p_sc_report_set_name      VARCHAR2(60);
    p_wv_override_flag        VARCHAR2(10);
    x_trip_id                 VARCHAR2(30);
    x_trip_name               VARCHAR2(30);

/*Handle exceptions*/
    fail_api                  EXCEPTION;

BEGIN
/* Initialize return status*/
    x_return_status := WSH_UTIL_CORE.G_RET_STS_SUCCESS;

/* Call this procedure to initialize applications parameters. To determine
parameter values, refer to the Application Paramater Initialization section of
this chapter. */
FND_GLOBAL.APPS_INITIALIZE(user_id => 1001594
                      ,resp_id =>52892
                      ,resp_appl_id =>660);

/* Values for updating delivery details to ship all quantities in the first
line, stage everything in the second line, and back order all in the third. It
is assumed that the user knows the quantities in each line.
*/
    source_code := 'OE'; -- The only source code that should be used by the API
    changed_attributes(1).delivery_detail_id := 13431; -- Ship All quantities in
    this detail.
    changed_attributes(1).shipped_quantity := 1;
    changed_attributes(2).source_line_id := 13432; -- Back Order All in this
                                                   -- detail.
    changed_attributes(2).shipped_quantity := 0;
    changed_attributes(2).cycle_count_quantity := 2;
    changed_attributes(3).source_line_id := 13433; -- Stage All in this detail.
    changed_attributes(3).shipped_quantity := 0;
    changed_attributes(3).cycle_count_quantity := 0;

--Call to WSH_DELIVERY_DETAILS_PUB.Update_Shipping_Attributes.
WSH_DELIVERY_DETAILS_PUB.Update_Shipping_Attributes(
    p_api_version_number      => 1.0,
    p_init_msg_list           => init_msg_list,
    p_commit                  => p_commit,
```

```
    x_return_status           => x_return_status,
    x_msg_count               => x_msg_count,
    x_msg_data                => x_msg_data,
    p_changed_attributes      => changed_attributes,
    p_source_code             => source_code);
    if (x_return_status <> WSH_UTIL_CORE.G_RET_STS_SUCCESS) then
       raise fail_api;
    end if;

/* Values for creating freight costs for the delivery created for the above
delivery details. The delivery can be queried for the respective delivery detail
through wsh_delivery_assignments.
*/

    pub_freight_costs.freight_cost_type_id    := 1;
    pub_freight_costs.unit_amount             := 20;
    pub_freight_costs.currency_code           := 'USD';
    pub_freight_costs.delivery_id             := 5341;


--Call to WSH_FREIGHT_COSTS_PUB.Create_Update_Freight_Costs.
WSH_FREIGHT_COSTS_PUB.Create_Update_Freight_Costs(
    p_api_version_number      => 1.0,
    p_init_msg_list           => init_msg_list,
    p_commit                  => p_commit,
    x_return_status           => x_return_status,
    x_msg_count               => x_msg_count,
    x_msg_data                => x_msg_data,
    p_pub_freight_costs       => pub_freight_costs,
    p_action_code             => 'CREATE',
    x_freight_cost_id         => freight_cost_id);
    if (x_return_status <> WSH_UTIL_CORE.G_RET_STS_SUCCESS) then
       raise fail_api;
    end if;
/* Values for autopacking the delivery details to a container.
*/
    p_entity_tab(1) := 13431;
    p_entity_tab(2) := 13432;
    p_entity_tab(3) := 13434;

--Call to WSH_CONTAINER_PUB.Auto_Pack
WSH_CONTAINER_PUB.Auto_Pack(
    p_api_version        => 1.0,
    p_init_msg_list      => init_msg_list,
    p_commit             => p_commit,
    p_validation_level   => p_validation_level,
```

```
    x_return_status      => x_return_status,
    x_msg_count          => x_msg_count,
    x_msg_data           => x_msg_data,
    p_entity_tab         => p_entity_tab,
    p_entity_type        => 'L',
    p_group_id_tab       => p_group_id_tab,
    p_pack_cont_flag     => p_pack_cont_flag,
    x_cont_inst_tab      => x_cont_inst_tab);
    if (x_return_status <> WSH_UTIL_CORE.G_RET_STS_SUCCESS) then
         raise fail_api;
    end if;

/* Values for Ship Confirming the delivery.
*/
    p_action_code         := 'CONFIRM'; -- The action code for ship confirm
    p_delivery_id         := 5341; -- The delivery that needs to be confirmed
    p_delivery_name       := '5341'; -- The delivery name,
    p_sc_action_flag      := 'S';  -- Ship entered quantity.
    p_sc_intransit_flag   := 'Y'; -- In transit flag is set to 'Y' closes the
                                  -- pickup stop and sets the delivery in
                                  -- transit.
    p_sc_close_trip_flag  := 'Y'; -- Close the trip after ship confirm
    p_sc_trip_ship_method := 'GROUND'; -- The ship method code

-- Call to WSH_DELIVERIES_PUB.Delivery_Action.
WSH_DELIVERIES_PUB.Delivery_Action(
    p_api_version_number      => 1.0,
    p_init_msg_list           => init_msg_list,
    x_return_status           => x_return_status,
    x_msg_count               => x_msg_count,
    x_msg_data                => x_msg_data,
    p_action_code             => p_action_code,
    p_delivery_id             => p_delivery_id,
    p_delivery_name           => p_delivery_name,
    p_asg_trip_id             => p_asg_trip_id,
    p_asg_trip_name           => p_asg_trip_name,
    p_asg_pickup_stop_id      => p_asg_pickup_stop_id,
    p_asg_pickup_loc_id       => p_asg_pickup_loc_id,
    p_asg_pickup_loc_code     => p_asg_pickup_loc_code,
    p_asg_pickup_arr_date     => p_asg_pickup_arr_date,
    p_asg_pickup_dep_date     => p_asg_pickup_dep_date,
    p_asg_dropoff_stop_id     => p_asg_dropoff_stop_id,
    p_asg_dropoff_loc_id      => p_asg_dropoff_loc_id,
    p_asg_dropoff_loc_code    => p_asg_dropoff_loc_code,
    p_asg_dropoff_arr_date    => p_asg_dropoff_arr_date,
```

```
    p_asg_dropoff_dep_date    => p_asg_dropoff_dep_date,
    p_sc_action_flag          => p_sc_action_flag,
    p_sc_intransit_flag       => p_sc_intransit_flag,
    p_sc_close_trip_flag      => p_sc_close_trip_flag,
    p_sc_create_bol_flag      => p_sc_create_bol_flag,
    p_sc_stage_del_flag       => p_sc_stage_del_flag,
    p_sc_trip_ship_method     => p_sc_trip_ship_method,
    p_sc_actual_dep_date      => p_sc_actual_dep_date,
    p_sc_report_set_id        => p_sc_report_set_id,
    p_sc_report_set_name      => p_sc_report_set_name,
    p_wv_override_flag        => p_wv_override_flag,
    x_trip_id                 => x_trip_id,
    x_trip_name               => x_trip_name);

    if (x_return_status <> WSH_UTIL_CORE.G_RET_STS_SUCCESS) then
        raise fail_api;
    end if;

    exception

    when fail_api then
    WSH_UTIL_CORE.get_messages('Y', x_msg_summary, x_msg_details, x_msg_count);
    if x_msg_count > 1 then
        x_msg_data := x_msg_summary || x_msg_details;
    else
        x_msg_data := x_msg_summary;
    end if;
END SHIP_CONFIRM_EXAMPLE1;

/** Example 2:
This procedure can be used as an example on how to ship confirm delivery details
that have originally not been assigned to a delivery.

Call WSH_DELIVERIES_PUB.CREATE_UPDATE_DELIVERY to create a new delivery.
Call WSH_DELIVERY_DETAILS_PUB.Detail_to_Delivery to assign the delivery details
to the new delivery.
Call WSH_DELIVERIES_PUB.Delivery_Action to ship confim.
**/
procedure SHIP_CONFIRM_EXAMPLE2(
    x_return_status                 OUT     VARCHAR2,
    x_msg_count                     OUT     NUMBER,
    x_msg_data                      OUT     VARCHAR2) IS

-- Standard Parameters.
        p_api_version_number        NUMBER;
```

```
        init_msg_list                VARCHAR2(30);
        x_msg_details                VARCHAR2(3000);
        x_msg_summary                VARCHAR2(3000);
        p_validation_level           NUMBER;
        commit                       VARCHAR2(30);

-- Parameters for WSH_DELIVERIES_PUB.CREATE_UPDATE_DELIVERY
        action_code                  VARCHAR2(15);
        delivery_id                  NUMBER;
        delivery_info                WSH_DELIVERIES_PUB.Delivery_Pub_Rec_Type;
        name                         VARCHAR2(30);

-- Parameters for WSH_DELIVERY_DETAILS_PUB.Detail_to_Delivery
       p_delivery_id                 NUMBER;
       delivery_name                 VARCHAR2(30);
       p_TabOfDelDets                WSH_DELIVERY_DETAILS_PUB.id_tab_type;
       p_action                      VARCHAR2(30);

-- Parameters for WSH_DELIVERIES_PUB.Delivery_Action.
       p_action_code                 VARCHAR2(15);
       p_delivery_id                 NUMBER;
       p_delivery_name   VARCHAR2(30);
       p_asg_trip_id                 NUMBER;
       p_asg_trip_name               VARCHAR2(30);
       p_asg_pickup_stop_id          NUMBER;
       p_asg_pickup_loc_id           NUMBER;
       p_asg_pickup_loc_code         VARCHAR2(30);
       p_asg_pickup_arr_date         DATE;
       p_asg_pickup_dep_date         DATE;
       p_asg_dropoff_stop_id         NUMBER;
       p_asg_dropoff_loc_id          NUMBER;
       p_asg_dropoff_loc_code        VARCHAR2(30);
       p_asg_dropoff_arr_date        DATE;
       p_asg_dropoff_dep_date        DATE;
       p_sc_action_flag              VARCHAR2(10);
       p_sc_intransit_flag           VARCHAR2(10);
       p_sc_close_trip_flag          VARCHAR2(10);
       p_sc_create_bol_flag          VARCHAR2(10);
       p_sc_stage_del_flag           VARCHAR2(10);
       p_sc_trip_ship_method         VARCHAR2(30);
       p_sc_actual_dep_date          VARCHAR2(30);
       p_sc_report_set_id            NUMBER;
       p_sc_report_set_name          VARCHAR2(60);
       p_wv_override_flag            VARCHAR2(10);
       x_trip_id                     VARCHAR2(30);
```

```
      x_trip_name                    VARCHAR2(30);
/*Handle exceptions*/
       fail_api                      EXCEPTION;

BEGIN
  -- Initialize return status
    x_return_status := WSH_UTIL_CORE.G_RET_STS_SUCCESS;

-- Values for WSH_DELIVERIES_PUB.CREATE_UPDATE_DELIVERY
-- Create a new delivery for the following
    delivery_info.initial_pickup_location_id     := 204;
    delivery_info.ultimate_dropoff_location_id   := 840;
    delivery_info.gross_weight                   := 10;
    delivery_info.ship_method_code               := 'UPS';
    p_action_code                                := 'CREATE';

-- Call to WSH_DELIVERIES_PUB.CREATE_UPDATE_DELIVERY
WSH_DELIVERIES_PUB.CREATE_UPDATE_DELIVERY(
    p_api_version_number               => 1.0,
    p_init_msg_list                    => init_msg_list,
    x_return_status                    => return_status,
    x_msg_count                        => msg_count,
    x_msg_data                         => msg_data,
    p_action_code                      => p_action_code,
    p_delivery_info                    => delivery_info,
    p_delivery_name                    => delivery_name,
    x_delivery_id                      => delivery_id,
    x_name                             => name );

    if (x_return_status <> WSH_UTIL_CORE.G_RET_STS_SUCCESS) then
         raise fail_api;
    end if;

    p_delivery_id                      := delivery_id;
    pub_freight_costs.delivery_id      := delivery_id;

-- Values for WSH_DELIVERY_DETAILS_PUB.Detail_to_Delivery
-- Call Detail_to_Delivery with an action code of ASSIGN to assign details to a
-- delivery.
    p_TabOfDelDets(1)                  := 13463;
    p_TabOfDelDets(2)                  := 13464;
    p_action                           := 'ASSIGN';

-- Call to WSH_DELIVERY_DETAILS_PUB.Detail_to_Delivery.
 WSH_DELIVERY_DETAILS_PUB.Detail_to_Delivery(
```

```
    p_api_version                    => 1.0,
    p_init_msg_list                  => init_msg_list,
    p_commit                         => commit,
    p_validation_level               => p_validation_level,
    x_return_status                  => return_status,
    x_msg_count                      => msg_count,
    x_msg_data                       => msg_data,
    p_TabOfDelDets                   => p_TabOfDelDets,
    p_action                         => p_action,
    p_delivery_id                    => p_delivery_id,
    p_delivery_name                  => delivery_name);

    if (x_return_status <> WSH_UTIL_CORE.G_RET_STS_SUCCESS) then
        raise fail_api;
    end if;

-- Values for Ship Confirming the delivery.
    p_action_code          := 'CONFIRM'; -- The action code for ship confirm
    p_delivery_id          := 5341; -- The delivery that needs to be confirmed
    p_delivery_name        := '5341'; -- The delivery name,
    p_sc_action_flag       := 'S';   -- Ship entered quantity.
    p_sc_intransit_flag    := 'Y';   -- In transit flag is set to 'Y' closes
                                  the
                                     -- pickup stop and sets the delivery in
                                     -- transit.
    p_sc_close_trip_flag   := 'Y'; -- Close the trip after ship confirm
    p_sc_trip_ship_method  := 'UPS'; -- The ship method code

-- Call to WSH_DELIVERIES_PUB.Delivery_Action.
WSH_DELIVERIES_PUB.Delivery_Action(
    p_api_version_number         => 1.0,
    p_init_msg_list              => init_msg_list,
    x_return_status              => x_return_status,
    x_msg_count                  => x_msg_count,
    p_action_code                => p_action_code,
    p_delivery_id                => p_delivery_id,
    p_delivery_name              => p_delivery_name,
    p_asg_trip_id                => p_asg_trip_id,
    p_asg_trip_name              => p_asg_trip_name,
    p_asg_pickup_stop_id         => p_asg_pickup_stop_id,
    p_asg_pickup_loc_id          => p_asg_pickup_loc_id,
    p_asg_pickup_loc_code        => p_asg_pickup_loc_code,
    p_asg_pickup_arr_date        => p_asg_pickup_arr_date,
    p_asg_pickup_dep_date        => p_asg_pickup_dep_date,
    p_asg_dropoff_stop_id        => p_asg_dropoff_stop_id,
```

```
    p_asg_dropoff_loc_id          => p_asg_dropoff_loc_id,
    p_asg_dropoff_loc_code        => p_asg_dropoff_loc_code,
    p_asg_dropoff_arr_date        => p_asg_dropoff_arr_date,
    p_asg_dropoff_dep_date        => p_asg_dropoff_dep_date,
    p_sc_action_flag              => p_sc_action_flag,
    p_sc_intransit_flag           => p_sc_intransit_flag,
    p_sc_close_trip_flag          => p_sc_close_trip_flag,
    p_sc_create_bol_flag          => p_sc_create_bol_flag,
    p_sc_stage_del_flag           => p_sc_stage_del_flag,
    p_sc_trip_ship_method         => p_sc_trip_ship_method,
    p_sc_actual_dep_date          => p_sc_actual_dep_date,
    p_sc_report_set_id            => p_sc_report_set_id,
    p_sc_report_set_name          => p_sc_report_set_name,
    p_wv_override_flag            => p_wv_override_flag,
    x_trip_id                     => x_trip_id,
    x_trip_name                   => x_trip_name);

    if (x_return_status <> WSH_UTIL_CORE.G_RET_STS_SUCCESS) then
         raise fail_api;
    end if;

    exception

    when fail_api then
    WSH_UTIL_CORE.get_messages('Y', x_msg_summary, x_msg_details, x_msg_count);
    if x_msg_count > 1 then
         x_msg_data := x_msg_summary || x_msg_details;
    else
         x_msg_data := x_msg_summary;
    end if;

    END SHIP_CONFIRM_EXAMPLE2;

    END WSH_SHIP_API;
    /
    --show errors package body WSH_SHIP_API;
    --COMMIT;
```

Script

```
set serveroutput on

Declare

x_return_status       VARCHAR2(15);
```

```
x_msg_count           NUMBER;
x_msg_data            VARCHAR2(3000);

Begin

WSH_SHIP_API. SHIP_CONFIRM_EXAMPLE1(
x_return_status       => x_return_status;
x_msg_count           => x_msg_count;
x_msg_data            => x_msg_data);

dbms_output.put_line('The return status: '|| x_return_status);
dbms_output.put_line(x_msg_data);

End;
```

Actions, APIs, and Parameters

This section specifies the APIs to use to perform actions on shipping entities and lists the parameters that the APIs use.

Each time you call an API, include the parameters listed in the column Required Parameters and, in addition, include the standard parameters p_api_version_number, p_init_msg_list, p_commit, p_validation_level, x_return_status, x_msg_count, and x_msg_data.

Some of the parameters may have default values in their API signatures. Refer to the Record Parameter Description section for each API to see if a parameter has a default value.

Some of the parameters are of type Table or Record. Refer to the Record Parameter Description section for each API to see table and record definitions.

Trips

Table 5–2 Trip Actions, APIs, and Parameters

Action	API	Required Parameters	Optional Parameters	Comments
Plan	WSH_TRIPS_PUB.Trip_Action	p_action_code = PLAN p_trip_id or p_trip_name	-	-
Unplan	WSH_TRIPS_PUB.Trip_Action	p_action_code = UNPLAN p_trip_id or p_trip_name	-	-
Launch pick release	WSH_TRIPS_PUB.Trip_Action	p_action_code = PICK-RELEASE p_trip_id or p_trip_name	-	-
Calculate weight and volume	WSH_TRIPS_PUB.Trip_Action	p_action_code = WT-VOL p_trip_id or p_trip_name	p_wv_override_flag	-

Table 5–2 Trip Actions, APIs, and Parameters

Action	API	Required Parameters	Optional Parameters	Comments
Delete	WSH_TRIPS_PUB.Trip_Action	p_action_code = DELETE p_trip_id or p_trip_name	-	-
Create	WSH_TRIPS_PUB.Create_Update_Trip	p_action_code = CREATE p_trip_info x_trip_id x_trip_name	p_trip_name	-
Update	WSH_TRIPS_PUB.Create_Update_Trip	p_action_code = UPDATE p_trip_info x_trip_id x_trip_name	p_trip_name	For p_trip_info, pass only the attributes that need update.

Stops

Table 5–3 Stop Actions, APIs, and Parameters

Action	API	Required Parameters	Optional Parameters	Comments
Plan	WSH_TRIP_STOPS_PUB.Stop_Action	p_action_code = PLAN p_stop_id	-	You can substitute all of the following for p_stop_id: p_trip_name or p_trip_id p_stop_location_code or p_stop_location_id p_planned_dep_date

Table 5–3 Stop Actions, APIs, and Parameters

Action	API	Required Parameters	Optional Parameters	Comments
Unplan	WSH_TRIP_STOPS_PUB.Stop_Action	p_action_code = UNPLAN p_stop_id	-	You can substitute all of the following for p_stop_id: p_trip_name or p_trip_id p_stop_location_code or p_stop_location_id p_planned_dep_date
Update Status - Arrive	WSH_TRIP_STOPS_PUB.Stop_Action	p_action_code = ARRIVE p_stop_id	p_actual_date p_defer_interface_flag	You can substitute all of the following for p_stop_id: p_trip_name or p_trip_id p_stop_location_code or p_stop_location_id p_planned_dep_date
Update Status - Close	WSH_TRIP_STOPS_PUB.Stop_Action	p_action_code = CLOSE p_stop_id	p_actual_date p_defer_interface_flag	You can substitute all of the following for p_stop_id: p_trip_name or p_trip_id p_stop_location_code or p_stop_location_id p_planned_dep_date

Table 5–3 Stop Actions, APIs, and Parameters

Action	API	Required Parameters	Optional Parameters	Comments
Launch pick release	WSH_TRIP_STOPS_PUB.Stop_Action	p_action_code = PICK-RELEASE p_stop_id	-	You can substitute all of the following for p_stop_id: p_trip_name or p_trip_id p_stop_location_code or p_stop_location_id p_planned_dep_date
Delete	WSH_TRIP_STOPS_PUB.Stop_Action	p_action_code = DELETE p_stop_id	-	You can substitute all of the following for p_stop_id: p_trip_name or p_trip_id p_stop_location_code or p_stop_location_id p_planned_dep_date
Create	WSH_TRIP_STOPS_PUB.Create_Update_Stop	p_action_code = CREATE p_stop_info x_stop_id	-	-
Update	WSH_TRIP_STOPS_PUB.Create_Update_Stop	p_action_code = UPDATE p_stop_info x_stop_id	p_trip_id p_trip_name p_stop_location_id p_stop_location_code p_planned_dep_date	For p_stop_info, pass only the attributes that need update.

Deliveries

Table 5–4 Delivery Actions, APIs, and Parameters

Action	API	Required Parameters	Optional Parameters	Comments
Plan	wsh_deliveries_pub.delivery_action	p_action_code = PLAN p_delivery_id or p_delivery_name x_trip_id x_trip_name	-	-
Unplan	wsh_deliveries_pub.delivery_action	p_action_code = UNPLAN p_delivery_id or p_delivery_name x_trip_id x_trip_name	-	-
Ship confirm	wsh_deliveries_pub.delivery_action	p_action_code = CONFIRM p_delivery_id or p_delivery_name x_trip_id x_trip_name	p_sc_action_flag p_sc_intransit_flag p_sc_close_trip_flag p_sc_create_bol p_sc_stage_del_flag p_sc_trip_ship_method p_sc_actual_dep_date p_sc_report_set_id p_sc_report_set_name p_sc_defer_interface	-

Table 5–4 Delivery Actions, APIs, and Parameters

Action	API	Required Parameters	Optional Parameters	Comments
Reopen	wsh_ deliveries_ pub. delivery_ action	p_action_code = RE-OPEN p_delivery_id or p_delivery_ name x_trip_id x_trip_name	-	-
Close	wsh_ deliveries_ pub. delivery_ action	p_action_code = CLOSE p_delivery_id or p_delivery_ name x_trip_id x_trip_name	-	-

Table 5–4 Delivery Actions, APIs, and Parameters

Action	API	Required Parameters	Optional Parameters	Comments
Assign to trip	wsh_ deliveries_ pub. delivery_ action	p_action_code = ASSIGN-TRIP p_delivery_id or p_delivery_ name p_asg_trip_id or p_asg_trip_ name x_trip_id x_trip_name	p_asg_pickup_ stop_id p_asg_pickup_ loc_id p_asg_pickup_ stop_seq p_asg_pickup_ loc_code p_asg_pickup_ arr_date p_asg_pickup_ dep_date p_asg_dropoff_ stop_id p_asg_dropoff_ loc_id p_asg_dropoff_ stop_seq p_asg_dropoff_ loc_code p_asg_dropoff_ arr_date p_asg_dropoff_ dep_date	-
Unassign from trip	wsh_ deliveries_ pub. delivery_ action	p_action_code = UNASSIGN-TRIP p_delivery_id or p_delivery_ name x_trip_id x_trip_name	-	-

Table 5–4 Delivery Actions, APIs, and Parameters

Action	API	Required Parameters	Optional Parameters	Comments
Auto-create trip	wsh_ deliveries_ pub. delivery_ action	p_action_code = AUTOCREATE - TRIP p_delivery_id or p_delivery_ name x_trip_id x_trip_name	-	-
Calculate weight and volume	wsh_ deliveries_ pub. delivery_ action	p_action_code = WT-VOL p_delivery_id or p_delivery_ name x_trip_id x_trip_name	p_wv_ override_flag	-
Launch pick release	wsh_ deliveries_ pub. delivery_ action	p_action_code = PICK-RELEASE p_delivery_id or p_delivery_ name x_trip_id x_trip_name	-	-
Delete	wsh_ deliveries_ pub. delivery_ action	p_action_code = DELETE p_delivery_id or p_delivery_ name x_trip_id x_trip_name	-	-

Table 5–4 Delivery Actions, APIs, and Parameters

Action	API	Required Parameters	Optional Parameters	Comments
Create	wsh_ deliveries_ pub. create_ update_ delivery	p_action_code = CREATE p_delivery_info x_delivery_id x_name	p_delivery_ name	-
Update	wsh_ deliveries_ pub. create_ update_ delivery	p_action_code = UPDATE p_delivery_info x_delivery_id x_name	p_delivery_ name	For p_delivery_ info, pass only the attributes that need update.
Auto-pack	WSH_ CONTAINER _PUB.Auto_ Pack	p_entity_tab p_entity_type p_group_id_tab p_pack_cont_ flag x_cont_inst_tab	-	-

Delivery Details

Table 5–5 Delivery Detail Actions, APIs, and Parameters

Action	API	Required Parameters	Optional Parameters	Comments
Assign to delivery	wsh_ delivery_ details_pub. detail_to_ delivery	p_ TabOfDelDets p_action = ASSIGN, p_delivery_id p_delivery_ name	-	-

Table 5–5 Delivery Detail Actions, APIs, and Parameters

Action	API	Required Parameters	Optional Parameters	Comments
Unassign from delivery	wsh_ delivery_ details_pub. detail_to_ delivery	p_ TabOfDelDets p_action = UNASSIGN p_delivery_id p_delivery_ name	-	-
Split line	wsh_ delivery_ details_pub. split_line	p_from_detail_ id x_split_ quantity x_new_detail_ id x_split_ quantity2	-	-
Update	wsh_ delivery_ details_pub. Update_ Shipping_ Attributes	p_changed_ attributes p_source_code	p_container_ flag	For p_changed_ attributes, pass only the attributes that need update.
Autocreate delivery	wsh_ delivery_ details_pub. Autocreate_ Deliveries	p_line_rows x_del_rows	-	-
Autocreate trip	wsh_ delivery_ details_pub. Autocreate_ del_trip	p_line_rows x_del_rows x_trip_id x_trip_name	-	-

Table 5–5 Delivery Detail Actions, APIs, and Parameters

Action	API	Required Parameters	Optional Parameters	Comments
Pack into a container	WSH_ CONTAINER _PUB. Container_ Actions	p_detail_tab p_action_code =PACK p_container_ name or p_ cont_instance_ id	p_container_ flag p_delivery_flag	-
Unpack from a container	WSH_ CONTAINER _PUB. Container_ Actions	p_detail_tab p_action_code =UNPACK p_container_ name or p_ cont_instance_ id	p_container_ flag p_delivery_flag	-
Auto-pack	WSH_ CONTAINER _PUB.Auto_ Pack	p_entity_tab p_entity_type p_group_id_tab p_pack_cont_ flag x_cont_inst_tab	-	-

Table 5–5 Delivery Detail Actions, APIs, and Parameters

Action	API	Required Parameters	Optional Parameters	Comments
Create container	WSH_ CONTAINER _PUB.Create_ Containers	p_container_ item_id p_container_ item_name p_container_ item_seg p_ organization_id p_ organization_ code p_name_prefix p_name_suffix p_base_number p_num_digits p_quantity p_container_ name x_container_ids	-	-
Update container	WSH_ CONTAINER _PUB. Update_ Container	p_container_rec	-	For p_ container_rec, pass only the attributes that need update.
Assign container to a delivery	WSH_ CONTAINER _ PUB.Contain er_Actions	p_detail_tab p_action_code = ASSIGN p_delivery_id or p_delivery_ name	p_container_ flag p_delivery_flag	-

Table 5–5 Delivery Detail Actions, APIs, and Parameters

Action	API	Required Parameters	Optional Parameters	Comments
Unassign container from a delivery	WSH_ CONTAINER _ PUB.Container_Actions	p_detail_tab p_action_code = UNASSIGN p_delivery_id or p_delivery_ name	p_container_ flag p_delivery_flag	-

Application Parameter Initialization

In your scripts that call Public APIs, include a call to fnd_global.apps_initialize immediately after the BEGIN. The call syntax is

```
fnd_global.apps_initialize(user_id => l_user_id,
                           resp_id => l_resp_id,
                           resp_appl_id => l_resp_appl_id,
                           security_group_id => l_security_group_id);
```

Finding Variable Values

To find the values for the variables, perform the following process:

- Navigate to the Transaction form.
- On the menu bar, navigate Help > Diagnostics > Examine; a window pops-up.
- In Block, enter $PROFILES$
- In Field, enter USER_ID and press Tab. Use the value in Value for l_user_id.
- In Field, enter RESP_ID and press Tab. Use the value in Value for l_resp_id.
- In Field, enter RESP_APPL_ID and press Tab. Use the value in Value for l_resp_appl_id.
- In Field, enter SECURITY_GROUP_ID and press Tab. Use the value in Value for l_security_group_id.

Trip Public Application Program Interface

The Trip Public Application Program Interface (API) is a public API that consists of the following two procedures in package **WSH_TRIPS_PUB**:

Create_Update_Trip: Enables you to create a new trip record and update an existing trip record.

Trip_Action: Enables you to perform certain actions on a trip.

This section describes how to use the Trip Public API and how it functions in Oracle Shipping Execution.

Create_Update_Trip API Features

The Create_Update_Trip API has the following features.

The Create_Update_Trip procedure enables you to create a new trip record or update an existing trip record in the WSH_TRIPS table. The TRIP_ID, NAME and return status of a new trip are passed as OUT parameters, while the trip NAME of an existing trip for update is passed as an IN parameter.

Functional Overview

This API creates a new trip record in WSH_TRIPS as specified by IN parameter p_action_code value CREATE. It inserts the trip information into WSH_TRIPS and returns the TRIP_ID and NAME of the new trip. It also updates an existing trip record in WSH_TRIPS as specified by IN parameter p_action_code value UPDATE. The NAME of the trip being updated is passed through IN parameter p_trip_name.

The API validates trip information such as Trip Name, Arrive After Trip Name, and Ship Method before performing the actions of creating or updating a trip record. It also checks that the insert or update statements were successful, and if not returns an error.

Procedure Parameter Descriptions

WSH_TRIPS_PUB.CREATE_UPDATE_TRIP

The following chart describes all parameters used by the public procedure WSH_TRIPS_PUB.CREATE_UPDATE_TRIP. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–6 WSH_TRIPS_PUB.CREATE_UPDATE_TRIP Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_action_code	IN	Varchar2	x
p_trip_info	IN OUT	Record	x
p_trip_name	IN	Varchar2	-
x_trip_id	OUT	Number	-
x_trip_name	OUT	Varchar2	-

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count
Indicates number of error messages API has encountered.

x_msg_data
Returns error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_action_code
Specifies whether API should create a new trip or update existing trip information based on its values CREATE or UPDATE.

p_trip_info
Attributes of the trip entity of type Trip_Pub_Rec_Type. These attributes are inserted/updated in WSH_TRIPS. Definition of Trip_Pub_Rec_Type follows.

p_trip_name
IN parameter to specify the Name of trip to be updated.

Default Value: FND_API.G_MISS_CHAR

x_trip_id
Trip ID of new trip being created.

x_trip_name
Name of new trip being created.

Record Parameter Descriptions

TRIP_PUB_REC_TYPE RECORD DEFINITION

To encapsulate WSH_TRIPS table definition and Value column equivalents for ID columns in a PL/SQL record, define TRIP_PUB_REC_TYPE to pass trip information to the Create_Update_Trip routine.

Table 5–7 TRIP_PUB_REC_TYPE Record Definition

Attribute	Type	Default Value
trip_id	Number	fnd_api.g_miss_num
name	Varchar2(30)	fnd_api.g_miss_char
arrive_after_trip_id	Number	fnd_api.g_miss_num
arrive_after_trip_name	Varchar2(30)	fnd_api.g_miss_char
vehicle_item_id	Number	fnd_api.g_miss_num
vehicle_item_desc	Varchar2(240)	fnd_api.g_miss_char
vehicle_organization_id	Number	fnd_api.g_miss_num
vehicle_organization_ code	Varchar2(3)	fnd_api.g_miss_char
vehicle_number	Varchar2(30)	fnd_api.g_miss_char
vehicle_num_prefix	Varchar2(10)	fnd_api.g_miss_char
carrier_id	Number	fnd_api.g_miss_num
ship_method_code	Varchar2(30)	fnd_api.g_miss_char
ship_method_name	Varchar2(80)	fnd_api.g_miss_char
route_id	Number	fnd_api.g_miss_num
routing_instructions	Varchar2(2000)	fnd_api.g_miss_char
attribute_category	Varchar2(150)	fnd_api.g_miss_char
attribute1	Varchar2(150)	fnd_api.g_miss_char
attribute2	Varchar2(150)	fnd_api.g_miss_char
attribute3	Varchar2(150)	fnd_api.g_miss_char
attribute4	Varchar2(150)	fnd_api.g_miss_char
attribute5	Varchar2(150)	fnd_api.g_miss_char
attribute6	Varchar2(150)	fnd_api.g_miss_char
attribute7	Varchar2(150)	fnd_api.g_miss_char
attribute8	Varchar2(150)	fnd_api.g_miss_char
attribute9	Varchar2(150)	fnd_api.g_miss_char
attribute10	Varchar2(150)	fnd_api.g_miss_char

Table 5–7 TRIP_PUB_REC_TYPE Record Definition

Attribute	Type	Default Value
attribute11	Varchar2(150)	fnd_api.g_miss_char
attribute12	Varchar2(150)	fnd_api.g_miss_char
attribute13	Varchar2(150)	fnd_api.g_miss_char
attribute14	Varchar2(150)	fnd_api.g_miss_char
attribute15	Varchar2(150)	fnd_api.g_miss_char
creation_date	Date	fnd_api.g_miss_char
created_by	Number	fnd_api.g_miss_num
last_update_date	Date	fnd_api.g_miss_date
last_updated_by	Number	fnd_api.g_miss_num
last_update_login	Date	fnd_api.g_miss_date
program_application_id	Number	fnd_api.g_miss_num
program_id	Number	fnd_api.g_miss_num
program_update_date	Date	fnd_api.g_miss_date
request_id	Number	fnd_api.g_miss_num

Record Parameter Attribute Validations

trip_id
Should be a valid unique element of wsh_trips.trip_id.

name
Should be a valid unique element of wsh_trips.name

arrive_after_trip_id
Should be a valid element of wsh_trips.trip_id.

arrive_after_trip_name
Should be a valid element of wsh_trips.name

vehicle_item_id

Should be a valid vehicle item in mtl_system_items.inventory_item_id as designated by mtl_system_items.vehicle_tem_flag.

vehicle_item_desc

Key flex field description for vehicle item.

vehicle_organization_id

Should be a valid element of org_organization_definitions.organization_id and be assigned to the specific item in mtl_system_items.organization_id.

vehicle_organization_code

Should be a valid element of org_organization_definitions.organization_code for that specific organization_id.

ship_method_code

Should be a valid element of fnd_lookup_values_vl.lookup_code for lookup_type SHIP_METHOD.

ship_method_name

Should be a valid element of fnd_lookup_values_vl.meaning for lookup_type SHIP_METHOD.

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Trip_Action API Features

The Trip_Action API has the following features:

The Trip_Action procedure enables you to carry out actions on a trip. It accepts as IN parameters the trip identifiers, an action code and any additional parameters needed for specific actions, and returns a completion status.

Functional Overview

This API validates the trip identifiers and performs the following actions specified in p_action_code by calling the corresponding private procedures.

- PLAN/UNPLAN: Is called to plan or unplan trips.
- WT-VOL: Is called to calculate weight and volume for the trip. This action needs an additional parameter P_WV_OVERRIDE_FLAG. If this is set to Y, weight and volume re-calculations are done for all deliveries on the trip.
- PICK_RELEASE: Is called to launch pick release to release lines related to the trip.
- DELETE: Is called to delete trips.

Procedure Parameter Descriptions

WSH_TRIPS_PUB.TRIP_ACTION

The following chart describes all parameters used by the public procedure WSH_ TRIPS_PUB. TRIP_ACTION. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–8 WSH_TRIPS_PUB. TRIP_ACTION Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_action_code	IN	Varchar2	x
p_trip_id	IN OUT	Record	-

Table 5–8 WSH_TRIPS_PUB. TRIP_ACTION Parameters

Parameter	Usage	Type	Required
p_trip_name	IN	Varchar2	-
p_wv_override_flag	IN	Varchar2	-

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Returns error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_action_code

Specifies which of the actions of PLAN, UNPLAN, WT-VOL, PICK RELEASE, DELETE the API should perform.

p_trip_id

Trip ID of trip on which actions are being performed.

p_trip_name

Name of trip on which actions are being performed.

p_wv_override_flag

Additional parameter for WT-VOL, If this is set to Y, weight and volume re-calculations are done for all deliveries on the trip. Default value is N.

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Stop Public Application Program Interface

The Stop Public Application Program Interface (API) is a public API that consists of the following two procedures in package **WSH_TRIP_STOPS_PUB**:

Create_Update_Stop: Enables you to create a new stop record and update an existing stop record.

Stop_Action: Enables you to perform certain actions on a stop.

This section describes how to use the Stop Public API and how it functions in Oracle Shipping Execution.

Create_Update_Stop API Features

The Create_Update_Stop API has the following features.

The Create_Update_Stop procedure enables you to create a new stop record or update an existing stop record in WSH_TRIP_STOPS table. The STOP_ID and return status of a new stop are passed as OUT parameters, while the TRIP_ID of an existing stop for update is passed as an IN parameter.

Functional Overview

This API creates a new stop record in WSH_TRIP_STOPS as specified by IN parameter p_action_code value CREATE. It inserts stop information into WSH_TRIP_STOPS and returns the STOP_ID of the new stop. It also updates an existing stop record in WSH_TRIP_STOPS as specified by IN parameter p_action_code value UPDATE. The stop record being updated is identified by Stop Id or Trip Id/Name, Stop Location Id/Code and Planned Departure Date. Additional IN parameters are provided to update Trip Id/Name, Stop Location Id/Code and Planned Departure Date.

The API validates information such as Trip Name, Location Code, and UOMs before performing the actions of creating or updating a stop record. It also checks that the insert or update statements were successful, and if not returns an error.

Procedure Parameter Descriptions

WSH_TRIP_STOPS_PUB.CREATE_UPDATE_STOP

The following chart describes all parameters used by the public procedure WSH_TRIP_STOPS_PUB.CREATE_UPDATE_STOP. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–9 WSH_TRIP_STOPS_PUB.CREATE_UPDATE_STOP Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_action_code	IN	Varchar2	x
p_stop_info	IN OUT	Record	x
p_trip_id	IN	Number	-
p_trip_name	IN	Varchar2	-
p_stop_location_id	IN	Number	-
p_location_code	IN	Varchar2	-
p_planned_dep_date	IN	Varchar2	-
x_stop_id	OUT	Number	-

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Displays error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_action_code

Specifies whether API should create a new stop or update existing stop information depending on its values CREATE and UPDATE.

p_stop_info

Attributes of the stop entity of type Trip_Stop_Pub_Rec_Type. These attributes are inserted/updated in WSH_TRIP_STOPS. Definition of Trip_Stop_Pub_Rec_Type follows.

p_trip_id

IN parameter to specify trip ID of trip stop record being updated.

Default Value: FND_API.G_MISS_NUM

p_trip_name

IN parameter to specify trip name of trip stop record that is needed to be updated.

Default Value: FND_API.G_MISS_CHAR

p_stop_location_id

IN parameter to specify stop location ID of trip stop record being updated.

Default Value: FND_API.G_MISS_NUM

p_location_code

IN parameter to specify stop location code of stop record that is needed to be updated.

Default Value: FND_API.G_MISS_CHAR

p_planned_dep_date

IN parameter to specify planned date of departure.

Default Value: FND_API.G_MISS_DATE

x_stop_id

OUT parameter to specify new stop ID of new stop record being created.

Record Parameter Descriptions

TRIP_STOP_PUB_REC_TYPE RECORD DEFINITION

To encapsulate WSH_TRIP_STOPS table definition and Value column equivalents for ID columns in a PL/SQL record, define TRIP_STOP_PUB_REC_TYPE to pass trip information to the Create_Update_Stop routine.

Table 5–10 TRIP_STOP_PUB_REC_TYPE RECORD DEFINITION

Attribute	Type	Default Value
stop_id	Number	fnd_api.g_miss_num
trip_id	Number	fnd_api.g_miss_num
trip_name	Varchar2(30)	fnd_api.g_miss_char
stop_location_id	Number	fnd_api.g_miss_num
stop_location_code	Varchar2(20)	fnd_api.g_miss_char
planned_arrival_date	Date	fnd_api.g_miss_date
planned_departure_date	Date	fnd_api.g_miss_date
actual_arrival_date	Date	fnd_api.g_miss_date
actual_departure_date	Date	fnd_api.g_miss_date
departure_gross_weight	Number	fnd_api.g_miss_num
departure_net_weight	Number	fnd_api.g_miss_num
weight_uom_code	Varchar2(3)	fnd_api.g_miss_char

Table 5–10 TRIP_STOP_PUB_REC_TYPE RECORD DEFINITION

Attribute	Type	Default Value
weight_uom_desc	Varchar2(25)	fnd_api.g_miss_char
departure_volume	Number	fnd_api.g_miss_num
volume_uom_code	Varchar2(3)	fnd_api.g_miss_char
volume_uom_desc	Varchar2(25)	fnd_api.g_miss_char
departure_seal_code	Varchar2(30)	fnd_api.g_miss_char
departure_fill_percent	Number	fnd_api.g_miss_char
tp_attribute_category	Varchar2(150)	fnd_api.g_miss_char
tp_attribute1	Varchar2(150)	fnd_api.g_miss_char
tp_attribute2	Varchar2(150)	fnd_api.g_miss_char
tp_attribute3	Varchar2(150)	fnd_api.g_miss_char
tp_attribute4	Varchar2(150)	fnd_api.g_miss_char
tp_attribute5	Varchar2(150)	fnd_api.g_miss_char
tp_attribute6	Varchar2(150)	fnd_api.g_miss_char
tp_attribute7	Varchar2(150)	fnd_api.g_miss_char
tp_attribute8	Varchar2(150)	fnd_api.g_miss_char
tp_attribute9	Varchar2(150)	fnd_api.g_miss_char
tp_attribute10	Varchar2(150)	fnd_api.g_miss_char
tp_attribute11	Varchar2(150)	fnd_api.g_miss_char
tp_attribute12	Varchar2(150)	fnd_api.g_miss_char
tp_attribute13	Varchar2(150)	fnd_api.g_miss_char
tp_attribute14	Varchar2(150)	fnd_api.g_miss_char
tp_attribute15	Varchar2(150)	fnd_api.g_miss_char
attribute_category	Varchar2(150)	fnd_api.g_miss_char
attribute1	Varchar2(150)	fnd_api.g_miss_char
attribute2	Varchar2(150)	fnd_api.g_miss_char
attribute3	Varchar2(150)	fnd_api.g_miss_char
attribute4	Varchar2(150)	fnd_api.g_miss_char

Table 5–10 TRIP_STOP_PUB_REC_TYPE RECORD DEFINITION

Attribute	Type	Default Value
attribute5	Varchar2(150)	fnd_api.g_miss_char
attribute6	Varchar2(150)	fnd_api.g_miss_char
attribute7	Varchar2(150)	fnd_api.g_miss_char
attribute8	Varchar2(150)	fnd_api.g_miss_char
attribute9	Varchar2(150)	fnd_api.g_miss_char
attribute10	Varchar2(150)	fnd_api.g_miss_char
attribute11	Varchar2(150)	fnd_api.g_miss_char
attribute12	Varchar2(150)	fnd_api.g_miss_char
attribute13	Varchar2(150)	fnd_api.g_miss_char
attribute14	Varchar2(150)	fnd_api.g_miss_char
attribute15	Varchar2(150)	fnd_api.g_miss_char
creation_date	Date	fnd_api.g_miss_date
created_by	Number	fnd_api.g_miss_num
last_update_date	Date	fnd_api.g_miss_date
last_updated_by	Number	fnd_api.g_miss_num
last_update_login	Date	fnd_api.g_miss_date
program_application_id	Number	fnd_api.g_miss_num
program_id	Number	fnd_api.g_miss_num
program_update_date	Date	fnd_api.g_miss_date
request_id	Number	fnd_api.g_miss_num

Record Parameter Attribute Validations

stop_id

Should be a valid unique element of wsh_trip_stops.stop_id.

trip_id

Should be a valid unique element of wsh_trips.trip_id.

trip_name
Should be a valid unique element of wsh_trips.name

stop_location_id
Should be a valid element of hr_locations.location_id

stop_location_code
Should be a valid element of hr_locations.location_code.

weight_uom_code
Should be a valid element of mtl_units_of_measure.uom_code for a weight uom class.

weight_uom_desc
Should be a valid element of mtl_units_of_measure.unit_of_measure for a weight uom class.

volume_uom_code
Should be a valid element of mtl_units_of_measure.uom_code for a volume uom class.

volume_uom_desc
Should be a valid element of mtl_units_of_measure.unit_of_measure for a volume uom class.

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Stop_Action API Features

The Stop_Action API has the following features:

The Trip_Action procedure enables you to carry out actions on a stop. It accepts as IN parameters the trip identifiers, an action code and any additional parameters needed for specific actions, and returns a completion status.

Functional Overview

This API validates the stop identifiers and performs the following actions specified in p_action_code by calling the corresponding private procedures.

- PLAN/UNPLAN: Is called to plan or unplan stops.
- ARRIVE/CLOSE: Is called to update departure or arrival dates and to close a stop. This action needs an additional parameter P_ACTUAL_DATE for actual departure or arrival updates.
- PICK_RELEASE: Launches pick release to release lines related to a stop.
- DELETE: Is called to delete stops.

Procedure Parameter Descriptions

WSH_TRIP_STOP_PUB.STOP_ACTION

The following chart describes all parameters used by the public procedure WSH_TRIP_STOP_PUB.STOP_ACTION. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–11 WSH_TRIP_STOP_PUB.STOP_ACTION Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_action_code	IN	Varchar2	x
p_stop_id	in	Number	-

Table 5–11 WSH_TRIP_STOP_PUB.STOP_ACTION Parameters

Parameter	Usage	Type	Required
p_trip_id	IN	Number	-
p_trip_name	IN	Varchar2	-
p_stop_location_id	IN	Varchar2	-
p_stop_location_code	IN	Varchar2	-
p_planned_dep_date	IN	Date	-
p_actual_date	IN	Date	-
p_defer_interface_flag	IN	Varchar2	-

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count
Indicates number of error messages API has encountered.

x_msg_data
Returns error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_action_code
Specifies which of the actions of PLAN, UNPLAN, ARRIVE, CLOSE, PICK RELEASE, DELETE the API should perform.

p_stop_id
Stop ID of trip stop on which actions need to be performed.

p_stop_id
Stop ID of trip stop on which actions need to be performed.

p_trip_id
Trip ID of trip stop on which actions need to be performed.

p_trip_name
Trip name of trip stop on which actions need to be performed.

p_stop_location_id
Stop location ID of trip stop on which actions need to be performed.

p_stop_location_code
Stop location code of trip stop on which actions need to be performed.

p_planned_dep_date
Planned departure date of trip stop on which actions need to be performed.

p_actual_date
Actual date of arrival/departure of trip stop.

p_defer_interface_flag
Flag to submit/defer concurrent requests to INV and OE interfaces.

Deliveries Public Application Program Interface

The Deliveries Public Application Program Interface (API) is a public API that consists of the following procedures in **WSH_DELIVERIES_PUB**:

- **Create_Update_Delivery:** Enables you to create a new trip stop record and update an existing trip stop record.
- **Delivery_Action:** Enables you to perform certain actions on a trip stop.
- **Generate_Documents:** Generates the document set for a delivery.

This section describes how to use the Deliveries Public API and how it functions in Oracle Shipping Execution.

Create_Update_Delivery API Features

The Create_Update_Delivery API has the following features.

The Create_Update_Delivery procedure enables you to create a new delivery record or update an existing delivery record in WSH_NEW_DELIVERIES table. The DELIVERY_ID, NAME and return status of a new delivery are passed as OUT parameters, while the DELIVERY_ID or NAME of an existing delivery for update is passed as an IN parameter.

Functional Overview

This API creates a new delivery record in WSH_NEW_DELIVERIES as specified by IN parameter p_action_code value CREATE. Inserts delivery information into WSH_NEW_DELIVERIES and returns the DELIVERY_ID of the new delivery. It also updates an existing delivery record in WSH_NEW_DELIVERIES as specified by IN parameter p_action_code value UPDATE. Delivery record being updated is identified by Delivery Name. An additional IN parameter is provided to identify delivery by Name for update.

The API validates delivery information such as Name, Customer Number, and Ship Method before performing the actions CREATE or UPDATE. It also checks that the insert or update statements were successful, and if not, returns an error.

Procedure Parameter Descriptions

WSH_DELIVERIES_PUB.CREATE_UPDATE_DELIVERY

The following chart describes all parameters used by the public procedure WSH_DELIVERIES_PUB.CREATE_UPDATE_DELIVERY. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–12 WSH_DELIVERIES_PUB.CREATE_UPDATE_DELIVERY Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_action_code	IN	Varchar2	x
p_delivery_info	IN OUT	Record	x
p_delivery_name	IN	Varchar2	-
x_delivery_id	OUT	Number	-
x_name	OUT	Varchar2	-

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Displays error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_action_code

Specifies whether API should create a new delivery or update existing delivery information depending on its values CREATE and UPDATE.

p_delivery_info

Attributes of the delivery entity of type Delivery_Pub_Rec_Type. These attributes are inserted/updated in WSH_NEW_DELIVERIES. Definition of Delivery_Pub_Rec_Type follows.

p_delivery_name

IN parameter to specify name of delivery record being updated.

Default Value: FND_API.G_MISS_CHAR

x_delivery_id

OUT parameter to specify delivery ID of new delivery record being created.

x_name

OUT parameter to specify name of new delivery record being created.

Record Parameter Descriptions

DELIVERY_PUB_REC_TYPE RECORD DEFINITION

To encapsulate WSH_NEW_DELIVERIES table definition and Value column equivalents for ID columns in a PL/SQL record, define DELIVERIES_PUB_REC_TYPE to pass delivery information to the Create_Update_Delivery routine.

Table 5–13 DELIVERY_PUB_REC_TYPE RECORD DEFINITION

Attribute	Type	Default
delivery_id	Number	fnd_api.g_miss_num
name	Varchar2(30)	fnd_api.g_miss_char
delivery_type	Varchar2(30)	fnd_api.g_miss_char
loading_sequence	Number	fnd_api.g_miss_num
loading_order_flag	Varchar2(2)	fnd_api.g_miss_char
loading_order_desc	Varchar2(20)	fnd_api.g_miss_char
initial_pickup_date	Date	fnd_api.g_miss_date
initial_pickup_location_id	Number	fnd_api.g_miss_num
initial_pickup_location_code	Varchar2(20)	fnd_api.g_miss_char
organization_id	Number	fnd_api.g_miss_num
organization_code	Varchar2(3)	fnd_api.g_miss_char
ultimate_dropoff_location_id	Number	fnd_api.g_miss_num
ultimate_dropoff_location_code	Varchar2(20)	fnd_api.g_miss_char
ultimate_dropoff_date	Date	fnd_api.g_miss_date
customer_id	Number	fnd_api.g_miss_num
customer_number	Varchar2(30)	fnd_api.g_miss_char
intmed_ship_to_location_id	Number	fnd_api.g_miss_num
intmed_ship_to_location_code	Varchar2(20)	fnd_api.g_miss_char
pooled_ship_to_location_id	Number	fnd_api.g_miss_num
pooled_ship_to_location_code	Varchar2(20)	fnd_api.g_miss_char
carrier_id	Number	fnd_api.g_miss_num
carrier_code	Varchar2(25)	fnd_api.g_miss_char

Table 5–13 DELIVERY_PUB_REC_TYPE RECORD DEFINITION

Attribute	Type	Default
ship_method_code	Varchar2(30)	fnd_api.g_miss_char
ship_method_name	Varchar2(80)	fnd_api.g_miss_char
freight_terms_code	Varchar2(30)	fnd_api.g_miss_char
freight_terms_name	Varchar2(80)	fnd_api.g_miss_char
fob_code	Varchar2(30)	fnd_api.g_miss_char
fob_name	Varchar2(80)	fnd_api.g_miss_char
fob_location_id	Number	fnd_api.g_miss_num
fob_location_code	Varchar2(20)	fnd_api.g_miss_char
waybill	Varchar2(30)	fnd_api.g_miss_char
dock_code	Varchar2(30)	fnd_api.g_miss_char
acceptance_flag	Varchar2(1)	fnd_api.g_miss_char
accepted_by	Varchar2(150)	fnd_api.g_miss_char
accepted_date	Date	fnd_api.g_miss_date
acknowledged_by	Varchar2(150)	fnd_api.g_miss_char
confirmed_by	Varchar2(150)	fnd_api.g_miss_char
confirm_date	Date	fnd_api.g_miss_date
asn_date_sent	Date	fnd_api.g_miss_date
asn_status_code	Varchar2(15)	fnd_api.g_miss_char
asn_seq_number	Number	fnd_api.g_miss_num
gross_weight	Number	fnd_api.g_miss_num
net_weight	Number	fnd_api.g_miss_num
weight_uom_code	Varchar2(3)	fnd_api.g_miss_char
weight_uom_desc	Varchar2(25)	fnd_api.g_miss_char
volume	Number	fnd_api.g_miss_num
volume_uom_code	Varchar2(3)	fnd_api.g_miss_char
volume_uom_desc	Varchar2(25)	fnd_api.g_miss_char
additional_shipment_info	Varchar2(500)	fnd_api.g_miss_char

Table 5–13 DELIVERY_PUB_REC_TYPE RECORD DEFINITION

Attribute	Type	Default
currency_code	Varchar2(15)	fnd_api.g_miss_char
currency_name	Varchar2(80)	fnd_api.g_miss_char
attribute_category	Varchar2(150)	fnd_api.g_miss_char
attribute1	Varchar2(150)	fnd_api.g_miss_char
attribute2	Varchar2(150)	fnd_api.g_miss_char
attribute3	Varchar2(150)	fnd_api.g_miss_char
attribute4	Varchar2(150)	fnd_api.g_miss_char
attribute5	Varchar2(150)	fnd_api.g_miss_char
attribute6	Varchar2(150)	fnd_api.g_miss_char
attribute7	Varchar2(150)	fnd_api.g_miss_char
attribute8	Varchar2(150)	fnd_api.g_miss_char
attribute9	Varchar2(150)	fnd_api.g_miss_char
attribute10	Varchar2(150)	fnd_api.g_miss_char
attribute11	Varchar2(150)	fnd_api.g_miss_char
attribute12	Varchar2(150)	fnd_api.g_miss_char
attribute13	Varchar2(150)	fnd_api.g_miss_char
attribute14	Varchar2(150)	fnd_api.g_miss_char
attribute15	Varchar2(150)	fnd_api.g_miss_char
tp_attribute_category	Varchar2(150)	fnd_api.g_miss_char
tp_attribute1	Varchar2(150)	fnd_api.g_miss_char
tp_attribute2	Varchar2(150)	fnd_api.g_miss_char
tp_attribute3	Varchar2(150)	fnd_api.g_miss_char
tp_attribute4	Varchar2(150)	fnd_api.g_miss_char
tp_attribute5	Varchar2(150)	fnd_api.g_miss_char
tp_attribute6	Varchar2(150)	fnd_api.g_miss_char
tp_attribute7	Varchar2(150)	fnd_api.g_miss_char
tp_attribute8	Varchar2(150)	fnd_api.g_miss_char

Table 5–13 DELIVERY_PUB_REC_TYPE RECORD DEFINITION

Attribute	Type	Default
tp_attribute9	Varchar2(150)	fnd_api.g_miss_char
tp_attribute10	Varchar2(150)	fnd_api.g_miss_char
tp_attribute11	Varchar2(150)	fnd_api.g_miss_char
tp_attribute12	Varchar2(150)	fnd_api.g_miss_char
tp_attribute13	Varchar2(150)	fnd_api.g_miss_char
tp_attribute14	Varchar2(150)	fnd_api.g_miss_char
tp_attribute15	Varchar2(150)	fnd_api.g_miss_char
global_attribute_category	Varchar2(30)	fnd_api.g_miss_char
global_attribute1	Varchar2(150)	fnd_api.g_miss_char
global_attribute2	Varchar2(150)	fnd_api.g_miss_char
global_attribute3	Varchar2(150)	fnd_api.g_miss_char
global_attribute4	Varchar2(150)	fnd_api.g_miss_char
global_attribute5	Varchar2(150)	fnd_api.g_miss_char
global_attribute6	Varchar2(150)	fnd_api.g_miss_char
global_attribute7	Varchar2(150)	fnd_api.g_miss_char
global_attribute8	Varchar2(150)	fnd_api.g_miss_char
global_attribute9	Varchar2(150)	fnd_api.g_miss_char
global_attribute10	Varchar2(150)	fnd_api.g_miss_char
global_attribute11	Varchar2(150)	fnd_api.g_miss_char
global_attribute12	Varchar2(150)	fnd_api.g_miss_char
global_attribute13	Varchar2(150)	fnd_api.g_miss_char
global_attribute14	Varchar2(150)	fnd_api.g_miss_char
global_attribute15	Varchar2(150)	fnd_api.g_miss_char
global_attribute16	Varchar2(150)	fnd_api.g_miss_char
global_attribute17	Varchar2(150)	fnd_api.g_miss_char
global_attribute18	Varchar2(150)	fnd_api.g_miss_char
global_attribute19	Varchar2(150)	fnd_api.g_miss_char

Table 5–13 DELIVERY_PUB_REC_TYPE RECORD DEFINITION

Attribute	Type	Default
global_attribute20	Varchar2(150)	fnd_api.g_miss_char
creation_date	Date	fnd_api.g_miss_date
created_by	Number	fnd_api.g_miss_num
last_update_date	Date	fnd_api.g_miss_date
last_updated_by	Number	fnd_api.g_miss_num
last_update_login	Number	fnd_api.g_miss_num
program_application_id	Number	fnd_api.g_miss_num
program_id	Number	fnd_api.g_miss_num
program_update_date	Date	fnd_api.g_miss_date
request_id	Number	fnd_api.g_miss_num

Record Parameter Attribute Validations

delivery_id
Should be a valid unique element of wsh_new_deliveries.delivery_id.

delivery_name
Should be a valid unique element of wsh_new_deliveries.name.

delivery_type
Should be either STANDARD.

loading_order_flag
Should be a valid element of fnd_lookup_values_vl.lookup_code for lookup_type LOADING_ORDER.

loading_order_desc
Should be a valid element of fnd_lookup_values_vl.meaning for lookup_type LOADING_ORDER.

initial_pickup_location_id
Should be a valid element of hr_locations.location_id.

initial_pickup_location_code
Should be a valid element of hr_locations.location_code.

organization_id
Should be a valid element of org_organization_definitions.organization_id.

organization_code
Should be a valid element of org_organization_definitions.organization_code.

ultimate_dropoff_location_id
Should be a valid element of hr_locations.location_id.

ultimate_dropoff_location_code
Should be a valid element of hr_locations.location_code.

customer_id
Should be a valid element of ra_customers.customer_id.

customer_code
Should be a valid element of ra_customers.customer_code.

intmed_ship_to_location_id
Should be a valid element of hr_locations.location_id.

intmed_ship_to_location_code
Should be a valid element of hr_locations.location_code.

pooled_ship_to_location_id
Should be a valid element of hr_locations.location_id.

pooled_ship_to_location_code
Should be a valid element of hr_locations.location_code.

ship_method_code
Should be a valid element of fnd_lookup_values_vl.lookup_code for lookup_type SHIP_METHOD.

ship_method_name
Should be a valid element of fnd_lookup_values_vl.meaning for lookup_type SHIP_METHOD.

freight_terms_code
Should be a valid element of fnd_lookup_values_vl.lookup_code for lookup_type FREIGHT_TERMS.

freight_terms_name
Should be a valid element of fnd_lookup_values_vl.meaning for lookup_type FREIGHT_TERMS.

fob_code
Should be a valid element of fnd_lookup_values_vl.lookup_code for lookup_type FOB.

fob_terms_name
Should be a valid element of fnd_lookup_values_vl.meaning for lookup_type FOB.

fob_location_id
Should be a valid element of hr_locations.location_id.

fob_location_code
Should be a valid element of hr_locations.location_code.

weight_uom_code
Should be a valid element of mtl_units_of_measure.uom_code for a weight uom class

weight_uom_desc
Should be a valid element of mtl_units_of_measure.unit_of_measure for a weight uom class.

volume_uom_code
Should be a valid element of mtl_units_of_measure.uom_code for a volume uom class.

volume_uom_desc

Should be a valid element of mtl_units_of_measure.unit_of_measure for a volume uom class.

currency_code

Should be a valid element of fnd_currencies_vl.currency_code.

currency_name

Should be a valid element of fnd_currencies_vl.currency_name.

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Delivery_Action API Features

The Delivery_Action API has the following features:

The Delivery_Action procedure enables you to carry out actions on a delivery. It accepts as IN parameters the delivery identifiers, an action code and any additional parameters needed for specific actions, and returns a completion status.

Note: Before you call this public API, initialize your environment (using `fnd_global.apps_initialize`) in the script or package that you use to call it.

Functional Overview

This API validates the delivery identifiers and performs the following actions specified in p_action_code by calling the corresponding private procedures:

- PLAN/UNPLAN: Is called to plan or unplan deliveries.
- WT-VOL: Is called to calculate weight and volume for the delivery. This action needs an additional parameter P_WV_OVERRIDE_FLAG. If this is set to Y, weight and volume re-calculations are done for all deliveries on the trip.
- CONFIRM: Is called to confirm delivery. Requires additional parameters starting with P_SC
- RE-OPEN, CLOSE: Is called to update status of delivery. This action needs an additional parameter P_ACTUAL_DATE for actual departure or arrival updates.
- ASSIGN-TRIP: Is called to assign a trip to delivery. It requires additional parameters starting with P_ASG.
- UNASSIGN-TRIP: Is called to unassign trip from delivery.
- AUTOCREATE-TRIP: Is called to autocreate trip for the delivery.
- PICK_RELEASE: Launches pick release to release lines related to a delivery.
- DELETE: Is called to delete a delivery.

Procedure Parameter Descriptions

WSH_DELIVERY_PUB.DELIVERY_ACTION

The following chart describes all parameters used by the public procedure WSH_DELIVERY_PUB.DELIVERY_ACTION. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–14 WSH_DELIVERY_PUB.DELIVERY_ACTION Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_action_code	IN	Varchar2	x
p_delivery_id	IN	Number	-
p_delivery_name	IN	Varchar2	-
p_asg_trip_id	IN	Number	-
p_asg_trip_name	IN	Varchar2	-
p_asg_pickup_stop_id	IN	Number	-
p_asg_pickup_loc_id	IN	Number	-
p_asg_pickup_loc_code	IN	Varchar2	-
p_asg_pickup_arr_date	IN	Date	-
p_asg_pickup_dep_date	IN	Number	-
p_asg_dropoff_stop_id	IN	Number	-
p_asg_dropoff_loc_id	IN	Number	-
p_asg_dropoff_loc_code	IN	Varchar2	-
p_asg_dropoff_arr_date	IN	Date	-
p_asg_dropoff_dep_date	IN	Date	-
p_sc_action_flag	IN	Varchar2	-
p_sc_intransit_flag	IN	Varchar2	-
p_sc_close_trip_flag	IN	Varchar2	-
p_sc_create_bol_flag	IN	Varchar2	-

Table 5–14 WSH_DELIVERY_PUB.DELIVERY_ACTION Parameters

Parameter	Usage	Type	Required
p_sc_stage_del_flag	IN	Varchar2	-
p_sc_trip_ship_method	IN	Varchar2	-
p_sc_actual_dep_date	IN	Varchar2	-
p_sc_report_set_id	IN	Number	-
p_sc_report_set_name	IN	Varchar2	-
p_sc_defer_interface_flag	IN	Varchar2	-
p_wv_override_flag	IN	Varchar2	-
x_trip_id	OUT	Varchar2	-
x_trip_name	OUT	Varchar2	-
p_actual_date	IN	Date	-

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count
Indicates number of error messages API has encountered.

x_msg_data
Returns error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_action_code
Specifies which of the actions of PLAN, UNPLAN, CONFIRM, RE-OPEN, CLOSE, ASSIGN-TRIP, UNASSIGN-TRIP, AUTOCREATE-TRIP, WT-VOL, PICK RELEASE, DELETE the API should perform.

p_delivery_name
Name of delivery on which actions need to be performed.

p_delivery_id
Delivery ID on which actions need to be performed.

Default Value: NULL.

p_asg_trip_id
Trip identifier for assignment of trip to delivery. Used when assigning a trip.

Default Value: NULL.

p_trip_name
Name of trip for assignment to delivery. Used when assigning a trip.

Default Value: NULL.

p_asg_pickup_stop_id
Stop ID for pickup assignment. Used when assigning a trip.

Default Value: NULL.

p_asg_pickup_loc_id
Stop location for pickup assignment. Used when assigning a trip.

Default Value: NULL.

p_asg_pickup_loc_code
Stop location code for pickup assignment. Used when assigning a trip.

Default Value: NULL.

p_asg_pickup_arr_date
Stop location arrival date for pickup assignment. Used when assigning a trip.

Default Value: NULL.

p_asg_pickup_dep_date
Stop location departure date for pickup assignment. Used when assigning a trip.

Default Value: NULL.

p_asg_dropoff_stop_id
Stop ID for dropoff assignment. Used when assigning a trip.

Default Value: NULL.

p_asg_dropoff_loc_id
Stop location for dropoff assignment. Used when assigning a trip.

Default Value: NULL.

p_asg_dropoff_loc_code
Stop location code for dropoff assignment. Used when assigning a trip.

Default Value: NULL.

p_asg_dropoff_arr_date
Stop location arrival date for dropoff assignment. Used when assigning a trip.

Default Value: NULL.

p_asg_dropoff_dep_date
Stop location departure date for dropoff assignment. Used when assigning a trip.

Default Value: NULL.

p_sc_action_flag
Ship Confirm option - S, B, T, A, C. Used when ship confirming a delivery.

Default Value: S

p_sc_intransit_flag
Ship Confirm set in-transit flag. Used when ship confirming a delivery.

Default Value: N

p_sc_close_trip_flag
Ship Confirm close trip flag. Used when ship confirming a delivery.

Default Value: N

p_sc_create_bol_flag
Ship Confirm create Bill of Lading flag. Used when ship confirming a delivery.

Default Value: N.

p_sc_stage_del_flag
Ship Confirm create delivery for stage quantity flag. Used when ship confirming a delivery.

Default Value: Y.

p_sc_trip_ship_method
Ship Confirm trip ship method. Used when ship confirming a delivery.

Default Value: NULL.

p_defer_interface_flag
Ship Confirm flag to submit/defer concurrent requests to INV and OE interfaces.

Default Value: Y

p_wv_override_flag
Override flag for weight volume calculations.

Default Value: N

x_trip_id
ID of autocreated trip.

x_trip_name
Name of autocreated trip.

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Generate_Documents API Features

The Generate_Documents API generates the document set for a delivery. It takes the report_set_name, organization_code, and a table of delivery_names as the input parameter and passes the return_status, message_data and message_count as the output parameters.

Functional Overview

This API is for backward compatibility. A call to this API generates the document set specified in the IN parameter report_set_name for all the deliveries in the IN parameter delivery_names.

Setting Up the Generate_Documents API

Parameter Descriptions

The following chart describes all parameters used by the public Generate_ Documents API. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–15 Generate_Documents Parameters

Parameter	Usage	Type	Required
p_report_set_name	IN	VARCHAR2	-
p_organization_code	IN	VARCHAR2	-

Table 5–15 Generate_Documents Parameters

Parameter	Usage	Type	Required
p_delivery_name	IN	WSH_UTIL_CORE. Column_Tab_Type	-
x_msg_count	OUT	NUMBER	-
x_msg_data	OUT	VARCHAR2	-
x_return_status	OUT	VARCHAR2	-

p_report_set_name

This is the report_Set that needs to be generated for all the deliveries specified in p_delivery_name parameter.

p_organization_code

This is the organization code for which the document _set needs to be generated.

p_delivery_name

This is the list of delivery_names for which the document set needs to be generated.

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Contains error message text. If X_msg_count is 1, then this contains the complete message.

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include the following:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

Exceptions Application Program Interface

Exceptions Application Program Interface (API) is a public API that consists of the following procedure in the package WSH_EXCEPTIONS_PUB.

Exception_Action: Enables you to carry out actions on an exception. It accepts as IN parameters the exception identifiers, an action code and returns a completion status.

Get_Exceptions: Enables you to access detailed information about an exception and stores it in an exception table.

Exception_Action API Features

The Exception_Action procedure enables you to carry out actions on an exception. It accepts as IN parameters the exceptions identifiers in a table, an action, and returns a completion status.

Note: Before you call this public API, initialize your environment (using fnd_global.apps_initialize) in the script or package that you use to call it.

Functional Overview

This API validates its input parameters p_action and performs the following actions depending on its value:

- PURGE: It is used to purge existing exceptions
- LOG: It is used to log an exception based on the values in the input exceptions record (p_exception_rec)
- CHANGE_STATUS: Its is used to change the status of an exception

Setting Up the Exception_Actions API

Parameter Descriptions

The following chart describes all parameters used by the public Exception_Actions API. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–16 Exception_Actions Parameters

Parameter	Usage	Type	Required	Derived	Optional
p_api_version_ number	IN	NUMBER	x	-	-
p_init_msg_list	IN	VARCHAR2	-	-	x
p_commit	IN	VARCHAR2	-	-	x
p_action	IN	VARCHAR2	x	-	-
p_validation_level	IN	NUMBER	-	-	x
p_exceptions_rec	IN OUT	XC_ACTION_ REC_TYPE	x	-	-
x_msg_count	OUT	NUMBER	-	x	-
x_msg_data	OUT	VARCHAR2	-	x	-
x_return_status	OUT	VARCHAR2	-	x	-

p_api_version_number

Used to compare the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_ MSG_ PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

  where 1_message and 1_msg_index_out are local variables of types Varchar2(2000 and Number respectively.
- Default Value: FND_API.G_FALSE

p_commit

Requests that the API update information for you after it completes its function. Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Displays error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_validation_level

This parameter is not currently used.

p_action

This parameter specifies the actions that needs to be performed on the exception. Valid values for this parameter are 'LOG', 'PURGE' and 'CHANGE_STATUS'.

p_exception_rec

This record structure has all the exception specific entries.

The table below describes all parameters that are used by the XC_ACTION_REC_TYPE TYPE record. Additional information on these parameters follows.

XC_ACTION_REC_TYPE

Table 5–17 XC_ACTION_REC_TYPE Parameters

Parameter	Type	Default Value
request_id	NUMBER	
batch_id	NUMBER	
exception_id	NUMBER	
exception_name	VARCHAR2	

Table 5–17 XC_ACTION_REC_TYPE Parameters

Parameter	Type	Default Value
logging_entity	VARCHAR2	
logging_entity_id	NUMBER	
manually_logged	VARCHAR2	
message	VARCHAR2	
logged_at_location_code	VARCHAR2	
exception_location_code	VARCHAR2	
severity	VARCHAR2	
delivery_name	VARCHAR2	
trip_name	VARCHAR2	
stop_location_id	NUMBER	
delivery_detail_id	NUMBER	
container_name	VARCHAR2	
ord_id	NUMBER	
inventory_item_id	NUMBER	
lot_number	VARCHAR2	
sublot_number	VARCHAR2	
revision	VARCHAR2	
serial_number	VARCHAR2	
unit_of_measure	VARCHAR2	
quantity	NUMBER	
unit_of_measure2	VARCHAR2	
quantity2	NUMBER	
subinventory	VARCHAR2	
locator_id	NUMBER	
error_message	VARCHAR2	
attribute_category	VARCHAR2	

Table 5–17 XC_ACTION_REC_TYPE Parameters

Parameter	Type	Default Value
attribute1	VARCHAR2	
attribute2	VARCHAR2	
attribute3	VARCHAR2	
attribute4	VARCHAR2	
attribute5	VARCHAR2	
attribute6	VARCHAR2	
attribute7	VARCHAR2	
attribute8	VARCHAR2	
attribute9	VARCHAR2	
attribute10	VARCHAR2	
attribute11	VARCHAR2	
attribute12	VARCHAR2	
attribute13	VARCHAR2	
attribute14	VARCHAR2	
attribute15	VARCHAR2	
departure_date	DATE	
arrival_date	DATE	
exception_type	VARCHAR2	
status	VARCHAR2	
departure_date_to	DATE	
arrival_date_to	DATE	
creation_date	DATE	
creation_date_to	DATE	
data_older_no_of_days	NUMBER	
new_status	VARCHAR2	
caller	VARCHAR2	
phase	NUMBER	

The following fields are used for the purge action:

- exception_type: Specifies which type of exception needs to be purged.
- status: Specifies the status of exceptions that should be selected to be purged
- departure_date_to: Specifies that exceptions with departure_dates before this date should be purged
- arrival_date_to: Specifies that exceptions with arrival_dates before this date should be purged
- creation_date: Specifies that exceptions with creation_date same as this date should be purged
- creation_date_to: Specifies that exceptions with creation_dates before this date should be purged
- data_older_no_of_days: Specifies the maximum age of exceptions that should be purged
- departure_date: Specifies the departure_date of exceptions that should be purged
- arrival_date: Specifies the arrival date of exceptions that should be purged
- logged_at_location_code: Specifies the location_code where the exceptions have been logged that should be purged
- exception_location_code: Specifies the location_code of the exceptions that should be purged
- severity: Specifies the severity of the exceptions that should be purged
- delivery_name: Specifies the delivery name of the exception that should be purged
- exception_name: Specifies the name of the exception that should be purged
- logging_entity: Specifies the entity whose exceptions need to be purged
- request_id: Specifies the request_id whose exceptions needs to be purged

The following fields are used for the change_status action:

- exception_name: Specifies the exception_name whose status needs to be changed
- logging_entity: Specifies the logging entity whose exceptions need to change status

- logging_entity_id: Specifies the logging entity id whose exceptions need to change status
- new_status: Specifies the new status of the exceptions that satisfy the fields above

The following fields are used for Logging exceptions. The value of these fields are directly assigned to the corresponding columns in the table WSH_EXCEPTION when the new exception record is created.

- request_id
- batch_id
- exception_id
- exception_name
- logging_entity
- logging_entity_id
- manually_logged
- message
- logged_at_location_code
- exception_location_code
- severity
- delivery_name
- trip_name
- stop_location_id
- delivery_detail_id
- container_name
- org_id
- inventory_item_id
- lot_number
- sublot_number
- revision
- serial_number

- unit_of_measure
- quantity
- unit_of_measure2
- quantity2
- subinventory
- locator_id
- error_message
- attribute_category
- attribute1
- attribute2
- attribute3
- attribute4
- attribute5
- attribute6
- attribute7
- attribute8
- attribute9
- attribute10
- attribute11
- attribute12
- attribute13
- attribute14
- attribute15
- departure_date
- arrival_date

Get_Exceptions API Features

The Get_Exceptions API gets the exceptions based on the entity_name and the entity_id passed to it. The fetched details are stored in the table x_exceptions_tab which is the output parameter of the API.

Functional Overview

The Get_Exceptions API takes in p_logging_entity_id and p_logging_entity_name as IN parameters and passes out the exceptions that have been logged for this entity. The valid values of p_logging_entity_name are 'DELIVERY', 'TRIP' , 'STOP' ,'CONTAINER' and 'DETAIL'. Thus, if p_logging_entity is 'DELIVERY', then p_logging_entity_id should be a valid delivery_id.

Setting Up the Get_Exceptions API

Parameter Descriptions

The following chart describes all parameters used by the public Get_Exceptions API. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–18 Get_Exceptions Parameters

Parameter	Usage	Type	Required	Derived	Optional
p_api_version_ number	IN	NUMBER	x	-	-
p_init_msg_list	IN	VARCHAR2	-	-	x
x_return_status	OUT	VARCHAR2	-	-	x
x_msg_count	OUT	NUMBER	-	-	x
x_msg_data	OUT	VARCHAR2	-	x	-
p_logging_entity_id	IN	NUMBER	x	-	-
p_logging_entity	IN	VARCHAR2	x	-	-
x_excptions_tab	OUT	XC_TAB_TYPE	x	-	-

p_api_version_number

Used to compare the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_ MSG_ PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

  where 1_message and 1_msg_index_out are local variables of types Varchar2(2000 and Number respectively.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Displays error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_logging_entity_name

Specifies the entity for which we are querying the exception. Valid values are 'DELIVERY', 'TRIP', 'STOP','CONTAINER' and 'DETAIL'.

P_logging_entity_id

This is the entity Id for which the exceptions details are being fetched.

x_exceptions_tab

This is the out parameter where the details of the exception are stored.

The x_exceptions_tab fields are as follows:

Table 5–19 x_exceptions_tab Fields

Parameter	Type	Default Value
exception_id	NUMBER	-
exception_name	VARCHAR2	-
status	VARCHAR2	-

Delivery Details Public Application Program Interface

The Delivery Details Public Application Program Interface (API) is a public API that consists of the following procedures in package **WSH_DELIVERY_DETAILS_PUB**:

Detail_To_Delivery: Enables you to assign/unassign a delivery detail to/from a delivery

Split_Line: Splits a delivery detail into two delivery details with the requested quantity summed up to the original delivery detail.

Update_Shipping_Attributes: Updates a delivery detail with new information, and the **Autocreate_Deliveries** and **Autocreate_Del_Trip** procedures.

> **Note:** The creation of a delivery detail is not provided in the open API since it should be part of the order entry process.

This section describes how to use the Delivery Details Public API and how it functions in Oracle Shipping Execution.

Detail_To_Delivery API Features

The Detail_To_Delivery API has the following features.

The Detail_To_Delivery procedure performs two actions: assign Delivery Details to a Delivery, or unassign Delivery Details from a Delivery.

Functional Overview

This procedure assigns Delivery Details to a Delivery as specified by IN parameter p_action value ASSIGN. If the action is ASSIGN, either the Delivery ID or the Delivery Name need to be specified. It also unassigns Delivery Details from a Delivery based on the IN parameter p_action value UNASSIGN. If the action is UNASSIGN, there is no need to pass a Delivery ID or a Delivery Name as the procedure will just unassign all the Delivery Details from the Deliveries.

For ASSIGN, the procedure checks the Delivery Detail status, Delivery status, group by attributes defined in Shipping Parameters, Ship To Locations and Ship From Locations. If one of the Delivery Details is assigned to a delivery, the procedure continues to the next Delivery Detail, performs ASSIGN action to the Delivery Details which are not already assigned, and returns an error in the return status. The calling procedure decides whether to commit or rollback. ASSIGN is allowed only for the Deliveries in the status of OPEN or PACKED and not planned. Security

rules check if ship-to and ship-from location information and other optional group by attributes are common between delivery details and delivery.

For UNASSIGN, if one of the Delivery Details is unassigned already, return status posts a warning, and the action continues to the next Delivery Detail. To allow UNASSIGN action, the Delivery status must be OPEN and not planned. If there is freight cost for the Delivery Detail, a warning is posted in the return status.

Procedure Parameter Descriptions

WSH_DELIVERY_DETAILS_PUB.DETAIL_TO_DELIVERY

The following chart describes all parameters used by the public procedure WSH_DELIVERY_DETAILS_PUB.DETAIL_TO_DELIVERY. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–20 WSH_DELIVERY_DETAILS_PUB.DETAIL_TO_DELIVERY Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_TabOfDelDets	IN	Table	x
p_action	IN	Varchar2	x
p_delivery_id	OUT	Number	-
p_delivery_name	OUT	Varchar2	-

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Returns error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_TabOfDelDets

Table of Delivery Detail ID's of type WSH_UTIL_CORE.ID_TAB_TYPE which is a table of type Number indexed by binary integers.

p_action

Valid values for the Action are ASSIGN and UNASSIGN.

If the action is ASSIGN, the user needs to pass either the Delivery ID or the Delivery Name to identity which Delivery the Delivery Details are assigned to. If both the Delivery ID and Delivery Name are passed in, only the Delivery ID will be used to identify the Delivery, the Delivery Name will be ignored.

p_delivery_id

The Delivery ID to identify the Delivery, not needed if the action is UNASSIGN.

p_delivery_name

The Delivery Name to identify the Delivery, not needed if the action is UNASSIGN

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Split_Line API Features

The Split_Line API has the following features:

The Split_Line procedure enables you to split a Delivery Detail into two Delivery Details. A Delivery Detail needs to be split when ship partially, or when a backorder occurs.

Functional Overview

This API splits a Delivery Detail into two Delivery Details. Most of the fields in the new Delivery Detail have the same values except that the requested quantity is the split quantity, the shipped quantity is NULL, the backorder quantity is NULL and that the split_from_detail_id points to the original Delivery Detail. After the split, the calling procedure needs to make another call to update the shipped quantity and backordered quantity to complete the whole transaction.

This procedure checks that the Delivery Detail is valid, the split quantity is not greater than the requested quantity before calling WSH_DELIVERY_DETAILS_ACTIONS.Split_Delivery_Details. Most of the validation is performed in WSH_DELIVERY_DETAILS_ACTIONS.Split_Delivery_Details, which checks that the quantity meets the decimal quantity standard.

Procedure Parameter Descriptions

WSH_DELIVERY_DETAILS_PUB.SPLIT_LINE

The following chart describes all parameters used by the public procedure WSH_DELIVERY_DETAILS_PUB.SPLIT_LINE. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–21 WSH_DELIVERY_DETAILS_PUB.SPLIT_LINE Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
p_commit	IN	Varchar2	-
p_validation_level	IN	Number	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-

Table 5–21 WSH_DELIVERY_DETAILS_PUB.SPLIT_LINE Parameters

Parameter	Usage	Type	Required
x_msg_data	OUT	Varchar2	-
p_from_detail_id	IN	Varchar2	x
x_new_detail_id	OUT	Number	-
x_split_quantity	IN OUT	Number	-

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_ MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE.

p_commit

Commits the transaction if this parameter is set to TRUE.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR

- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Returns error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_from_detail_id

The Delivery Detail ID of the line to be split.

x_new_detail_id

Delivery Detail ID of the new line being created after splitting the original line.

x_split_quantity

Quantity out of the original Delivery Detail quantity allocated to the new Delivery Detail created after the split.

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Update_Shipping_Attributes API Features

The Update_Shipping API has the following features:

The Update_Shipping_Attributes procedure enables you to modify data in wsh_delivery_details.

Functional Overview

This procedure is called from the source system to modify data in wsh_delivery_details to reflect any changes made by the source system including pick release, ship confirm, split source line and other update activities.

The procedure validates the input parameters and updates the delivery details.

Procedure Parameter Descriptions

WSH_DELIVERY_DETAILS_PUB.UPDATE_SHIPPING_ATTRIBUTES

The following chart describes all parameters used by the public procedure WSH_DELIVERY_DETAILS_PUB.SPLIT_LINE. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–22 WSH_DELIVERY_DETAILS_PUB.SPLIT_LINE Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_changed_attributes	IN	Record	x
p_source_code	IN	Varchar2	x
p_serial_range_tab	IN	wsh_delivery_details_grp.serialrangetype	-

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE.

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Returns error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_changed_attributes

Attributes of ChangedAttributesTabType that are updated in wsh_delivery_details. WSH_DELIVERY_DETAILS_PUB.ChangedAttributesTabType is a table of ChangedAttributesRecType indexed by Binary_Integer. Definition of ChangedAttributesRecType follows.

p_source_code

Code for source system which updates wsh_delivery_details table. Source system can only update delivery details that are created by the same source system. For Update_Shipping_Attributes this should be OE.

p_serial_range_tab

This is of type WSH_DELIVERY_DETAILS_GRP.serialRangeTabType.

Where, WSH_DELIVERY_DETAILS_GRP.serialRangeTabType is of type

TYPE serialRangeTabType IS TABLE OF serialRangeRecType

INDEX BY BINARY_INTEGER;

Table 5–23 p_serial_range_tab

Attribute	Type	Default Value
delivery_detail_id	NUMBER	NULL
from_serial_number	VARCHAR2	NULL
to_serial_number	VARCHAR2	NULL
quantity	NUMBER	NULL

delivery_detail_id

The delivery detail id for which the serial numbers are entered.

from_serial_number

The starting serial number.

to_serial_number

The ending serial number.

quantity

The serial quantity, between the from_serial_number and the to_serial_number.

Record Parameter Descriptions

ChangedAttributesRecType RECORD DEFINITION

To encapsulate WSH_DELIVERY_DETAILS table definition and Value column equivalents for ID columns in a PL/SQL record, define ChangedAttributesRecType.

Table 5–24 ChangedAttributesRecType RECORD DEFINITION

Attribute	Type	Default Value
source_header_id	Number	fnd_api.g_miss_num
source_line_id	Number	fnd_api.g_miss_num
sold_to_org_id	Number	fnd_api.g_miss_num
customer_number	Number	fnd_api.g_miss_char
sold_to_contact_id	Number	fnd_api.g_miss_num
ship_from_org_id	Number	fnd_api.g_miss_char
ship_from_org_code	Varchar2(3)	fnd_api.g_miss_char
ship_to_org_id	Number	fnd_api.g_miss_ num
ship_to_org_code	Varchar2(3)	fnd_api.g_miss_char
ship_to_contact_id	Number	fnd_api.g_miss_ num
deliver_to_org_id	Number	fnd_api.g_miss_num
deliver_to_org_code	Varchar2(3)	fnd_api.g_miss_char
deliver_to_contact_id	Number	fnd_api.g_miss_ num
intmed_ship_to_org_id	Number	fnd_api.g_miss_num
intmed_ship_to_org_code	Varchar2(3)	fnd_api.g_miss_char
intmed_ship_to_contact_id	Number	fnd_api.g_miss_ num
ship_tolerance_above	Number	fnd_api.g_miss_ num
ship_tolerance_below	Number	fnd_api.g_miss_ num
ordered_quantity	Number	fnd_api.g_miss_ num
ordered_quantity2	Number	fnd_api.g_miss_num
order_quantity_uom	Varchar2(3)	fnd_api.g_miss_char
ordered_quantity_uom2	Varchar2(25)	fnd_api.g_miss_char
ordered_qty_unit_of_measure	Varchar2(25)	fnd_api.g_miss_char
ordered_qty_unit_of_ measure2	Varchar2(25)	fnd_api.g_miss_char
subinventory	Varchar2(10)	fnd_api.g_miss_char
prefered_grade	Varchar2(4)	fnd_api.g_miss_char

Table 5–24 ChangedAttributesRecType RECORD DEFINITION

Attribute	Type	Default Value
revision	Varchar2(3)	fnd_api.g_miss_char
lot_number	Varchar2(30)	fnd_api.g_miss_char
sublot_number	Varchar2(30)	fnd_api.g_miss_char
customer_requested_lot_flag	Varchar2(1)	fnd_api.g_miss_char
serial_number	Varchar2(30)	fnd_api.g_miss_char
locator_id	Number	fnd_api.g_miss_ num
date_requested	Date	fnd_api.g_miss_date
date_scheduled	Date	fnd_api.g_miss_date
master_container_item_id	Number	fnd_api.g_miss_ num
detail_container_item_id	Number	fnd_api.g_miss_ num
shipping_method_code	Varchar2(30)	fnd_api.g_miss_char
carrier_id	Number	fnd_api.g_miss_num
freight_terms_code	Varchar2(30)	fnd_api.g_miss_char
freight_terms_name	Varchar2(30)	fnd_api.g_miss_char
freight_carrier_code	Varchar2(30)	fnd_api.g_miss_char
shipment_priority_code	Varchar2(30)	fnd_api.g_miss_char
fob_code	Varchar2(30)	fnd_api.g_miss_char
fob_name	Varchar2(30)	fnd_api.g_miss_char
dep_plan_required_flag	Varchar2(1)	fnd_api.g_miss_char
customer_prod_seq	Varchar2(50)	fnd_api.g_miss_char
customer_dock_code	Varchar2(30)	fnd_api.g_miss_char
gross_weight	Number	fnd_api.g_miss_num
net_weight	Number	fnd_api.g_miss_num
weight_uom_code	Varchar2(3)	fnd_api.g_miss_char
weight_uom_desc	Varchar2(50)	fnd_api.g_miss_char
volume	Number	fnd_api.g_miss_num
volume_uom_code	Varchar2(3)	fnd_api.g_miss_char

Table 5–24 ChangedAttributesRecType RECORD DEFINITION

Attribute	Type	Default Value
volume_uom_desc	Varchar2(50)	fnd_api.g_miss_char
top_model_line_id	Number	fnd_api.g_miss_num
ship_set_id	Number	fnd_api.g_miss_num
ato_line_id	Number	fnd_api.g_miss_num
arrival_set_id	Number	fnd_api.g_miss_num
ship_model_complete_flag	Varchar2(1)	fnd_api.g_miss_char
cust_po_number	Varchar2(50)	fnd_api.g_miss_char
released_status	Varchar2(1)	fnd_api.g_miss_char
packing_instructions	Varchar2(2000)	fnd_api.g_miss_char
shipping_instructions	Varchar2(2000)	fnd_api.g_miss_char
container_name	Varchar2(50)	fnd_api.g_miss_char
container_flag	Varchar2(1)	fnd_api.g_miss_char
delivery_detail_id	Number	fnd_api.g_miss_num
shipped_quantity	Number	fnd_api.g_miss_num
cycle_count_quantity	Number	fnd_api.g_miss_num
tracking_number	Varchar2(30)	fnd.api.g_miss_char
attribute1	Varchar2(150)	fnd_api.g_miss_char
attribute2	Varchar2(150)	fnd_api.g_miss_char
attribute3	Varchar2(150)	fnd_api.g_miss_char
attribute4	Varchar2(150)	fnd_api.g_miss_char
attribute5	Varchar2(150)	fnd_api.g_miss_char
attribute6	Varchar2(150)	fnd_api.g_miss_char
attribute7	Varchar2(150)	fnd_api.g_miss_char
attribute8	Varchar2(150)	fnd_api.g_miss_char
attribute9	Varchar2(150)	fnd_api.g_miss_char
attribute10	Varchar2(150)	fnd_api.g_miss_char
attribute11	Varchar2(150)	fnd_api.g_miss_char

Table 5–24 ChangedAttributesRecType RECORD DEFINITION

Attribute	Type	Default Value
attribute12	Varchar2(150)	fnd_api.g_miss_char
attribute13	Varchar2(150)	fnd_api.g_miss_char
attribute14	Varchar2(150)	fnd_api.g_miss_char
attribute15	Varchar2(150)	fnd_api.g_miss_char
to_serial_number	Varchar2(30)	fnd_api.g_miss_char

Record Parameter Attribute Validations

source_header_id
Should indicate the source of the header content, for example OM or OKE.

sold_to_org_id
Should be a valid unique element of ra_customers.customer_id.

customer_number
Should be a valid unique element of ra_customers.customer_number.

sold_to_contact_id
Should indicate the person to contact at the sold to location.

ship_from_org_id
Should be a valid element of org_organization_definitions.organization_id.

ship_from_org_code
Should be a valid element of org_organization_definitions.organization_code.

ship_to_org_id
Should be a valid element of org_organization_definitions.organization_id.

ship_to_org_code
Should be a valid element of org_organization_definitions.organization_code.

ship_to_contact_id
Should indicate the person to contact at the ship to location.

deliver_to_org_id
Should be a valid element of org_organization_definitions.organization_id.

deliver_to_org_code
Should be a valid element of org_organization_definitions.organization_code.

deliver_to_contact_id
Should indicate the person to contact at the delivery to location.

intmed_ship_to_org_id
Should be a valid element of org_organization_definitions.organization_id.

intmed_ship_to_org_code
Should be a valid element of org_organization_definitions.organization_code.

intmed_ship_to_contact_id
Should indicate the person to contact at the intermediate ship to location.

ship_tolerance_above
Should be a non-negative number.

ship_tolerance_below
Should be a non-negative number.

ordered_quantity
Should be a non-negative whole number.

ordered_quantity2
Should be a non-negative whole number.

order_quantity_uom
Should be a valid element of mtl_items_uoms_view.uom_code.

ordered_quantity_uom2
Should be a valid element of mtl_items_uoms_view.uom_code.

preferred_grade
Should indicate the preferred grade for the line item.

ordered_qty_unit_of_measure
Should be a valid element of mtl_items_uoms_view.unit_of_measure.

ordered_qty_unit_of_measure2
Should be a valid element of mtl_items_uoms_view.unit_of_measure.

subinventory
Should indicate the subinventory from which the line item is picked.

revision
Should indicate the revision number for the line item.

lot_number
Should indicate the lot number for the line item.

customer_requested_lot_flag
Should indicate that the line item requires a customer requested lot number.

serial_number
Should indicate the serial number for the line item.

locator_id
Should indicate the inventory locator from which the line item is picked.

date_requested
Should indicate the date requested for the line item.

date_scheduled
Should indicate the date scheduled for the line item.

master_container_item_id
Should indicate the master container name into which the line is packed.

detail_container_item_id
Should indicate the parent container name into which the line is packed.

shipping_method_code
Should be a valid element of fnd_lookup_values_vl.lookup_code for lookup_type SHIP_METHOD.

carrier_id
Should indicate the carrier name transporting the line item.

freight_terms_code
Should be a valid element of fnd_lookup_values_vl.lookup_code for lookup_type FREIGHT_TERMS.

freight_terms_name
Should be a valid element of fnd_lookup_values_vl.meaning for lookup_type FREIGHT_TERMS.

freight_carrier_code
Should indicate the freight carrier code for the carrier transporting the line item.

shipment_priority_code
Should indicate the shipment priority assigned to the line item.

fob_code
Should be a valid element of fnd_lookup_values_vl.lookup_code for lookup_type FOB.

fob_name
Should be a valid element of fnd_lookup_values_vl.meaning for lookup_type FOB.

dep_plan_required_flag
Should be Y or N.

customer_prod_seq
Should indicate the customer production sequence number assigned to the line item.

customer_dock_code
Should indicate the customer dock code for the line item.

gross_weight
Should be a non-negative number.

net_weight
Should be a non-negative number.

weight_uom_code
Should be a valid element of mtl_units_of_measure.uom_code for a weight uom class

weight_uom_desc
Should be a valid element of mtl_units_of_measure.unit_of_measure for a weight uom class.

volume
Should be a non-negative number.

volume_uom_code
Should be a valid element of mtl_units_of_measure.uom_code for a volume uom class.

volume_uom_desc
Should be a valid element of mtl_units_of_measure.unit_of_measure for a volume uom class.

top_model_line_id
If the item is included as part of a model, this should indicate the top model line name for the line item.

ship_set_id
If the item is included as part of a ship set, this should indicate the ship set number to which the line item is assigned.

ato_line_id
If the item is included as part of a ATO model, this should indicate the model line name to which the line item is assigned.

arrival_set_id
If the item is included as part of a arrival ship set, this should indicate the arrival set number to which the line item is assigned.

ship_model_complete_flag
Should be Y or N.

cust_po_number
Should indicate the purchase order number for the line item.

released_status
Should be one of R, S, Y, or X.

packing_instructions
Should indicate the packing instructions included for the line item.

shipping_instructions
Should indicate the shipping instructions included for the line item.

container_name
Should indicate the container name of the container.

container_flag
Should indicate that the line item is a container.

delivery_detail_id
Should indicate the delivery detail id for the line.

tracking_number
Should indicate the tracking number for the line item.

shipped_quantity
Should be a non-negative number.

cycle_count_quantity
Should be a non-negative number.

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Autocreate_Deliveries API Features

The Autocreate_Deliveries API has the following features:

The Autocreate_Deliveries procedure is called from the source system to automatically create deliveries for multiple delivery lines.

The procedure checks that the attribute parameters passed in are valid and perform value to ID conversion while validating.

Procedure Parameter Descriptions

WSH_DELIVERY_DETAILS_PUB.AUTOCREATE_DELIVERIES

The following chart describes all parameters used by the public procedure WSH_DELIVERY_DETAILS_PUB.AUTOCREATE_DELIVERIES. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–25 WSH_DELIVERY_DETAILS_PUB.AUTOCREATE_DELIVERIES Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
p_commit	IN	Varchar2	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_line_rows	IN	Table	x
x_del_rows	OUT	Table	-

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initializes the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE.

p_commit

Commits the transaction if this parameter is set to TRUE.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Returns error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_line_rows

Table of Delivery Details of type WSH_UTIL_CORE.ID_TAB_TYPE which is a table of type Number indexed by binary integers.

x_del_rows

Table of Deliveries of type WSH_UTIL_CORE.ID_TAB_TYPE which is a table of type Number indexed by binary integers.

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Autocreate_Del_Trip API Features

The Autocreate_Del_Trip API has the following features:

The Autocreate_Del_Trip procedure is called from the source system to automatically create trips and deliveries for multiple delivery lines.

The procedure also checks that the attribute parameters passed in are valid and perform value to ID conversion while validating.

Procedure Parameter Descriptions

WSH_DELIVERY_DETAILS_PUB.AUTOCREATE_DEL_TRIP

The following chart describes all parameters used by the public procedure WSH_DELIVERY_DETAILS_PUB.AUTOCREATE_DEL_TRIP. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–26 WSH_DELIVERY_DETAILS_PUB.AUTOCREATE_DEL_TRIP Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
p_commit	IN	Varchar2	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_line_rows	IN	Table	x
x_del_rows	OUT	Table	x
x_trip_id	OUT	Number	x
x_trip_name	OUT	Varchar2	x

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE.

p_commit

Commits the transaction if this parameter is set to TRUE.

Default Value: FND_API.G_FALSE.

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Returns error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_line_rows

Table of Delivery Details of type WSH_UTIL_CORE.ID_TAB_TYPE which is a table of type Number indexed by binary integers.

x_del_rows
Table of Deliveries of type WSH_UTIL_CORE.ID_TAB_TYPE which is a table of type Number indexed by binary integers.

x_trip_id
ID of autocreated trip.

x_trip_name
Name of autocreated trip.

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Container Public Application Program Interface

The Container Public Application Program Interface (API) is a public API that consists of the four following procedures in package **WSH_CONTAINER_PUB**:

Create_Container: Enables you to create a new container record.

Update_Container: Updates an existing container record.

Auto_Pack: Lets you autopack containers.

Container_Actions: Enables you to perform certain actions on a container.

This section describes how to use the Container Public API and how it functions in Oracle Shipping Execution.

Create_Container API Features

The Create_Container API has the following features.

The Create_Container procedure takes in a container item id or container item name and other necessary parameters to create one or more containers and creates the required containers. It returns a table of container instance ids (delivery detail ids) along with the standard out parameters.

Functional Overview

This API creates a new container record in WSH_DELIVERY_DETAILS. It Inserts container information into WSH_DELIVERY_DETAILS and returns a table of the newly created container IDs.

Procedure Parameter Descriptions

WSH_CONTAINER_PUB.CREATE_CONTAINERS

The following chart describes all parameters used by the public procedure WSH_CONTAINER_PUB.CREATE_CONTAINERS. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–27 WSH_CONTAINER_PUB.CREATE_CONTAINERS Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-

Table 5–27 WSH_CONTAINER_PUB.CREATE_CONTAINERS Parameters

Parameter	Usage	Type	Required
p_commit	IN	Varchar2	-
p_validation_level	IN	Number	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_container_item_id	IN	Number	-
p_container_item_name	IN	Varchar2	x
p_organization_id	IN	Number	-
p_organization_code	IN	Varchar2	-
p_name_prefix	IN	Varchar2	-
p_name_suffix	IN	Varchar2	-
p_base_number	IN	Number	x
p_num_digits	IN	Number	-
p_quantity	IN	Number	-
p_container_name	IN	Varchar2	-
p_action	IN	Varchar2	-
x_container_ids	OUT	Table	-

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message

- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Returns error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_container_item_id

Key flexfield Id for the container.

p_container_item_name

Flexfield name for the container.

p_organization_id

Organization ID for the container.

p_organization_code

Organization code for the container.

p_name_prefix

Prefix of the container name.

p_name_suffix

Suffix of the container name.

p_name_prefix
Prefix of the container name.

p_base_number
Starting number for the numeric portion of the container name.

p_num_digits
Precision for the number of digits.

p_quantity
Number of containers created.

p_container_name
Container name if creating just one container.

x_container_ids
Table of the newly created container IDs of type WSH_UTIL_CORE.ID_TAB_TYPE which is a table of type Number indexed by binary integers.

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Update Container API Features

The Trip_Action API has the following features:

The Update_Container procedure enables you to update an existing container. It accepts as IN parameters the container information and the name/ID of the container being updated.

Functional Overview

The API updates an existing container record in WSH_DELIVERY_DETAILS with the attributes input in the container rec type. The name or the ID of the container being updated is passed as IN parameters p_container_name and p_cont_instance_id respectively.

The API validates the input record attributes before updating a container record.

Table 5–28 WSH_DELIVERY_DETAILS

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
p_commit	IN	Varchar2	-
p_validation_level	IN	Varchar2	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_container_rec	IN	Record	x

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_MSG_PUB.GET. The values are:

- p_msg_index => I

- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Returns error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_container_rec

Attributes of the container entity of type ChangedAttributeRecType. These attributes are updated in WSH_DELIVERY_DETAILS. Definition of ChangedAttributeRecType follows.

Record Parameter Descriptions

TRIP_STOP_PUB_REC_TYPE RECORD DEFINITION

To encapsulate WSH_DELIVERY_DETAILS table definition and Value column equivalents for ID columns in a PL/SQL record, define ChangedAttributeRecType and use this to pass trip information to the Update_Container routine.

Table 5–29 TRIP_STOP_PUB_REC_TYPE RECORD DEFINITION

Attribute	Type	Default Value
source_header_id	Number	fnd_api.g_miss_num
source_line_id	Number	fnd_api.g_miss_num
sold_to_org_id	Number	fnd_api.g_miss_num
customer_number	Number	fnd_api.g_miss_char
sold_to_contact_id	Number	fnd_api.g_miss_num
ship_from_org_id	Number	fnd_api.g_miss_char
ship_from_org_code	Varchar2(3)	fnd_api.g_miss_char
ship_to_org_id	Number	fnd_api.g_miss_ num
ship_to_org_code	Varchar2(3)	fnd_api.g_miss_char
ship_to_contact_id	Number	fnd_api.g_miss_ num
deliver_to_org_id	Number	fnd_api.g_miss_num
deliver_to_org_code	Varchar2(3)	fnd_api.g_miss_char
deliver_to_contact_id	Number	fnd_api.g_miss_ num
intmed_ship_to_org_id	Number	fnd_api.g_miss_num
intmed_ship_to_org_code	Varchar2(3)	fnd_api.g_miss_char
intmed_ship_to_contact_ id	Number	fnd_api.g_miss_ num
ship_tolerance_above	Number	fnd_api.g_miss_ num
ship_tolerance_below	Number	fnd_api.g_miss_ num
ordered_quantity	Number	fnd_api.g_miss_ num
order_quantity_uom	Varchar2(3)	fnd_api.g_miss_char
ordered_qty_unit_of_ measure	Varchar2(25)	fnd_api.g_miss_char
subinventory	Varchar2(10)	fnd_api.g_miss_char
revision	Varchar2(3)	fnd_api.g_miss_char
lot_number	Varchar2(30)	fnd_api.g_miss_char
customer_requested_lot_ flag	Varchar2(1)	fnd_api.g_miss_char

Table 5–29 TRIP_STOP_PUB_REC_TYPE RECORD DEFINITION

Attribute	Type	Default Value
serial_number	Varchar2(30)	fnd_api.g_miss_char
locator_id	Number	fnd_api.g_miss_ num
date_requested	Date	fnd_api.g_miss_date
date_scheduled	Date	fnd_api.g_miss_date
master_container_item_id	Number	fnd_api.g_miss_ num
detail_container_item_id	Number	fnd_api.g_miss_ num
shipping_method_code	Varchar2(30)	fnd_api.g_miss_char
carrier_id	Number	fnd_api.g_miss_num
freight_terms_code	Varchar2(30)	fnd_api.g_miss_char
freight_terms_name	Varchar2(30)	fnd_api.g_miss_char
freight_carrier_code	Varchar2(30)	fnd_api.g_miss_char
shipment_priority_code	Varchar2(30)	fnd_api.g_miss_char
fob_code	Varchar2(30)	fnd_api.g_miss_char
fob_name	Varchar2(30)	fnd_api.g_miss_char
dep_plan_required_flag	Varchar2(1)	fnd_api.g_miss_char
customer_prod_seq	Varchar2(50)	fnd_api.g_miss_char
customer_dock_code	Varchar2(30)	fnd_api.g_miss_char
gross_weight	Number	fnd_api.g_miss_num
net_weight	Number	fnd_api.g_miss_num
weight_uom_code	Varchar2(3)	fnd_api.g_miss_char
weight_uom_desc	Varchar2(50)	fnd_api.g_miss_char
volume	Number	fnd_api.g_miss_num
volume_uom_code	Varchar2(3)	fnd_api.g_miss_char
volume_uom_desc	Varchar2(50)	fnd_api.g_miss_char
top_model_line_id	Number	fnd_api.g_miss_num
ship_set_id	Number	fnd_api.g_miss_num
ato_line_id	Number	fnd_api.g_miss_num

Table 5–29 TRIP_STOP_PUB_REC_TYPE RECORD DEFINITION

Attribute	Type	Default Value
arrival_set_id	Number	fnd_api.g_miss_num
ship_model_complete_ flag	Varchar2(1)	fnd_api.g_miss_char
cust_po_number	Varchar2(50)	fnd_api.g_miss_char
released_status	Varchar2(1)	fnd_api.g_miss_char
packing_instructions	Varchar2(2000)	fnd_api.g_miss_char
shipping_instructions	Varchar2(2000)	fnd_api.g_miss_char
container_name	Varchar2(50)	fnd_api.g_miss_char
container_flag	Varchar2(1)	fnd_api.g_miss_char
delivery_detail_id	Number	fnd_api.g_miss_num

Record Parameter Attribute Validations

sold_to_org_id
Should be a valid unique element of ra_customers.customer_id.

customer_number
Should be a valid unique element of ra_customers.customer_number

ship_from_org_id
Should be a valid element of org_organization_definitions.organization_id.

ship_from_org_code
Should be a valid element of org_organization_definitions.organization_code.

ship_to_org_id
Should be a valid element of org_organization_definitions.organization_id.

ship_to_org_code
Should be a valid element of org_organization_definitions.organization_code.

delier_to_org_id
Should be a valid element of org_organization_definitions.organization_id.

deliver_to_org_code
Should be a valid element of org_organization_definitions.organization_code.

intmed_ship_to_org_id
Should be a valid element of org_organization_definitions.organization_id.

intmed_ship_to_org_code
Should be a valid element of org_organization_definitions.organization_code.

ship_tolerance_above
Should be a non-negative number.

ship_tolerance_below
Should be a non-negative number.

ordered_quantity
Should be a non-negative whole number.

order_quantity_uom
Should be a valid element of mtl_items_uoms_view.uom_code.

ordered_quantity_unit_of_measure
Should be a valid element of mtl_items_uoms_view.unit_of_measure.

shipping_method_code
Should be a valid element of fnd_lookup_values_vl.lookup_code for lookup_type SHIP_METHOD.

freight_terms_code
Should be a valid element of fnd_lookup_values_vl.lookup_code for lookup_type FREIGHT_TERMS.

freight_terms_name
Should be a valid element of fnd_lookup_values_vl.meaning for lookup_type FREIGHT_TERMS.

fob_code
Should be a valid element of fnd_lookup_values_vl.lookup_code for lookup_type FOB.

fob_name
Should be a valid element of fnd_lookup_values_vl.meaning for lookup_type FOB.

dep_plan_required_flag
Should be Y or N.

gross_weight
Should be a non-negative number.

net_weight
Should be a non-negative number.

weight_uom_code
Should be a valid element of mtl_units_of_measure.uom_code for a weight uom class

weight_uom_desc
Should be a valid element of mtl_units_of_measure.unit_of_measure for a weight uom class.

volume
Should be a non-negative number.

volume_uom_code
Should be a valid element of mtl_units_of_measure.uom_code for a volume uom class.

volume_uom_desc
Should be a valid element of mtl_units_of_measure.unit_of_measure for a volume uom class.

ship_model_complete_flag
Should be Y or N.

released_status
Should be one of R, S, Y or X.

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Auto_Pack API Features

The Auto_Pack API has the following features.

The Auto_Pack procedure takes in a table of ids of either delivery lines or container or deliveries and autopacks the lines/containers/deliveries into detail containers and returns a table of container instance ids created during the autopacking process

Functional Overview

This API takes in a table of ids of either delivery lines or container or deliveries and autopacks the lines/containers/deliveries into detail containers. The grouping id table is used only if the input table of entities are lines or containers only. The packing of lines and containers into parent containers is determined by the grouping id for each line/container.

If the grouping id table is not input, the API determines the grouping ids for the lines/containers based on the grouping attributes of the lines/containers. The lines/containers are then autopacked into detail containers and the detail containers are packed into parent/master containers based on whether the p_pack_cont_flag is set to 'Y' or 'N'. The API returns a table of container instance ids created during the autopacking operation. If the detail containers are packed into parent containers, the output table of ids will contain both the detail and parent containers' delivery detail ids.

Procedure Parameter Descriptions

WSH_CONTAINER_PUB.AUTO_PACK

The following chart describes all parameters used by the public procedure WSH_CONTAINER_PUB.AUTO_PACK. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–30 WSH_CONTAINER_PUB.AUTO_PACK Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
p_commit	IN	Varchar2	-
p_validation_level	IN	Number	-
x_return_status	OUT	Varchar2	-

Table 5–30 WSH_CONTAINER_PUB.AUTO_PACK Parameters

Parameter	Usage	Type	Required
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_entity_tab	IN	Table	-
p_entity_type	IN	Varchar2	x
p_group_id_tab	IN	Table	-
p_pack_cont_flag	IN	Varchar2	-
x_cont_inst_tab	IN	Table	-

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Returns error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_entity_tab

Table of ids of either lines or containers or deliveries that need to be autopacked of type WSH_UTIL_CORE.ID_TAB_TYPE which is a table of type Number indexed by binary integers.

p_entity_type

Type of entity id contained in the entity_tab that needs to be autopacked ('L' - lines, 'C' - containers or 'D' - deliveries).

p_group_id_tab

Table of ids (numbers that determine the grouping of lines for packing into containers) of type WSH_UTIL_CORE.ID_TAB_TYPE which is a table of type Number indexed by binary integers.

p_pack_cont_flag

A 'Y' or 'N' value to determine whether to autopack the detail containers that are created into parent containers.

x_cont_inst_tab

Table of container IDs created during the autopacking process of type WSH_UTIL_CORE.ID_TAB_TYPE which is a table of type Number indexed by binary integers.

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Container_Actions API Features

The Container_Actions API has the following features.

The Container_Actions procedure enables you to carry out actions on a container. It accepts as IN parameters a table of delivery detail ids, an action code, and any additional parameters needed for specific actions, and returns a completion status.

Functional Overview

This API takes in a table of delivery detail ids and name and/or delivery detail id of the container to pack. If the action code is assigned then delivery id and delivery name must be specified. The API determines what action to perform based on the action code and then calls appropriate private pack/assign/unpack/unassign API. The input table of ids could be lines or containers. The delivery lines and containers are separated from the input table and validated before the appropriate private APIs are called.

Procedure Parameter Descriptions

WSH_CONTAINER_PUB.AUTO_PACK

The following chart describes all parameters used by the public procedure WSH_CONTAINER_PUB.CONTAINER_ACTIONS. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–31 WSH_CONTAINER_PUB.CONTAINER_ACTIONS Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
p_commit	IN	Varchar2	-
p_validation_level	IN	Number	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_detail_tab	IN	Table	x
p_container_instance_id	IN	Number	-
p_container_flag	IN	Table	-

Table 5–31 WSH_CONTAINER_PUB.CONTAINER_ACTIONS Parameters

Parameter	Usage	Type	Required
p_delivery_flag	IN	Varchar2	-
p_delivery_id	IN	Number	-
p_delivery_name	IN	Varchar2	-
p_action_code	IN	Varchar2	-

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data
Returns error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_detail_tab
Input table of delivery detail ids of type WSH_UTIL_CORE.ID_TAB_TYPE which is a table of type Number indexed by binary integers.

p_container_instance_id
Delivery detail ID of parent container being packed

p_container_name
Container name if ID is not known

p_container_flag
Y or N depending on whether to unpack or not respectively.

p_delivery_flag
Y or N depending on whether the container needs to be unassigned from a delivery or not respectively.

p_delivery_id
Delivery ID the container is assigned to.

p_delivery_name
Delivery name the container is assigned to.

p_action_code
Action code Pack, Assign, Unpack, or Unassign to specify which action to perform.

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Freight Costs Public Application Program Interface

The Freight Costs Public Application Program Interface (API) is a public API that consists of the following three procedures in package **WSH_FREIGHT_COSTS_PUB**:

Create_Update_Freight_Costs: Enables you to create a new freight cost record and update an existing freight cost record.

Validate_Freight_Cost_Type: Validates that the freight cost type exists.

Delete_Freight_Costs: Enables you to delete a freight cost record.

This section describes how to use the Freight Costs Public API and how it functions in Oracle Shipping Execution.

Create_Update_Freight_Costs API Features

The Create_Update_Freight_Cost API has the following features.

The Create_Update_Freight_Costs procedure enables you to create a new freight cost record or update an existing freight cost record in WSH_FREIGHT_COSTS table. The FREIGHT_COST_ID, and return status of a new freight cost record are passed as OUT parameters, while a freight cost record of freight cost information is passed as an IN parameter.

Functional Overview

This API creates a new freight cost record in WSH_FREIGHT_COSTS as specified by IN parameter p_action_code value CREATE. It inserts the freight cost information into WSH_FREIGHT_COSTS and returns the FREIGHT_COST_ID of the new freight cost record. It also updates an existing freight cost record in WSH_FREIGHT_COSTS as specified by IN parameter p_action_code value UPDATE.

The API validates freight information such as freight cost type, unit amount, conversion rate, and currency before performing the actions of creating or updating a freight cost record. It also checks that the insert or update statements were successful, and if not returns an error.

Also, ensure that only one shipping entity—a trip, stop, delivery, delivery leg, or delivery detail—is passed in to be associated with a freight cost record. Each freight cost must be associated with only one shipping entity.

Procedure Parameter Descriptions

WSH_FREIGHT_COSTS _PUB.CREATE_UPDATE_FREIGHT_COSTS

The following chart describes all parameters used by the public procedure WSH_ FREIGHT_COSTS _PUB.CREATE_UPDATE_FREIGHT_COSTS. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–32 WSH_FREIGHT_COSTS _PUB.CREATE_UPDATE_FREIGHT_COSTS Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_pub_freight_costs	IN OUT	Record	x
p_action_code	IN	Varchar2	x
x_freight_cost_id	OUT	Number	-

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_ MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Returns error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_pub_freight_costs

Attributes of the freight cost entity of type PubFreightCostRecType. These attributes are inserted/updated in WSH_FREIGHT_COSTS. Definition of PubFreightCostRecType follows.

p_action_code

Specifies whether API should create a new freight cost record or update existing freight cost record information based on its values CREATE or UPDATE.

x_freight_cost_id

ID of new freight cost record being created.

Record Parameter Descriptions

PubFreightCostRecType RECORD DEFINITION

To encapsulate WSH_FREIGHT_COSTS table definition and Value column equivalents for ID columns in a PL/SQL record, define PubFreightCostRecType and use this to pass freight cost record information to the Create_Update_Freight_Cost routine.

Table 5–33 PubFreightCostRecType RECORD DEFINITION

Attribute	Type	Default Value
freight_cost_id	Number	fnd_api.g_miss_num
freight_cost_type_id	Number	fnd_api.g_miss_num
unit_amount	Number	fnd_api.g_miss_num
currency_code	Varchar2(15)	fnd_api.g_miss_char
conversion_date	Date	fnd_api.g_miss_date
conversion_rate	Number	fnd_api.g_miss_num
conversion_type_code	Varchar2(30)	fnd_api.g_miss_char
trip_id	Number	fnd_api.g_miss_num
trip_name	Varchar2(30)	fnd_api.g_miss_char
stop_id	Number	fnd_api.g_miss_num
stop_location_id	Number	fnd_api.g_miss_num
planned_dep_date	Date	fnd_api.g_miss_date
delivery_id	Number	fnd_api.g_miss_num
delivery_name	Varchar2(30)	fnd_api.g_miss_char
delivery_leg_id	Number	fnd_api.g_miss_num
delivery_detail_id	Number	fnd_api.g_miss_num
attribute_category	Varchar2(150)	fnd_api.g_miss_char
attribute1	Varchar2(150)	fnd_api.g_miss_char
attribute2	Varchar2(150)	fnd_api.g_miss_char
attribute3	Varchar2(150)	fnd_api.g_miss_char
attribute4	Varchar2(150)	fnd_api.g_miss_char

Table 5–33 PubFreightCostRecType RECORD DEFINITION

Attribute	Type	Default Value
attribute5	Varchar2(150)	fnd_api.g_miss_char
attribute6	Varchar2(150)	fnd_api.g_miss_char
attribute7	Varchar2(150)	fnd_api.g_miss_char
attribute8	Varchar2(150)	fnd_api.g_miss_char
attribute9	Varchar2(150)	fnd_api.g_miss_char
attribute10	Varchar2(150)	fnd_api.g_miss_char
attribute11	Varchar2(150)	fnd_api.g_miss_char
attribute12	Varchar2(150)	fnd_api.g_miss_char
attribute13	Varchar2(150)	fnd_api.g_miss_char
attribute14	Varchar2(150)	fnd_api.g_miss_char
attribute15	Varchar2(150)	fnd_api.g_miss_char
creation_date	Date	fnd_api.g_miss_date
created_by	Number	fnd_api.g_miss_num
last_update_date	Date	fnd_api.g_miss_date
last_updated_by	Number	fnd_api.g_miss_num
last_update_login	Date	fnd_api.g_miss_date
program_application_id	Number	fnd_api.g_miss_num
program_id	Number	fnd_api.g_miss_num
program_update_date	Date	fnd_api.g_miss_date
request_id	Number	fnd_api.g_miss_num
freight_cost_type	Varchar2(30)	fnd_api.g_miss_char
action_code	Varchar2(30)	fnd_api.g_miss_char

Record Parameter Attribute Validations

freight_cost_id

Should be a unique valid element of wsh_freight_cost_types.freight_cost_id.

freight_cost_type_id
Should be a valid element of wsh_freight_cost_types.freight_cost_type_id.

unit_amount
Should be a non-negative number.

currency_code
Should be a valid element of fnd_currencies_vl.currency_code.

conversion_rate
Should be a non-negative number.

trip_id
Should be a valid unique element of wsh_trips.trip_id.

trip_name
Should be a valid unique element of wsh_trips.name

stop_id
Should be a valid unique element of wsh_trip_stops.stop_id.

stop_location_id
Should be a valid element of wsh_trip_stops.stop_location_id.

planned_dep_date
Should be a valid element of wsh_trip_stops.planned_departure_date.

delivery_id
Should be a valid unique element of wsh_new_deliveries.delivery_id.

delivery_name
Should be a valid unique element of wsh_new_deliveries.name

delivery_leg_id
Should be a valid element of wsh_delivery_legs.delivery_leg_id.

delivery_detail_id

Should be a valid element of wsh_delivery_details.delivery_detail_id.

freight_cost_type

Should be a valid element of wsh_freight_cost_types.name.

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Validate_Freight_Cost_Type API Features

The Validate_Freight_Cost_Type API has the following features.

The Validate_Freight_Cost_Type procedure enables you to validate an existing freight cost type from the WSH_FREIGHT_COST_TYPES table. The freight cost type is passed as an IN parameter, while the freight cost id and a return status are passed as an OUT parameter.

Procedure Parameter Descriptions

WSH_FREIGHT_COSTS _PUB.DELETE_FREIGHT_COSTS

The following chart describes all parameters used by the public procedure WSH_ FREIGHT_COSTS _PUB.DELETE_FREIGHT_COSTS. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–34 WSH_FREIGHT_COSTS _PUB.DELETE_FREIGHT_COSTS Parameters

Parameter	Usage	Type	Required
p_freight_cost_type	IN	Varchar2	x
x_freight_cost_type_id	IN OUT	Varchar2	-
x_return_status	OUT	Varchar2	-

p_freight_cost_type

Freight coat type that needs to be validated.

x_freight_cost_type_id

Type Id of the freight cost being validated.

x_return_status

Requests that the API return the status of the data for you after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR.

Delete_Freight_Costs API Features

The Delete_Freight_Costs API has the following features.

The Delete_Freight_Costs procedure enables you to delete an existing freight cost record from the WSH_FREIGHT_COSTS table. A freight cost record of freight cost information of the freight cost record being deleted is passed as an IN parameter.

Functional Overview

The Delete_Freight_Costs procedure enables you to delete a new freight cost record from WSH_FREIGHT_COSTS table. It identifies the freight record being deleted by using the freight_cost_id attribute in the freight cost record that is being passed as an IN parameter.

Procedure Parameter Descriptions

WSH_FREIGHT_COSTS _PUB.DELETE_FREIGHT_COSTS

The following chart describes all parameters used by the public procedure WSH_ FREIGHT_COSTS _PUB.DELETE_FREIGHT_COSTS. All of the inbound and outbound parameters are listed. Additional information on these parameters follows.

Table 5–35 WSH_FREIGHT_COSTS _PUB.DELETE_FREIGHT_COSTS Parameters

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	-
x_return_status	OUT	Varchar2	-
x_msg_count	OUT	Number	-
x_msg_data	OUT	Varchar2	-
p_pub_freight_costs	IN OUT	Record	x

p_api_version_number

Compares the incoming API call's version number with the current version number. An error is returned if the version numbers are incompatible.

p_init_msg_list

Requests that the API initialize the message list on your behalf. If the x_msg_count is greater than 1, then the list of messages must be retrieved using the call FND_MSG_PUB.GET. The values are:

- p_msg_index => I
- p_encoded => F
- p_data => 1_message
- p_msg_index_out => 1_msg_index_out

where 1_message and 1_msg_index_out are local variables of types Varchar2(2000) and Number respectively.

Default Value: FND_API.G_FALSE

x_return_status

Requests that the API return the status of the data after it completes its function. Valid values include:

- Success: FND_API.G_RET_STS_SUCCESS
- Error: FND_API.G_RET_STS_ERROR
- Unexpected Error: FND_API.G_RET_STS_UNEXP_ERROR

x_msg_count

Indicates number of error messages API has encountered.

x_msg_data

Returns error message text. If the x_msg_count is equal to 1, then this contains the actual message.

p_pub_freight_costs

Attributes of the freight cost entity of type PubFreightCostRecType. These attributes are inserted/updated in WSH_FREIGHT_COSTS. Definition of PubFreightCostRecType follows.

Record Parameter Descriptions

PubFreightCostRecType RECORD DEFINITION

To encapsulate WSH_FREIGHT_COSTS table definition and Value column equivalents for ID columns in a PL/SQL record, we define PubFreightCostRecType and use this to pass Freight Cost information to the Delete_Freight_Cost routine.

Table 5–36 PubFreightCostRecType RECORD DEFINITION

Attribute	Type	Default Value
freight_cost_id	Number	fnd_api.g_miss_num
freight_cost_type_id	Number	fnd_api.g_miss_num
unit_amount	Number	fnd_api.g_miss_num
currency_code	Varchar2(15)	fnd_api.g_miss_char
conversion_date	Date	fnd_api.g_miss_date
conversion_rate	Number	fnd_api.g_miss_num
conversion_type_code	Varchar2(30)	fnd_api.g_miss_char
trip_id	Number	fnd_api.g_miss_num
trip_name	Varchar2(30)	fnd_api.g_miss_char
stop_id	Number	fnd_api.g_miss_num
stop_location_id	Number	fnd_api.g_miss_num
planned_dep_date	Date	fnd_api.g_miss_date
delivery_id	Number	fnd_api.g_miss_num
delivery_name	Varchar2(30)	fnd_api.g_miss_char
delivery_leg_id	Number	fnd_api.g_miss_num
delivery_detail_id	Number	fnd_api.g_miss_num
attribute_category	Varchar2(150)	fnd_api.g_miss_char
attribute1	Varchar2(150)	fnd_api.g_miss_char
attribute2	Varchar2(150)	fnd_api.g_miss_char
attribute3	Varchar2(150)	fnd_api.g_miss_char
attribute4	Varchar2(150)	fnd_api.g_miss_char

Table 5–36 PubFreightCostRecType RECORD DEFINITION

Attribute	Type	Default Value
attribute5	Varchar2(150)	fnd_api.g_miss_char
attribute6	Varchar2(150)	fnd_api.g_miss_char
attribute7	Varchar2(150)	fnd_api.g_miss_char
attribute8	Varchar2(150)	fnd_api.g_miss_char
attribute9	Varchar2(150)	fnd_api.g_miss_char
attribute10	Varchar2(150)	fnd_api.g_miss_char
attribute11	Varchar2(150)	fnd_api.g_miss_char
attribute12	Varchar2(150)	fnd_api.g_miss_char
attribute13	Varchar2(150)	fnd_api.g_miss_char
attribute14	Varchar2(150)	fnd_api.g_miss_char
attribute15	Varchar2(150)	fnd_api.g_miss_char
creation_date	Date	fnd_api.g_miss_date
created_by	Number	fnd_api.g_miss_num
last_update_date	Date	fnd_api.g_miss_date
last_updated_by	Number	fnd_api.g_miss_num
last_update_login	Date	fnd_api.g_miss_date
program_application_id	Number	fnd_api.g_miss_num
program_id	Number	fnd_api.g_miss_num
program_update_date	Date	fnd_api.g_miss_date
request_id	Number	fnd_api.g_miss_num
freight_cost_type	Varchar2(30)	fnd_api.g_miss_char
action_code	Varchar2(30)	fnd_api.g_miss_char

Record Parameter Attribute Validations

freight_cost_id

Should be a valid element of wsh_freight_cost_types.freight_cost_id.

freight_cost_type_id
Should be a valid element of wsh_freight_cost_types.freight_cost_type_id.

unit_amount
Should be a non-negative number.

currency_code
Should be a valid element of fnd_currencies_vl.currency_code.

conversion_rate
Should be a non-negative number.

trip_id
Should be a valid unique element of wsh_trips.trip_id.

trip_name
Should be a valid unique element of wsh_trips.name

stop_id
Should be a valid unique element of wsh_trip_stops.stop_id.

stop_location_id
Should be a valid element of wsh_trip_stops.stop_location_id.

planned_dep_date
Should be a valid element of wsh_trip_stops.planned_departure_date.

delivery_id
Should be a valid unique element of wsh_new_deliveries.delivery_id.

delivery_name
Should be a valid unique element of wsh_new_deliveries.name

delivery_leg_id
Should be a valid element of wsh_delivery_legs.delivery_leg_id.

delivery_detail_id
Should be a valid element of wsh_delivery_details.delivery_detail_id.

freight_cost_type
Should be a valid element of wsh_freight_cost_types.name.

Error Handling

Refer to parameters p_init_msg_list, x_msg_count, and x_msg_data on retrieving error messages.

Migration from Open Interfaces to Public APIs

Overview

This section provides information about migrating your shipment process from the Releases 10.7 and 11 Delivery-based Ship Confirm Open Interface to the Release 11*i* public APIs. It contains the following:

- A description of the Release 11 Ship Confirm open interface process.
- A description of the Release 11*i* ship confirm process using APIs.
- Mapping details from Release 11 open interface to Release 11*i* APIs.
- An illustration of the Release 11*i* APIs.

Releases 10.7 and 11 Ship Confirm Open Interface

The Delivery-based Ship Confirm open interface loads external shipping data into Oracle Shipping Execution tables and closes the delivery without using the Ship Confirm-Delivery or Ship Confirm-Departure user interfaces.

The Delivery-based Ship Confirm open interface process is:

1. Enter data in the delivery, packed containers, picking line details, and freight charges interface tables via an external device, for example, a bar code reader.
2. Run the Delivery-based Ship Confirm Open Interface concurrent process from the Standard Request Submission user interface.
3. Check the interface tables for errors during processing then modify and resubmit them or remove them. The open interface removes successful transactions from the interface tables and leaves transactions with errors.

Release 11*i* Ship Confirm Using Public APIs

Shipping public APIs load external shipping data into Oracle Shipping Execution tables and close the delivery without using the Shipping Transaction Form.

The Shipping Execution public API process is :

1. Call WSH_DELIVERY_DETAILS_PUB.UPDATE_SHIPPING_ATTRIBUTES to modify data in WSH DELIVERY DETAILS. Setting the parameters of this API is similar to populating the WSH_PICKING_DETAILS_INTERFACE table in Release 11.

2. Call WSH_FREIGHT_COSTS_PUB.CREATE_UPDATE_FREIGHT_COSTS to create or update freight cost records in WSH_FREIGHT_COSTS. Setting the parameters of this API is similar to populating the WSH_FREIGHT_CHARGES_INTERFACE table in Release 11.
3. Call WSH_CONTAINER_PUB.CREATE_CONTAINERS to update the container information. Setting the parameters of this API is similar to populating the WSH_PACKED_CONTAINER_INTERFACE table.
4. Call WSH_DELIVERIES_PUB.CONFIRM_DELIVERY to carry out different actions on the delivery and WSH_DELIVERIES_PUB.CREATE_UPDATE_DELIVERY to update the delivery information. Setting the parameters of these APIs is similar to populating the WSH_DELIVERIES_INTERFACE table.

This table relates Release 11 open interface tables to Release 11*i* public APIs.

Table 5–37 Open Interface and Public API Comparison

Release 11 Interface Tables	Release 11*i* Public API
WSH_PICKING_DETAILS_INTERFACE	WSH_DELIVERY_DETAILS_PUB.UPDATE_SHIPPING_ATTRIBUTES
WSH_FREIGHT_CHARGES_INTERFACE	WSH_FREIGHT_COSTS_PUB.CREATE_UPDATE_FREIGHT_COSTS
WSH_PACKED_CONTAINER_INTERFACE	WSH_CONTAINER_PUB.CREATE_CONTAINERS
WSH_DELIVERIES_INTERFACE	WSH_DELIVERIES_PUB.DELIVERY_ACTION and WSH_DELIVERIES_PUB.CREATE_UPDATE_DELIVERY

In Release 11*i*, you do not need to populate any interface tables or to launch any concurrent program to load data into interface tables.

WSH_CONTAINER_PUB.CREATE_CONTAINERS creates a container (LPN). To pack a delivery detail with a container call WSH_CONTAINER_PUB.container_actions.

Ship Confirm Mapping

This section details mapping of Release 11 DBSCOI interface tables and columns to the Release 11*i* Shipping public API parameters.

WSH_DELIVERY_DETAILS_PUB.UPDATE_SHIPPING_ATTRIBUTES

WSH_DELIVERY_DETAILS_PUB.UPDATE_SHIPPING_ATTRIBUTES is called from the source system to modify data in WSH_DELIVERY_DETAILS and is detailed in another section of this chapter.

A key parameter is p_changed_attributes which:

- It is of type WSH_DELIVERY_DETAILS_PUB.ChangedAttrributesTabType
- Is a table of ChangedAttributesRecType indexed by Binary_Integer.
- Specifies the modifications for the WSH_DELIVERY_DETAILS table.

This chart shows the mapping between the columns in WSH_PICKING_DETAILS_INTERFACE table (from Release 11) and the parameters of ChangedAttributesRecType.

Table 5–38 UPDATE_SHIPPING_ATTRIBUTES Mapping

WSH_PICKING_DETAILS_INTERFACE Column	ChangedAttributesRecType Parameters
TRANSACTION_ID	-
PROCESS_FLAG	-
PICKING_LINE_DETAIL_ID	DELIVERY_DETAIL_ID
SOURCE_CODE	-
SOURCE_HEADER_ID	SOURCE_HEADER_ID
TRANSACTION_MODE	-
TRANSACTION_TYPE_ID	-
INVENTORY_ITEM_ID	-
WAREHOUSE_ID	-
SUBINVENTORY	SUBINVENTORY
LOT_NUMBER	LOT_NUMBER
REVISION	REVISION
LOCATOR_ID	LOCATOR_ID
SERIAL_NUMBER	SERIAL_NUMBER
SHIPPED_QUANTITY	SHIPPED_QUANTITY

Table 5–38 UPDATE_SHIPPING_ATTRIBUTES Mapping

WSH_PICKING_DETAILS_INTERFACE Column	ChangedAttributesRecType Parameters
-	CYCLE_COUNT_QUANTITY (This specifies the backorder quantity at ship confirm; the quantity not shipped backordered becomes staged. This must be added when you enter Shipped Quantity).
TRANSACTION_UOM	-
TRANSACTION_DATE	-
ATTRIBUTE_CATEGORY	ATTRIBUTE_CATEGORY
ATTRIBUTE1-15	ATTRIBUTE1-15
CREATED_BY	-
CREATION_DATE	-
LAST_UPDATED_BY	-
LAST_UPDATE_DATE	-
LAST_UPDATE_LOGIN	-
ERROR_EXPLANATION	-
ERROR_CODE	-
CONTAINER_SEQUENCE	-
CONTAINER_ID	-

WSH_DELIVERIES_PUB.DELIVERY_ACTION

WSH_DELIVERIES_PUB.DELIVERY_ACTION is called to carry out different actions on a delivery and is described in another section of this chapter. The important parameters specify the action to be performed on the delivery; they are p_action_code and p_sc_action_flag.

WSH_DELIVERIES_INTERFACE

WSH_DELIVERIES_INTERFACE has some columns which indicate the action to be performed on the delivery and some columns which update the delivery information, such as Waybill Number and attributes.

WSH_DELIVERIES_PUB.DELIVERY_ACTION and CREATE_UPDATE_DELIVERY

WSH_DELIVERIES_PUB.DELIVERY_ACTION is to be called to perform an action on the delivery and WSH_DELIVERIES_PUB.CREATE_UPDATE_DELIVERY is called to update the delivery information. Parameter p_delivery_info of CREATE_UPDATE_DELIVERY specifies the updates for WSH_NEW_DELIVERIES.

This chart shows the mapping between the columns in WSH_DELIVERIES_INTERFACE table (from Release 11) and the parameters to the procedure WSH_DELIVERIES_PUB.DELIVERY_ACTION.

Table 5–39 DELIVERY_ACTION Mapping

WSH_DELIVERIES_INTERFACE	WSH_DELIVERIES_PUB.DELIVERY_ACTION Parameters
TRANSACTION_ID	-
PROCESS_FLAG	-
REQUEST_ID	-
DELIVERY_ID	P_delivery_id
DELIVERY_NAME	P_delivery_name
ORGANIZATION_ID	-
ORGANIZATION_CODE	-
ACTION_CODE	P_action_code, p_sc_action_flag
REPORT_SET_ID	P_sc_report_set_id
REPORT_SET	P_sc_report_set_name
DATE_CLOSED	P_sc_actual_dep_date
SEQUENCE_NUMBER	-
CUSTOMER_ID	-
CUSTOMER_NUMBER	-

This chart shows the mapping between the columns in WSH_DELIVERIES_INTERFACE table (from Release 11) and the parameters to the procedure WSH_DELIVERIES_PUB.CREATE_UPDATE_DELIVERY.

Table 5–40 CREATE_UPDATE_DELIVERY Mapping

WSH_DELIVERIES_INTERFACE	p_delivery_info (DELIVERY_PUB_REC_TYPE) Attribute
LOADING_ORDER_FLAG	Loading_order_flag
LOADING_ORDER_DESC	Loading_order_desc
FREIGHT_CARRIER_CODE	Carrier_code
ULTIMATE_SHIP_TO_ID	Ultimate_dropoff_location_id
FREIGHT_TERMS_CODE	Freight_terms_code
CURRENCY_CODE	Currency_code
CURRENCY_NAME	Currency_name
FOB_CODE	Fob_code
ERROR_EXPLANATION	-
ERROR_CODE	-
ACTION_CODE	-
INTERMEDIATE_SHIP_TO_ID	Intmed_ship_to_location_id
POOLED_SHIP_TO_ID	Pooled_ship_to_location_id
WAYBILL_NUM	Waybill
GROSS_WEIGHT	Gross_weight
WEIGHT_UOM_CODE	Weight_uom_code
WEIGHT_UNIT_OF_MEASURE	-
VOLUME	Volume
VOLUME_UOM_CODE	Volume_uom_code
VOLUME_UNIT_OF_MEASURE	-
PICKED_BY_ID	-
ATTRIBUTE_CATEGORY	Attribute_category
ATTRIBUTE1-15	Attribute1-15
CLOBAL_ATTRIBUTE_ CATEGORY	global_attribute_category
GLOBAL_ATTRIBUTE1-15	Global_attribute1-15

Action Codes

This chart shows the mapping between the Release 11 action codes and the Release 11*i* public API parameters of WSH_DELIVERIES_PUB.DELIVERY_ACTION.

Table 5–41 WSH_DELIVERIES_PUB.DELIVERY_ACTION Parameters

R11 Action Code	R11 Description	R11*i* P_action_ code	R11*i* P_sc_action_ flag	R11*i* Other Parameters
NULL	Do not perform ship confirm	-	-	-
1	PACK ENTERED , UNASSIGN REMAINDER	PACK	-	-
2	PACK ALL, UNASSIGN REMAINDER	PACK	-	-
3	SHIP ENTERED, UNASSIGN REMAINDER	CONFIRM	B	cycle_count_ quantity (of ChangedAttributesRecType) = 0 (Refer to the UPDATE_ SHIPPING_ ATTRIBUTES Mapping table for details on cycle_count_ quantity), p_sc_ stage_delivery = N
4	SHIP ALL, UNASSIGN REMAINDER	CONFIRM	A	-
5	BACKORDER ALL	CONFIRM	C	-
6	SHIP ENTERED, CLOSE DEPARTURE	CONFIRM	B	cycle_count_ quantity (of ChangedAttributesRecType) = 0, p_sc_stage_ delivery = N, p_ sc_close_trip_flag = Y

Table 5–41 WSH_DELIVERIES_PUB.DELIVERY_ACTION Parameters

R11 Action Code	R11 Description	R11*i* P_action_ code	R11*i* P_sc_action_ flag	R11*i* Other Parameters
7	SHIP ALL, CLOSE DEPARTURE	CONFIRM	A	p_sc_close_trip_ flag = Y
8	BACKORDER ALL, CLOSE DEPARTURE	CONFIRM	C	p_sc_close_trip_ flag = Y
9	PACK ENTERED	-	-	-
10	PACK ALL	PACK	-	-
11	SHIP ENTERED , BACKORDER REMAINDER	CONFIRM	B	-
12	SHIP ALL, BACKORDER REMAINDER	CONFIRM	A	-
13	SHIP ENTERED, CLOSE DEPARTURE, BACKORDER REMAINDER	CONFIRM	B	p_sc_close_trip_ flag= Y

In Release 11, if you populate data only in WSH_DELIVERIES_INTERFACE with action code 3, the entire quantity in all the WSH_PICKING_DETAILS is backordered. If the shipped quantity is not specified in WSH_PICKING_DETAILS_ INTERFACE, the entire quantity is backordered.

In Release 11*i*, you can control the action to be taken on unspecified quantities. If there is no call to UPDATE_SHIPPING_ATTRIBUTES before confirming the delivery, the shipped quantity is not specified. However, you can control the actions taken on unspecified quantities through the parameter p_sc_action_flag of WSH_ DELIVERIES_PUB.DELIVERY_ACTION.

The data model for containers in Release 11 and Release 11*i* is different. In Release 11, the packed containers have an entry in WSH_PACKED_CONTAINERS with the quantity. In Release 11*i*, the container information in stored in WSH_DELIVERY_ DETAILS and this table does not have a quantity field. If a delivery details requires two containers then the process creates two container instances and splits the delivery details.

In Release 11*i*, the auto-packing feature does packing based on the defaults. For more information, see *Oracle Shipping Execution User's Guide*.

In Release 11, the data elements ultimate_ship_to_id, intermediate_ship_to_id, and pooled_ship_to_id_locations are the site use IDs. In Release 11*i*, these data elements correspond to the location IDs and you need to pass the location IDs. Generally, ship from (internal) locations have location_code and ship to (external) locations need location_id.

Example of Shipping Execution Public APIs

This example shows:

- A delivery detail for which we ship one and backorder the remainder.
- A delivery detail for which we backorder the entire quantity.backordered.
- A delivery detail for which we ship partially and unassign the remaining quantity without backordering (action code 3).

Package Specification

```
Create or replace package WSH_SHIP_API as
procedure SHIP_CONFIRM_EXAMPLE1(
x_return_status OUT VARCHAR2,
x_msg_count OUT NUMBER,
x_msg_data OUT VARCHAR2);
END WSH_SHIP_API;
/
```

Package Body

```
Create or replace package body WSH_SHIP_API as
/*
Example 1:
This procedure can be used as an example on how to ship confirm a delivery
consisting of delivery details that have already been pick released and assigned
to a delivery.
 Call WSH_DELIVERY_DETAILS_PUB.Update_Shipping_Attributes API to
update the corresponding delivery details to ship partial quantity and backorder
the remaining qty.
 Call WSH_FREIGHT_COSTS_PUB.Create_Update_Freight_Costs API to
create freight costs for the delivery that the details have been
assigned to.
 Call WSH_CONTAINER_PUB.Auto_Pack to pack the delivery lines into
a container.
 Call WSH_DELIVERIES_PUB.Delivery_Action API to ship confirm the
delivery.
*/
```

```
procedure SHIP_CONFIRM_EXAMPLE(
    x_return_status OUT VARCHAR2,
    x_msg_count OUT NUMBER,
    x_msg_data OUT VARCHAR2) IS
/*
--Standard Parameters.
p_api_version_number NUMBER;
init_msg_list VARCHAR2(30);
x_msg_details VARCHAR2(3000);
x_msg_summary VARCHAR2(3000);
p_validation_level NUMBER;
p_commit VARCHAR2(30);

--Parameters for WSH_DELIVERY_DETAILS_PUB.Update_Shipping_Attributes.
source_code VARCHAR2(15);
changed_attributes WSH_DELIVERY_DETAILS_PUB.ChangedAttributeTabType;

--Parameters for WSH_CONTAINER_PUB.Auto_Pack.
p_entity_tab WSH_UTIL_CORE.id_tab_type;
p_entity_type VARCHAR2(30);
p_group_id_tab WSH_UTIL_CORE.id_tab_type;
p_pack_cont_flag varchar2(30);
x_cont_inst_tab WSH_UTIL_CORE.id_tab_type;

--Parameters for WSH_FREIGHT_COSTS_PUB.Create_Update_Freight_Costs.
action_code VARCHAR2(15);
pub_freight_costs WSH_FREIGHT_COSTS_PUB.PubFreightCostRecType;
freight_cost_id NUMBER;

--Parameters for WSH_DELIVERIES_PUB.Delivery_Action.
p_action_code VARCHAR2(15);
p_delivery_id NUMBER;
p_delivery_name VARCHAR2(30);
p_asg_trip_id NUMBER;
p_asg_trip_name VARCHAR2(30);
p_asg_pickup_stop_id NUMBER;
p_asg_pickup_loc_id NUMBER;
p_asg_pickup_loc_code VARCHAR2(30);
p_asg_pickup_arr_date DATE;
p_asg_pickup_dep_date DATE;
p_asg_dropoff_stop_id NUMBER;
p_asg_dropoff_loc_id NUMBER;
p_asg_dropoff_loc_code VARCHAR2(30);
p_asg_dropoff_arr_date DATE;
```

```
p_asg_dropoff_dep_date DATE;
p_sc_action_flag VARCHAR2(10);
p_sc_intransit_flag VARCHAR2(10);
p_sc_close_trip_flag VARCHAR2(10);
p_sc_create_bol_flag VARCHAR2(10);
p_sc_stage_del_flag VARCHAR2(10);
p_sc_trip_ship_method VARCHAR2(30);
p_sc_actual_dep_date VARCHAR2(30);
p_sc_report_set_id NUMBER;
p_sc_report_set_name VARCHAR2(60);
p_wv_override_flag VARCHAR2(10);
x_trip_id VARCHAR2(30);
x_trip_name VARCHAR2(30);

/*Handle exceptions*/
fail_api EXCEPTION;


BEGIN

/* Initialize return status*/
x_return_status := WSH_UTIL_CORE.G_RET_STS_SUCCESS;

/* Call this procedure to initialize applications parameters. To determine
parameter values, refer to the Application Paramater Initialization section of
this chapter. */
FND_GLOBAL.APPS_INITIALIZE(user_id => 1001594
                      ,resp_id =>52892
                      ,resp_appl_id =>660);

/* Values for updating delivery details to ship the partial qty.
*/

source_code := 'OE'; -- The only source code that should be used by the API

/* The values to be set for action_code 11*/
changed_attributes(1).delivery_detail_id := 13431;
changed_attributes(1).shipped_quantity := 1;

/* The second Delivery Detail that needs to be backordered */
changed_attributes(2).delivery_detail_id := 13432;
changed_attributes(2).shipped_quantity := 0;


/* The corresponding values to be set for action_code 3 are
```

```
changed_attributes(1).delivery_detail_id := <del_detail_id>;
changed_attributes(1).shipped_quantity := 1;
changed_attributes(1).cycle_count_quantity := 0;
*/


--Call to WSH_DELIVERY_DETAILS_PUB.Update_Shipping_Attributes.

WSH_DELIVERY_DETAILS_PUB.Update_Shipping_Attributes(
    p_api_version_number => 1.0,
    p_init_msg_list => init_msg_list,
    p_commit => p_commit,
    x_return_status => x_return_status,
    x_msg_count => x_msg_count,
    x_msg_data => x_msg_data,
    p_changed_attributes => changed_attributes,
    p_source_code => source_code);

if (x_return_status <> WSH_UTIL_CORE.G_RET_STS_SUCCESS) then
    raise fail_api;
end if;

/*Assign Values to the Parameters for creating the freight costs.*/

pub_freight_costs.freight_cost_type_id := 1;
pub_freight_costs.unit_amount := 20;
pub_freight_costs.currency_code := 'USD';
pub_freight_costs.delivery_id := 5341;


--Call to WSH_FREIGHT_COSTS_PUB.Create_Update_Freight_Costs.

WSH_FREIGHT_COSTS_PUB.Create_Update_Freight_Costs(
    p_api_version_number => 1.0,
    p_init_msg_list => init_msg_list,
    p_commit => p_commit,
    x_return_status => x_return_status,
    x_msg_count => x_msg_count,
    x_msg_data => x_msg_data,
    p_pub_freight_costs => pub_freight_costs,
    p_action_code => 'CREATE',
    x_freight_cost_id => freight_cost_id);

if (x_return_status <> WSH_UTIL_CORE.G_RET_STS_SUCCESS) then
raise fail_api;
```

```
end if;

/* Values for autopacking the delivery details to a container.
*/
p_entity_tab(1) := 13431;
p_entity_tab(2) := 13432;
p_entity_tab(3) := 13434;
--Call to WSH_CONTAINER_PUB.Auto_Pack
WSH_CONTAINER_PUB.Auto_Pack(
p_api_version => 1.0,
p_init_msg_list => init_msg_list,
p_commit => p_commit,
p_validation_level => p_validation_level,
x_return_status => x_return_status,
x_msg_count => x_msg_count,
x_msg_data => x_msg_data,
p_entity_tab => p_entity_tab,
p_entity_type => 'L',
p_group_id_tab => p_group_id_tab,
p_pack_cont_flag => p_pack_cont_flag,
x_cont_inst_tab => x_cont_inst_tab);
if (x_return_status <> WSH_UTIL_CORE.G_RET_STS_SUCCESS) then
raise fail_api;
end if;

/* Values for Ship Confirming the delivery.
*/
p_action_code := 'CONFIRM'; -- The action code for ship confirm
p_delivery_id := 5341; -- The delivery that needs to be confirmed
p_delivery_name := '5341'; -- The delivery name,
p_sc_action_flag := 'S'; -- Ship entered quantity.

/* Values to be set for action code 3 are
*/
p_action_code := 'CONFIRM'; -- The action code for ship confirm
p_delivery_id := <delivery_id>; -- The delivery that needs to be confirmed
p_delivery_name := <delivery_name>; -- The delivery name,
p_sc_action_flag := 'S'; -- Ship entered quantity.
P_sc_stage_del_flag := 'N'; --
p_sc_trip_ship_method := 'GROUND'; -- The ship method code


/*Call to WSH_DELIVERIES_PUB.Delivery_Action. */
```

```
WSH_DELIVERIES_PUB.Delivery_Action(
p_api_version_number => 1.0,
p_init_msg_list => init_msg_list,
x_return_status => x_return_status,
x_msg_count => x_msg_count,
x_msg_data => x_msg_data,
p_action_code => p_action_code,
p_delivery_id => p_delivery_id,
p_delivery_name => p_delivery_name,
p_asg_trip_id => p_asg_trip_id,
p_asg_trip_name => p_asg_trip_name,
p_asg_pickup_stop_id => p_asg_pickup_stop_id,
p_asg_pickup_loc_id => p_asg_pickup_loc_id,
p_asg_pickup_loc_code => p_asg_pickup_loc_code,
p_asg_pickup_arr_date => p_asg_pickup_arr_date,
p_asg_pickup_dep_date => p_asg_pickup_dep_date,
p_asg_dropoff_stop_id => p_asg_dropoff_stop_id,
p_asg_dropoff_loc_id => p_asg_dropoff_loc_id,
p_asg_dropoff_loc_code => p_asg_dropoff_loc_code,
p_asg_dropoff_arr_date => p_asg_dropoff_arr_date,
p_asg_dropoff_dep_date => p_asg_dropoff_dep_date,
p_sc_action_flag => p_sc_action_flag,
p_sc_intransit_flag => p_sc_intransit_flag,
p_sc_close_trip_flag => p_sc_close_trip_flag,
p_sc_create_bol_flag => p_sc_create_bol_flag,
p_sc_stage_del_flag => p_sc_stage_del_flag,
p_sc_trip_ship_method => p_sc_trip_ship_method,
p_sc_actual_dep_date => p_sc_actual_dep_date,
p_sc_report_set_id => p_sc_report_set_id,
p_sc_report_set_name => p_sc_report_set_name,
p_wv_override_flag => p_wv_override_flag,
x_trip_id => x_trip_id,
x_trip_name => x_trip_name);
if (x_return_status <> WSH_UTIL_CORE.G_RET_STS_SUCCESS) then
raise fail_api;
end if;

exception
when fail_api then
WSH_UTIL_CORE.get_messages('Y', x_msg_summary, x_msg_details, x_msg_count);
if x_msg_count > 1 then
    x_msg_data := x_msg_summary || x_msg_details;
else
    x_msg_data := x_msg_summary;
end if;
```

```
END SHIP_CONFIRM_EXAMPLE;
```

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