

Oracle® Order Management Suite

APIs and Open Interfaces Manual Volume 1

Release 11*i*

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Oracle Order Management Suite APIs and Open Interfaces Manual, Release 11*i*

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- Do you need more information? If so, where?
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Preface

This *Oracle® Order Management Suite APIs and Open Interfaces Manual, Release 11i* contains up-to-date information about integrating with other Oracle Manufacturing applications and with your other systems.

This preface explains how you should use this manual, and defines the notational conventions you need to understand.

Note: This documentation includes open interfaces found in Oracle Order Management Suite Release 11i. If you are using an earlier version of the software, please consult your support representative or the Product Update Notes for more specific information about your release.

About This Manual

This manual contains information about importing/exporting information using Oracle Applications open interfaces. This manual includes the following chapters:

- 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.

Audience for This Manual

This manual provides you information needed to integrate with other Oracle Manufacturing and Distribution applications and your other systems. This manual is intended for the use of the team implementing Oracle Order Management applications. In order to effectively implement, this team should include all levels of individuals including but not limited to:

- Project Leaders
- Systems Analysts
- Department managers
- Application Programmers
- System Programmers
- System Managers
- Database Administrators

Do Not Use Database Tools to Modify Oracle Applications Data

Oracle Applications tables are interrelated and any change you make using Oracle Applications can update several 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.

Consequently, we STRONGLY RECOMMEND that you never use SQL*Plus or any other tool to modify Oracle Applications data unless otherwise instructed, or when working within an open interface table as described in this manual.

Other Information Sources

Here are some other ways you can increase your knowledge and understanding of Oracle Manufacturing and Distribution applications.

Online Documentation

All Oracle Applications documentation is available online on CD-ROM, except for technical reference manuals. There are two online formats, HyperText Markup Language (HTML) and Adobe Acrobat (PDF).

All user's guides are available in HTML, Acrobat, and paper. Technical reference manuals are available in paper only. Other documentation is available in Acrobat and paper.

The *content* of the documentation does not differ from format to format. There may be slight differences due to publication standards, but such differences do not affect content. For example, page numbers and screen shots are not included in HTML.

The HTML documentation is available from all Oracle Applications windows. Each window is programmed to start your web browser and open a specific, context-sensitive section. Once any section of the HTML documentation is open, you can navigate freely throughout all Oracle Applications documentation. The HTML documentation also ships with Oracle Information Navigator (if your national language supports this tool), which enables you to search for words and phrases throughout the documentation set.

Related User's Guides

Oracle Order Management applications share business and setup information with other Oracle Applications products. Therefore, you may want to refer to other user's guides when you are integrating your systems.

If you do not have the hardcopy versions of these manuals, you can read them online using the Applications Library icon or Help menu command.

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 11i.

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 Product Update Notes If you are upgrading your Oracle Applications, refer to the product update notes appropriate to your update and product(s) to see summaries of new features as well as changes to database objects, profile options and seed data added for each new release.

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.

Other Sources

Training We offer a complete set of formal training courses to help you and your staff master Oracle Manufacturing applications and reach full productivity quickly. We organize these courses 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, or you can arrange for our trainers to teach at your facility. 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 the product 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 server, and your hardware and software environment.

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Thank You

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Or, send electronic mail to **appsdoc@us.oracle.com**.

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 Manufacturing products.
- Review, update, and resubmit imported data that failed validation.
- Export data from Oracle Order Management products

Oracle Manufacturing 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, both inbound and outbound, normally require some validation through a concurrent program. These tables are fully documented in the chapters that follow this chapter.

In several instances, interfaces do not require an intermediate validation step — you can write directly to the product's tables after you consult the product's Technical Reference Manual.

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_HEADERS_IFACE_ALL 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).

Some open interfaces are more fundamental to the architecture of Oracle Applications products. They are not *interfaces* as much as *open integration*.

For example, note flexfield validation by table / view. In this class of inbound interfaces, the addition of views automatically imports data into an existing function. This provides tight integration without adding a batch process to move data.

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:

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

Table 1–1 Oracle Order Management Interfaces/APIs

Interface/API Name	Data Flow Direction	Table, View, Process, or Procedure	Iface Man	TRM	Table, View, Module Name, or Procedure Name
Oracle Order Management/Shipping					
Order Import	Inbound	Table	Yes	Yes	OE_HEADERS_IFACE_ALL OE_LINES_IFACE_ALL OE_RESERVTSNS_IFACE_ALL OE_CREDITS_IFACE_ALL OE_PRICE_ADJS_IFACE_ALL OE_LOTSERIALS_IFACE_ALL OE_ACTIONS_IFACE_ALL
Delivery-based Ship Confirm Open Interface	Inbound	Table	Yes	Yes	WSH_DELIVERIES_INTERFACE WSH_PACKED_CONTAINER_INTERFACE WSH_PICKING_DETAILS_INTERFACE WSH_FREIGHT_CHARGES_INTERFACE
Oracle Pricing					
Formula Calculation Application Program Interface	Inbound / Outbound	Table	Yes	Yes	REQ_LINE_ATTRS
		Process	Yes	Yes	GET_CUSTOM_PRICE PARSE_FORMULA CALCULATE COMPONENT_VALUE

Table 1–1 Oracle Order Management Interfaces/APIs

Interface/API Name	Data Flow Direction	Table, View, Process, or Procedure	Iface Man	TRM	Table, View, Module Name, or Procedure Name
Update Formula Prices Application Program Interface	Inbound	Process	Yes	Yes	UPDATE_FORMULA_PRICE
Copy Price List Application Program Interface	Inbound	Table	Yes	Yes	MAPPING
		Process	Yes	Yes	COPY_PRICE_LIST PRICE_BREAK_LINE GET_NEW_ID DELETE_DUPLICATE_LINES COPY_DISCOUNTS
Adjust Price List Application Program Interface	Inbound	Table	Yes	Yes	REQ_LINE_ATTRS
Business Object for Pricing Formulas Application Program Interface	Inbound / Outbound	Table	Yes	Yes	FORMULA FORMULA_VAL FORMULA_LINES FORMULA_LINES_VAL
		Process	Yes	Yes	PROCESS_PRICE_FORMULA GET_PRICE_FORMULA
Price Request Application Program Interface	Inbound / Outbound	Table	Yes	Yes	CONTROL LINE LINE_DETAIL QUAL LINE_ATTR RELATED_LINES
		Process	Yes	Yes	PRICE_REQUEST
GET_CUSTOM_PRICE (Used in Formulas Setup) Application Program Interface	Inbound / Outbound	Table	Yes	Yes	REQ_LINE_ATTRS

Table 1–1 Oracle Order Management Interfaces/APIs

Interface/API Name	Data Flow Direction	Table, View, Process, or Procedure	Iface Man	TRM	Table, View, Module Name, or Procedure Name
GET_CUSTOM_PRICE (Used in Formulas Setup) Application Program Interface	Inbound / Outbound	Process	Yes	Yes	GET_CUSTOM_PRICE PARSE_FORMULA CALCULATE COMPONENT_VALUE
Business Object for Modifier Setup Application Program Interface	Inbound / Outbound	Table	Yes	Yes	MODIFIER_LIST MODIFIER_LIST_VAL MODIFIERS MODIFIERS_VAL QUALIFIERS QUALIFIERS_VAL PRICING_ATTR PRICING_ATTR_VAL
		Process	Yes	Yes	PROCESS_MODIFIERS
Qualifiers Application Program Interface	Inbound / Outbound	Table	Yes	Yes	QUALIFIER_RULES QUALIFIER_RULES_VAL QUALIFIERS QUALIFIERS_VAL
		Process	Yes	Yes	PROCESS_QUALIFIER_RULES LOCK_QUALIFIER_RULES GET_QUALIFIER_RULES COPY_QUALIFIER_RULES
Attribute Mapping Application Program Interface	Inbound / Outbound	Table	Yes	Yes	CONTEXTS_RESULT
		Process	Yes	Yes	BUILD_CONTEXTS ADD_CONDITION ADD_SRC_SYSTEM_TO_CONDITION DELETE_CONDITION ADD_ATTRIB_MAPPING_RULE UPDATE_ATTRIB_MAPPING_RULE DELETE_ATTRIB_MAPPING_RULE

Table 1–1 Oracle Order Management Interfaces/APIs

Interface/API Name	Data Flow Direction	Table, View, Process, or Procedure	Iface Man	TRM	Table, View, Module Name, or Procedure Name
Price List Setup	Inbound / Outbound	Table	Yes	Yes	PRICE_LIST PRICE_LIST_VAL PRICE_LIST_LINE PRICE_LIST_LINE_VAL QUALIFIERS QUALIFIERS_VAL PRICING_ATTR PRICING_ATTR_VAL
		Process	Yes	Yes	PROCESS_PRICE_LIST
Agreement Public Application Program Interface	Inbound / Outbound	Table	Yes	Yes	AGREEMENT AGREEMENT_VAL PRICE_LIST PRICE_LIST_VAL PRICE_LIST_LINE PRICE_LIST_LINE_VAL PRICING_ATTR PRICING_ATTR_VAL
Agreement Public Application Program Interface	Inbound / Outbound	Process	Yes	Yes	None
Oracle Release Management (RLM)					
RLM_INTERFACE_HEADERS	Inbound	Table	Yes	Yes	RLM_INTERFACE_HEADERS
RLM_INTERFACE_LINES	Inbound	Table	Yes	Yes	RLM_INTERFACE_LINES
Oracle Shipping					
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)

Table 1–1 Oracle Order Management Interfaces/APIs

Interface/API Name	Data Flow Direction	Table, View, Process, or Procedure	Iface Man	TRM	Table, View, Module Name, or Procedure Name
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

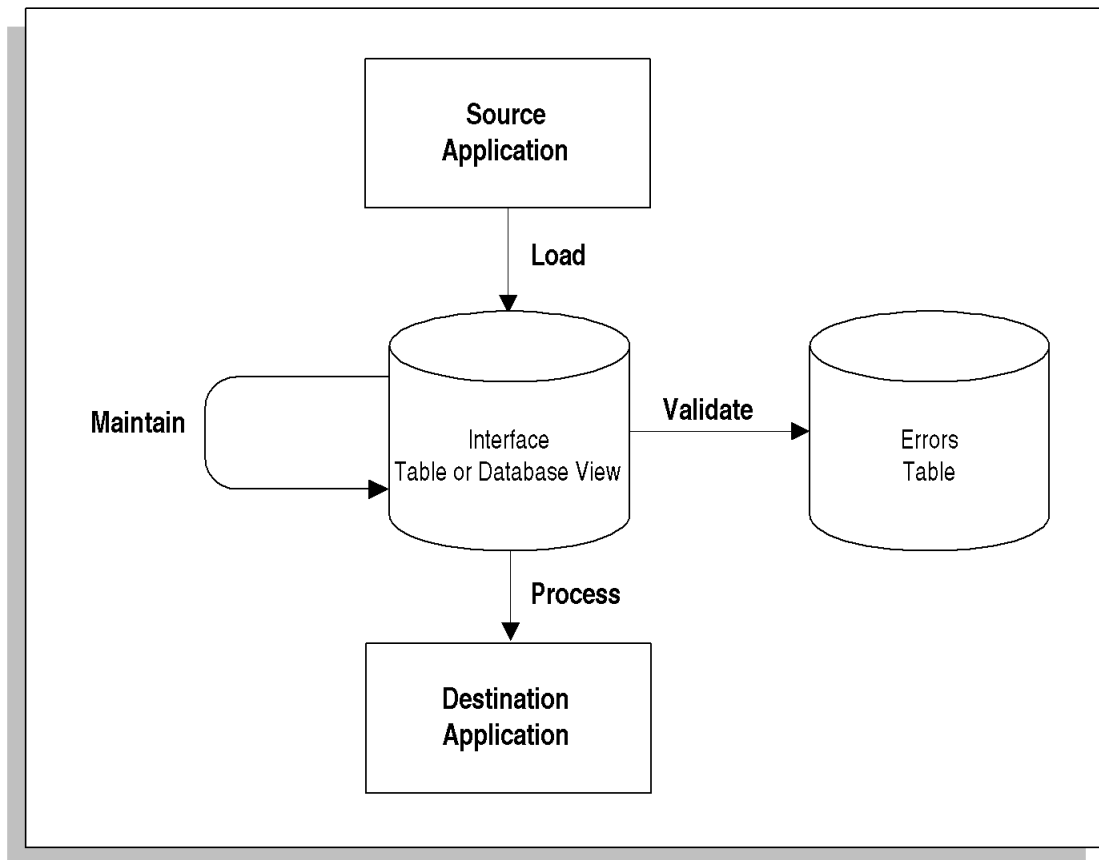
Oracle Order Management products provide both inbound and outbound interfaces. For inbound interfaces, where these products are the destination, interface tables as well as supporting validation, processing, and maintenance programs are provided. For outbound interfaces, where these products are the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

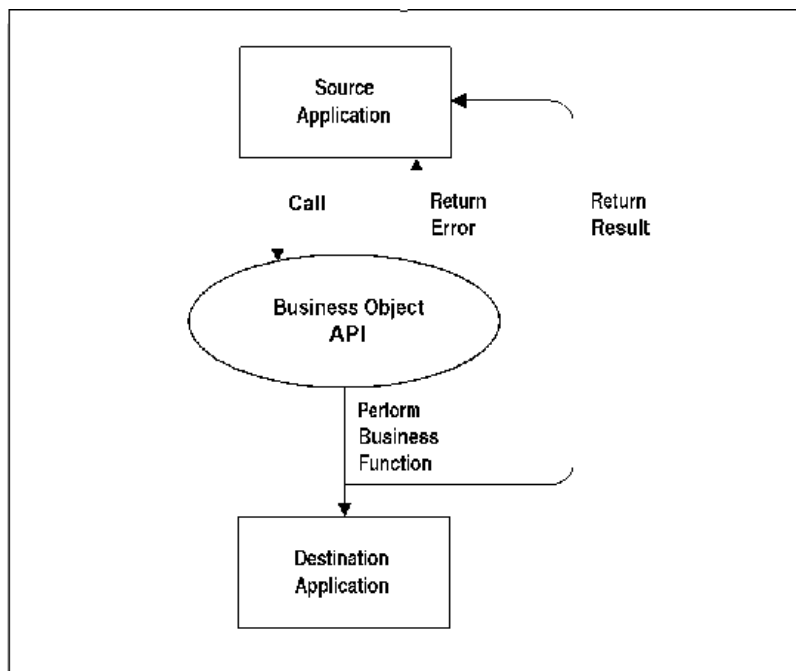
Open Interface Diagram

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 Manufacturing product.

Required Columns Required columns store the minimum information needed by the Oracle Manufacturing product 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 Manufacturing 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.

For example, in the Oracle Work in Process Open Resource Transaction Interface, the validation program inserts an error into an errors table when resource transaction records fail validation because of a missing piece of required data, such as the resource transaction quantity. In contrast, Order Import in Oracle Order Management/Shipping inserts errors into a single errors column in the interface table when rows fail validation.

Database View

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

Oracle Manufacturing 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 Manufacturing 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 Manufacturing product, 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 validates and updates 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 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

Oracle Order Management Open Interface and APIs

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Integrating Oracle Order Management Using Order Import

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.

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.

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.

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.

Parameter

The following 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.

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

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.

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.

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.

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

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.

Request Submission

Validation-Only Mode

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.

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.

Request

You can submit a request by selecting Order Import Request and select the appropriate parameter and choose Submit.

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.

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 tables and columns:

Table 2-1 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	
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(3)			X	

Table 2-1 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
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
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

Table 2–1 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
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
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	NUMBER				X
CUSTOMER_PAYMENT_ TERM	VARCHAR2(30)				X

Table 2-1 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
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
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	

Table 2–1 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
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
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		

Table 2-1 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
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		
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

Table 2-1 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
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	VARCHAR2(240)				X
ATTRIBUTE2	VARCHAR2(240)				X
ATTRIBUTE3	VARCHAR2(240)				X
ATTRIBUTE4	VARCHAR2(240)				X
ATTRIBUTE5	VARCHAR2(240)				X
ATTRIBUTE6	VARCHAR2(240)				X
ATTRIBUTE7	VARCHAR2(240)				X
ATTRIBUTE8	VARCHAR2(240)				X
ATTRIBUTE9	VARCHAR2(240)				X
ATTRIBUTE10	VARCHAR2(240)				X
ATTRIBUTE11	VARCHAR2(240)				X
ATTRIBUTE12	VARCHAR2(240)				X
ATTRIBUTE13	VARCHAR2(240)				X
ATTRIBUTE14	VARCHAR2(240)				X
ATTRIBUTE15	VARCHAR2(240)				X
HEADER_PO_CONTEXT	VARCHAR2(30)				X
PO_ATTRIBUTE_1	VARCHAR2(240)				X
PO_ATTRIBUTE_2	VARCHAR2(240)				X

Table 2-1 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
PO_ATTRIBUTE_3	VARCHAR2(240)				X
PO_ATTRIBUTE_4	VARCHAR2(240)				X
PO_ATTRIBUTE_5	VARCHAR2(240)				X
PO_ATTRIBUTE_6	VARCHAR2(240)				X
PO_ATTRIBUTE_7	VARCHAR2(240)				X
PO_ATTRIBUTE_8	VARCHAR2(240)				X
PO_ATTRIBUTE_9	VARCHAR2(240)				X
PO_ATTRIBUTE_10	VARCHAR2(240)				X
PO_ATTRIBUTE_11	VARCHAR2(240)				X
PO_ATTRIBUTE_12	VARCHAR2(240)				X
PO_ATTRIBUTE_13	VARCHAR2(240)				X
PO_ATTRIBUTE_14	VARCHAR2(240)				X
PO_ATTRIBUTE_15	VARCHAR2(240)				X
PO_REVISION_DATE	DATE				X
GLOBAL_ATTRIBUTE_ CATEGORY	VARCHAR2(30)				X
GLOBAL_ATTRIBUTE1	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE2	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE3	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE4	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE5	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE6	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE7	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE8	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE9	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE10	VARCHAR2(240)				X

Table 2–1 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
GLOBAL_ATTRIBUTE11	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE12	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE13	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE14	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE15	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE16	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE17	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE18	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE19	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE20	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

Table 2-1 OE_HEADERS_IFACE_ALL

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
STATUS_FLAG	VARCHAR2(1)				X
FORCE_APPLY_FLAG	VARCHAR2(1)				X
CHANGE_REASON	VARCHAR2(30)				X
CHANGE_COMMENTS	VARCHAR2(200)				X

Table 2-2 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 2–2 OE_HEADERS_IFACE_ALL Conditional Settings

Column Name	Conditional Setting requirement
SHIP_TO_ADDRESS1 SHIP_TO_ADDRESS2 SHIP_TO_ADDRESS3 SHIP_TO_ADDRESS4 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 <i>Ship_to_Org_id</i> should be provided
INVOICE_ADDRESS1 INVOICE_ADDRESS2 INVOICE_ADDRESS3 INVOICE_ADDRESS4 INVOICE_CITY INVOICE_COUNTRY INVOICE_COUNTY INVOICE_CUSTOMER INVOICE_CUSTOMER_NUMBER INVOICE_POSTAL_CODE INVOICE_PROVINCE_INT INVOICE_STATE	These columns or <i>Invoice_To_Org_id</i> should be provided.

Table 2–3 OE_LINES_INTERFACE

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
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	
SORT_ORDER	VARCHAR2(240)				X

Table 2–3 OE_LINES_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
MODEL_GROUP_NUMBER	NUMBER				X
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			

Table 2-3 OE_LINES_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
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
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

Table 2–3 OE_LINES_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
SHIP_TO_CONTACT_JOB_TITLE	VARCHAR2(30)				X
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

Table 2-3 OE_LINES_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
SHIP_SET_ID	NUMBER				X
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

Table 2–3 OE_LINES_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
TAX_EXEMPT_NUMBER	VARCHAR2(50)				X
TAX_EXEMPT_REASON_CODE					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

Table 2-3 OE_LINES_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
FOB_POINT	VARCHAR2(30)				X
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					X
CUSTOMER_ITEM_ID	NUMBER				X
CUSTOMER_ITEM_ID_TYPE	VARCHAR2(30)				X
CUSTOMER_ITEM_NAME	VARCHAR2(2000)				X
CUSTOMER_ITEM_REVISION	VARCHAR2(50)				X
CUSTOMER_ITEM_NET_PRICE	NUMBER				X
CUSTOMER_PAYMENT_TERM_ID	NUMBER				X
CUSTOMER_PAYMENT_TERM	VARCHAR2(30)				X

Table 2–3 OE_LINES_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
DEMAND_BUCKET_TYPE_CODE					X
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					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	

Table 2-3 OE_LINES_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
UNIT_PERCENT_BASE_PRICE	NUMBER			X	
SERVICE_NUMBER	NUMBER			X	
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	VARCHAR2(240)				X
ATTRIBUTE2	VARCHAR2(240)				X
ATTRIBUTE3	VARCHAR2(240)				X
ATTRIBUTE4	VARCHAR2(240)				X
ATTRIBUTE5	VARCHAR2(240)				X
ATTRIBUTE6	VARCHAR2(240)				X
ATTRIBUTE7	VARCHAR2(240)				X
ATTRIBUTE8	VARCHAR2(240)				X
ATTRIBUTE9	VARCHAR2(240)				X
ATTRIBUTE10	VARCHAR2(240)				X
ATTRIBUTE11	VARCHAR2(240)				X
ATTRIBUTE12	VARCHAR2(240)				X
ATTRIBUTE13	VARCHAR2(240)				X
ATTRIBUTE14	VARCHAR2(240)				X
ATTRIBUTE15	VARCHAR2(240)				X

Table 2–3 OE_LINES_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
INDUSTRY_CONTEXT	VARCHAR2(30)				X
INDUSTRY_ATTRIBUTE1	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE2	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE3	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE4	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE5	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE6	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE7	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE8	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE9	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE10	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE11	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE12	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE13	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE14	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE15	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE16	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE17	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE18	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE19	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE20	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE21	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE22	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE23	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE24	VARCHAR2(240)				X

Table 2-3 OE_LINES_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
INDUSTRY_ATTRIBUTE25	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE26	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE27	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE28	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE29	VARCHAR2(240)				X
INDUSTRY_ATTRIBUTE30	VARCHAR2(240)				X
PRICING_CONTEXT	VARCHAR2(150)				X
PRICING_ATTRIBUTE1	VARCHAR2(240)				X
PRICING_ATTRIBUTE2	VARCHAR2(240)				X
PRICING_ATTRIBUTE3	VARCHAR2(240)				X
PRICING_ATTRIBUTE4	VARCHAR2(240)				X
PRICING_ATTRIBUTE5	VARCHAR2(240)				X
PRICING_ATTRIBUTE6	VARCHAR2(240)				X
PRICING_ATTRIBUTE7	VARCHAR2(240)				X
PRICING_ATTRIBUTE8	VARCHAR2(240)				X
PRICING_ATTRIBUTE9	VARCHAR2(240)				X
PRICING_ATTRIBUTE10	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE_CATEGORY	VARCHAR2(30)				X
GLOBAL_ATTRIBUTE1	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE2	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE3	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE4	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE5	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE6	VARCHAR2(240)				X

Table 2–3 OE_LINES_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
GLOBAL_ATTRIBUTE7	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE8	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE9	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE10	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE11	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE12	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE13	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE14	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE15	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE16	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE17	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE18	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE19	VARCHAR2(240)				X
GLOBAL_ATTRIBUTE20	VARCHAR2(240)				X
RETURN_ATTRIBUTE1	VARCHAR2(240)				X
RETURN_ATTRIBUTE2	VARCHAR2(240)				X
RETURN_ATTRIBUTE3	VARCHAR2(240)				X
RETURN_ATTRIBUTE4	VARCHAR2(240)				X
RETURN_ATTRIBUTE5	VARCHAR2(240)				X
RETURN_ATTRIBUTE6	VARCHAR2(240)				X
RETURN_ATTRIBUTE7	VARCHAR2(240)				X
RETURN_ATTRIBUTE8	VARCHAR2(240)				X
RETURN_ATTRIBUTE9	VARCHAR2(240)				X
RETURN_ATTRIBUTE10	VARCHAR2(240)				X
RETURN_ATTRIBUTE11	VARCHAR2(240)				X

Table 2-3 OE_LINES_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
RETURN_ATTRIBUTE12	VARCHAR2(240)				X
RETURN_ATTRIBUTE13	VARCHAR2(240)				X
RETURN_ATTRIBUTE14	VARCHAR2(240)				X
RETURN_ATTRIBUTE15	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_1	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_2	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_3	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_4	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_5	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_6	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_7	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_8	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_9	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_10	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_11	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_12	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_13	VARCHAR2(240)				X

Table 2–3 OE_LINES_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
INVENTORY_ITEM_SEGMENT_14	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_15	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_16	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_17	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_18	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_19	VARCHAR2(240)				X
INVENTORY_ITEM_SEGMENT_20					X
SERVICE_CONTEXT	VARCHAR2(30)				X
SERVICE_ATTRIBUTE1	VARCHAR2(240)				X
SERVICE_ATTRIBUTE2	VARCHAR2(240)				X
SERVICE_ATTRIBUTE3	VARCHAR2(240)				X
SERVICE_ATTRIBUTE4	VARCHAR2(240)				X
SERVICE_ATTRIBUTE5	VARCHAR2(240)				X
SERVICE_ATTRIBUTE6	VARCHAR2(240)				X
SERVICE_ATTRIBUTE7	VARCHAR2(240)				X
SERVICE_ATTRIBUTE8	VARCHAR2(240)				X
SERVICE_ATTRIBUTE9	VARCHAR2(240)				X
SERVICE_ATTRIBUTE10	VARCHAR2(240)				X
SERVICE_ATTRIBUTE11	VARCHAR2(240)				X
SERVICE_ATTRIBUTE12	VARCHAR2(240)				X
SERVICE_ATTRIBUTE13	VARCHAR2(240)				X

Table 2-3 OE_LINES_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
SERVICE_ATTRIBUTE14	VARCHAR2(240)				X
SERVICE_ATTRIBUTE15	VARCHAR2(240)				X
CREATED_BY	NUMBER	REQUIRED			
CREATION_DATE	DATE	REQUIRED			
LAST_UPDATED_BY	NUMBER	REQUIRED			
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	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
SERVICE_TXN_REASON_CODE	VARCHAR2(30)				X
SERVICE_TXN_COMMENTS	VARCHAR2(2000)				X

Table 2-4 OE_LINES_INTERFACE 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
PRICING_QUANTITY PRICING_QUANTITY_UOM	Condition is that both columns should be populated
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
INVOICE_TO_ORG_ID INVOICE_TO_ORG	Condition is that either column should be populated

Table 2-4 OE_LINES_INTERFACE Conditional Settings

Column Name	Conditional Setting requirement
SHIP_TO_ADDRESS1 SHIP_TO_ADDRESS2 SHIP_TO_ADDRESS3 SHIP_TO_ADDRESS4 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
DEMAND_CLASS_CODE DEMAND_CLASS	Condition is that either column should be populated

Table 2-5 OE_PRICE_ADJS_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
ORIG_SYS_DOCUMENT_REF	VARCHAR2(50)	REQUIRED			
ORIG_SYS_LINE_REF	VARCHAR2(50)	REQUIRED			
ORIG_SYS_SHIPMENT_REF	VARCHAR2(50)	REQUIRED			
ORIG_SYS_DISCOUNT_REF	VARCHAR2(50)	REQUIRED			
CHANGE_SEQUENCE	VARCHAR2(50)				X
CHANGE_REQUEST_CODE	VARCHAR2(30)				X

Table 2–5 OE_PRICE_ADJS_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
ORG_ID	NUMBER			X	
DISCOUNT_ID	NUMBER	REQUIRED			
DISCOUNT_LINE_ID	NUMBER	REQUIRED			
DISCOUNT_NAME	VARCHAR2(30)	REQUIRED			
PERCENT	NUMBER				X
AUTOMATIC_FLAG	VARCHAR2(1)				X
CONTEXT	VARCHAR2(30)				X
ATTRIBUTE1	VARCHAR2(240)				X
ATTRIBUTE2	VARCHAR2(240)				X
ATTRIBUTE3	VARCHAR2(240)				X
ATTRIBUTE4	VARCHAR2(240)				X
ATTRIBUTE5	VARCHAR2(240)				X
ATTRIBUTE6	VARCHAR2(240)				X
ATTRIBUTE7	VARCHAR2(240)				X
ATTRIBUTE8	VARCHAR2(240)				X
ATTRIBUTE9	VARCHAR2(240)				X
ATTRIBUTE10	VARCHAR2(240)				X
ATTRIBUTE11	VARCHAR2(240)				X
ATTRIBUTE12	VARCHAR2(240)				X
ATTRIBUTE13	VARCHAR2(240)				X
ATTRIBUTE14	VARCHAR2(240)				X
ATTRIBUTE15	VARCHAR2(240)				X
PRICING_CONTEXT	VARCHAR2(30)				X
PRICING_ATTRIBUTE1	VARCHAR2(240)				X
PRICING_ATTRIBUTE2	VARCHAR2(240)				X

Table 2-5 OE_PRICE_ADJS_INTERFACE

Column Name	Type	Required (C = Conditionally Required)	Conditionally Required for Booking	Derived	Optional
PRICING_ATTRIBUTE3	VARCHAR2(240)				X
PRICING_ATTRIBUTE4	VARCHAR2(240)				X
PRICING_ATTRIBUTE5	VARCHAR2(240)				X
PRICING_ATTRIBUTE6	VARCHAR2(240)				X
PRICING_ATTRIBUTE7	VARCHAR2(240)				X
PRICING_ATTRIBUTE8	VARCHAR2(240)				X
PRICING_ATTRIBUTE9	VARCHAR2(240)				X
PRICING_ATTRIBUTE10	VARCHAR2(240)				X
PRICING_ATTRIBUTE11	VARCHAR2(240)				X
PRICING_ATTRIBUTE12	VARCHAR2(240)				X
PRICING_ATTRIBUTE13	VARCHAR2(240)				X
PRICING_ATTRIBUTE14	VARCHAR2(240)				X
PRICING_ATTRIBUTE15	VARCHAR2(240)				X
CREATION_DATE	DATE	REQUIRED			
CREATED_BY	NUMBER	REQUIRED			
LAST_UPDATE_DATE	DATE	REQUIRED			
LAST_UPDATED_BY	NUMBER	REQUIRED			
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 2–6 OE_CREDITS_INTERFACE

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			
ORIG_SYS_CREDIT_REF	VARCHAR2(50)	REQUIRED			
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	VARCHAR2(240)				X
ATTRIBUTE2	VARCHAR2(240)				X
ATTRIBUTE3	VARCHAR2(240)				X
ATTRIBUTE4	VARCHAR2(240)				X
ATTRIBUTE5	VARCHAR2(240)				X
ATTRIBUTE6	VARCHAR2(240)				X
ATTRIBUTE7	VARCHAR2(240)				X
ATTRIBUTE8	VARCHAR2(240)				X
ATTRIBUTE9	VARCHAR2(240)				X

Table 2-6 OE_CREDITS_INTERFACE

Column Name	Type	Required (C= Conditionally Required)	Conditionally Required for Booking	Derived	Optional
ATTRIBUTE10	VARCHAR2(240)				X
ATTRIBUTE11	VARCHAR2(240)				X
ATTRIBUTE12	VARCHAR2(240)				X
ATTRIBUTE13	VARCHAR2(240)				X
ATTRIBUTE14	VARCHAR2(240)				X
ATTRIBUTE15	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 2-7 OE_CREDITS_INTERFACE

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

Table 2–8 OE_LOTSERIALS_INTERFACE

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_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			
QUANTITY	NUMBER	REQUIRED			
CONTEXT	VARCHAR2(30)				X
ATTRIBUTE1	VARCHAR2(240)				X
ATTRIBUTE2	VARCHAR2(240)				X
ATTRIBUTE3	VARCHAR2(240)				X
ATTRIBUTE4	VARCHAR2(240)				X
ATTRIBUTE5	VARCHAR2(240)				X
ATTRIBUTE6	VARCHAR2(240)				X
ATTRIBUTE7	VARCHAR2(240)				X
ATTRIBUTE8	VARCHAR2(240)				X
ATTRIBUTE9	VARCHAR2(240)				X
ATTRIBUTE10	VARCHAR2(240)				X
ATTRIBUTE11	VARCHAR2(240)				X

Table 2–8 OE_LOTSERIALS_INTERFACE

ATTRIBUTE12	VARCHAR2(240)				X
ATTRIBUTE13	VARCHAR2(240)				X
ATTRIBUTE14	VARCHAR2(240)				X
ATTRIBUTE15	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

Table 2–9 OE_RESERVATIONS_INTERFACE

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			

Table 2–9 OE_RESERVTSNS_INTERFACE

Column Name	Type	Required (C= Conditionally Required)	Conditionally Required for Booking	Derived	Optional
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	REQUIRED			
SUBINVENTORY_CODE	VARCHAR2(10)				X
LOCATOR_ID	NUMBER				X
QUANTITY	NUMBER	REQUIRED			
ATTRIBUTE_CATEGORY	VARCHAR2(30)				X
ATTRIBUTE1	VARCHAR2(240)				X
ATTRIBUTE2	VARCHAR2(240)				X
ATTRIBUTE3	VARCHAR2(240)				X
ATTRIBUTE4	VARCHAR2(240)				X
ATTRIBUTE5	VARCHAR2(240)				X
ATTRIBUTE6	VARCHAR2(240)				X
ATTRIBUTE7	VARCHAR2(240)				X
ATTRIBUTE8	VARCHAR2(240)				X
ATTRIBUTE9	VARCHAR2(240)				X
ATTRIBUTE10	VARCHAR2(240)				X
ATTRIBUTE11	VARCHAR2(240)				X
ATTRIBUTE12	VARCHAR2(240)				X
ATTRIBUTE13	VARCHAR2(240)				X
ATTRIBUTE14	VARCHAR2(240)				X
ATTRIBUTE15	VARCHAR2(240)				X

Table 2–9 OE_RESERVTONS_INTERFACE

Column Name	Type	Required (C= Conditionally Required)	Conditionally Required for Booking	Derived	Optional
OPERATION_CODE	VARCHAR2(30)	REQUIRED			
REQUEST_ID	NUMBER				X
ERROR_FLAG	VARCHAR2(1)				X

Table 2–10 OE_ACTIONS_INTERFACE

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	VARCHAR2(240)				X
ATTRIBUTE2	VARCHAR2(240)				X
ATTRIBUTE3	VARCHAR2(240)				X
ATTRIBUTE4	VARCHAR2(240)				X

Table 2–10 OE_ACTIONS_INTERFACE

Column Name	Type	Required (C= Conditionally Required)	Conditionally Required for Booking	Derived	Optional
ATTRIBUTE5	VARCHAR2(240)				X
ATTRIBUTE6	VARCHAR2(240)				X
ATTRIBUTE7	VARCHAR2(240)				X
ATTRIBUTE8	VARCHAR2(240)				X
ATTRIBUTE9	VARCHAR2(240)				X
ATTRIBUTE10	VARCHAR2(240)				X
ATTRIBUTE11	VARCHAR2(240)				X
ATTRIBUTE12	VARCHAR2(240)				X
ATTRIBUTE13	VARCHAR2(240)				X
ATTRIBUTE14	VARCHAR2(240)				X
ATTRIBUTE15	VARCHAR2(240)				X
REQUEST_ID	NUMBER				X
OPERATION_CODE	VARCHAR2(30)	REQUIRED			
ERROR_FLAG	VARCHAR2(1)				X
STATUS_FLAG	VARCHAR2(1)				X

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 powerful 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 2–11 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	
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	
Invoicing Rule	Id
Accounting Rule	Id
Accounting Flexfield	(any)
Derive Date	(any)
Payment Terms	Id
Revenue Account allocation	(any)
Other Information region	
Transaction Type	Id
Memo Reason	Id
Agreement	Id
Memo Line Rule	Id

Table 2–11 Transaction Sources Window: Required Settings

Field in Transaction Sources Window	Necessary Value
Sales Territory	(any)
Inventory Item	Id
Unit of Measure	Id
FOB Point	Code
Freight Carrier	Code
Related Document	Id
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 2–12 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...
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 2–13 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...
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 Also

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 Also

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 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 2-14 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.
INTERFACE_LINE_ATTRIBUTE2		Varchar2(30)	Order Management inserts OE_ORDER_TYPES_V.NAME in the base language.
INTERFACE_LINE_ATTRIBUTE3		Varchar2(30)	<i>For a Shipped order line and for Freight Charges:</i> Order Management inserts substr(wsh_new_deliveries.name1..30 <i>For a Non-shipped order line or a Return Line:</i> Order Management inserts 0 (zero).
INTERFACE_LINE_ATTRIBUTE4		Varchar2(30)	<i>For a Shipped order line and for Freight Charges:</i> Order Management inserts: substr(wsh_new_deliveries.waybill1..30 <i>For a Non-shipped order line or a Return Line:</i> Order Management inserts 0 (zero).
INTERFACE_LINE_ATTRIBUTE5		Varchar2(30)	<i>For a Sales order or return line:</i> Order Management inserts the number of times the order or return line has been interfaced for invoice or credit. <i>For Freight charges:</i> Order Management inserts a value of 1(one).
INTERFACE_LINE_ATTRIBUTE6		Varchar2(30)	<i>For a Sales order or return line:</i> Order Management inserts OE_ORDER_LINES.LINE_ID. <i>For Freight charges:</i> OE_CHARGE_LINES_V.CHARGE_ID.
INTERFACE_LINE_ATTRIBUTE7		Varchar2(30)	<i>For a shipped order line, a return line, or for Freight Charges:</i> Order Management inserts zero (0).
INTERFACE_LINE_ATTRIBUTE8		Varchar2(30)	<i>For a shipped order line, a non-shipped order line, a return line, or for Freight Charges:</i> 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).

Table 2-14 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
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.
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 <i>OM: Invoice Numbering Method</i> is set to Delivery Name, but line is non-shippable or a return line, Order Management passes the value of the profile option <i>OM: Non-Delivery Invoice Source</i> . 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.

Table 2–14 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
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 <i>TAX: Invoice Freight as Revenue</i> is set to No, otherwise the system inserts LINE.
DESCRIPTION	Not Null	Varchar2(240)	For a Sales order or return line: Order Management inserts MTL_SYSTEM_ITEMS.DESCRPTION 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.

Table 2-14 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
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.
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: <pre>SELECT customer_id FROM oe_invoice_to_orgs_v WHERE organization_id = oe_order_lines.invoice_to_org_id</pre>
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: <pre>SELECT address_id FROM oe_invoice_to_orgs_v WHERE organization_id = oe_order_lines.invoice_to_org_id</pre>
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 <pre>SELECT customer_id FROM oe_ship_to_orgs_v WHERE organization_id = oe_order_lines.ship_to_org_id</pre>
ORIG_SYSTEM_SHIP_ADDRESS_REF		Varchar2(240)	Order Management does not insert a value into this column.

Table 2-14 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 <i>any</i> values into <i>any</i> 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 2-14 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 <i>OM: Invoice Numbering Method</i> profile is set to Automatic, AutoInvoice determines a unique number for this transaction. If the profile is set to <i>Delivery Name</i> , Order Management inserts a delivery name. An index is appended if the delivery has more than one invoice. For example, Order Management might insert <i>delivery</i> for the first invoice, <i>delivery-1</i> for the second, <i>delivery-2</i> 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	<i>For a Sales order line or return line:</i> Order Management inserts OE_ORDER_LINES.ORDERED_QUANTITY. <i>For Freight charges:</i> Order Management does not insert a value into this column
UNIT_SELLING_PRICE		NUMBER	<i>For a Sales order line or return lines:</i> Order Management inserts OE_ORDER_LINES.UNIT_SELLING_PRICE. <i>For Freight charges:</i> Order Management does not insert a value into this column.

Table 2–14 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 <i>LIFO</i>
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 2-14 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.freight_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 2–14 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)	<i>For a Sales order line and for Freight charge lines:</i> Order Management inserts DECODE(ACCOUNTING_RULE_ID,1, NULL,INVOICING_RULE_ID). <i>For a Non-shipped order line:</i> 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)	<i>For a Sales order line and for Freight charge lines:</i> Order Management inserts DECODE(ACCOUNTING_RULE_ID,1, NULL,ACCOUNTING_RULE_ID). <i>For a Return line:</i> Order Management does not insert a value into this column.
ACCOUNTING_RULE_DURATION		NUMBER(15)	If the accounting rule is of type <i>Variable Duration</i> then insert <i>Service Duration</i> 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)	<i>For a Sales order or return line:</i> Order Management inserts OE_ORDER_LINES.LINE_NUMBER. <i>For Freight charges:</i> 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.

Table 2-14 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
SALES_ORDER_REVISION		NUMBER	Order Management does not insert a value into this column.
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)	<i>For a Sales order line:</i> Order Management inserts OE_ORDER_LINES.AGREEMENT_ID. <i>For a Return line with a purchase order or sales order reference:</i> Order Management inserts the AGREEMENT_ID from the referenced order line. <i>For return lines with an invoice reference:</i> Order Management does not insert a value into this column. <i>For Freight charges:</i> 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)	<i>for a Sales order or return line:</i> Order Management inserts OE_ORDER_LINES.INVENTORY_ITEM_ID. <i>For Freight charges:</i> 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 2–14 RA_INTERFACE_LINES

Column Name	Null?	Type	Description
REFERENCE_LINE_ID		NUMBER(15)	<i>For a Sales order line:</i> Order Management inserts OE_ORDER_LINES.COMMITMENT_ID. <i>For a Return line:</i> Order Management inserts OE_ORDER_LINES.CREDIT_INVOICE_LINE_ID. <i>For Freight charges:</i> 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)	<i>For a Sales order or return line:</i> Order Management inserts OE_ORDER_LINES.CONTEXT. <i>For Freight charges:</i> Order Management inserts OE_CHARGE_LINES_V.CONTEXT.
ATTRIBUTE1...15		Varchar2(150)	<i>For a Sales order or return line:</i> Order Management inserts OE_ORDER_LINES.ATTRIBUTE1-15. <i>For Freight charges:</i> Order Management inserts OE_CHARGE_LINES_V.ATTRIBUTE1-15.
HEADER_ATTRIBUTE_CATEGORY		Varchar2(30)	<i>For Sales order or return line:</i> Order Management inserts OE_ORDER_HEADERS.CONTEXT. <i>For Freight charges:</i> Order Management does not insert a value into this column.
HEADER_ATTRIBUTE1...15		Varchar2(150)	<i>For a Sales order or return line:</i> Order Management inserts OE_ORDER_LINES.ATTRIBUTE1-15. <i>For Freight charges:</i> 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 2-14 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)	<i>For a Sales order or return line:</i> Order Management inserts OE_ORDER_LINES.SHIPPING_QUANTITY_UOM. <i>For Freight charges:</i> 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 2–14 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.

CUST_TRX_TYPE_ID

Value is determined based upon the following hierarchy:

For a Sales order line:

- a. Line transaction type
- b. Order Transaction type
- c. 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;
 - Insert sales credits associated with the model *parent* line; if none exists, then;
 - Insert sales credits associated with the order header.

Table 2–15 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 2-15 RA_INTERFACE_SALESCREDITS

Column	Null?	Type	Description
INTERFACE_LINE_ATTRIBUTE8		Varchar2(30)	<i>For a Shipped order line:</i> Order Management inserts WSH_DEPARTURES. BILL_OF_LADING. <i>For a Return line, or Freight charges:</i> 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 2–15 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.

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 2–16 Process Orders Entities and associated tables

Entity	Table Name
Order Header	OE_ORDER_HEADERS_ALL
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.

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

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/fulfillment_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.

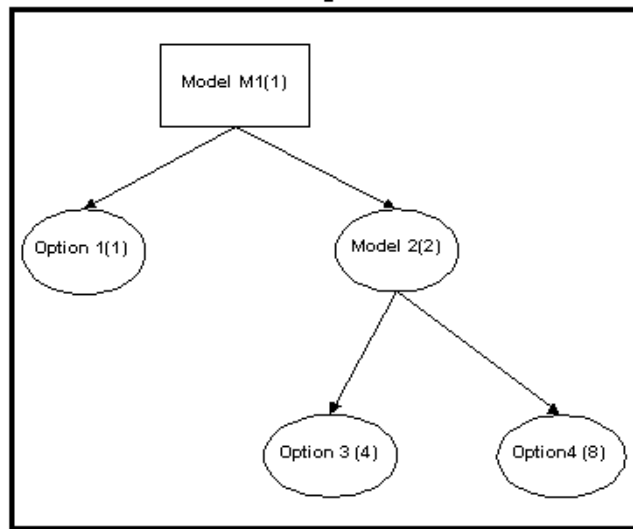


Figure 2–1 Simplified graphical representation of an ATO configuration

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.

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 2-17 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 2-18 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 2-19 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

Table 2–19 Apply Hold

Parameter	Description
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
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
param6-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 2–20 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.

Table 2–20 Release Hold

Parameter	Description
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
param4	Release Reason Code
param5	Release Comment

Delink Config

This request deletes the configuration item.

Table 2–21 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 2–22 Match and Reserve

Parameter	Description
request_type	OE_GLOBALS.G_MATCH_AND_RESERVE
entity_code	OE_GLOBALS.G_ENTITY_LINE

Table 2–22 Match and Reserve

Parameter	Description
entity_id	Line ID of the top model line of the ATO configuration
entity_index	If entity is G_ENTITY_LINE and the top model 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.

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 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
errorRollback 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 Logicerror
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 2–23 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	

Table 2-23 OE_ORDER_PUB.PROCESS_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_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

Table 2-23 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
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
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

Table 2-23 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
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
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

Table 2–23 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
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
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		

Table 2-23 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
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
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

Table 2–23 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
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
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	

Table 2-23 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
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	
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.	

Table 2–23 OE_ORDER_PUB.PROCESS_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
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	
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 2-24 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: <i>Success:</i> FND_API.G_RET_STS_SUCCESS <i>Error:</i> FND_API.G_RET_STS_ERROR <i>Unexpected Error:</i> FND_API.G_RET_STS_UNEXP_ERROR	

Table 2–24 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 => 1 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	
x_header_adj_tbl	OUT	PL/SQL Table	X		Returns the queried header price adjustments for the sales order.	

Table 2-24 OE_ORDER_PUB.GET_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
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	
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			

Table 2–24 OE_ORDER_PUB.GET_ORDER

Parameter	Usage	Type	Required	Optional	Description	Default
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 2-25 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: <i>Success:</i> FND_API.G_RET_STS_SUCCESS <i>Error:</i> FND_API.G_RET_STS_ERROR <i>Unexpected Error:</i> FND_API.G_RET_STS_UNEXP_ERROR	

Table 2–25 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 2-25 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 2-25 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 2-25 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 2–25 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 2-26 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	
cancelled_flag	VARCHAR2(1)				X
context	VARCHAR2(30)				X
conversion_rate	NUMBER		C - if conversion type is <i>User</i>		X
conversion_rate_date	DATE		C - if conversion type is <i>User</i>		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	

Table 2-26 OE_ORDER_HEADERS_ALL.

Parameter	Datatype	Required	Required at Booking	Derived	Optional
freight_terms_code	VARCHAR2(30)				X
global_attribute1...	VARCHAR2(240)				X
global_attribute20					
global_attribute_category	VARCHAR2(30)				X
tp_context	VARCHAR2(30)				X
tp_attribute1....	VARCHAR2(240)				X
tp_attribute15					
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

Table 2–26 OE_ORDER_HEADERS_ALL.

Parameter	Datatype	Required	Required at Booking	Derived	Optional
partial_shipments_allowed	VARCHAR2(1)			X	
payment_term_id	NUMBER		C - for order lines, not return lines		X
price_list_id	NUMBER		X		X
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

Table 2-26 OE_ORDER_HEADERS_ALL.

Parameter	Datatype	Required	Required at Booking	Derived	Optional
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 <i>Exempt</i>			X
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	

Table 2–26 OE_ORDER_HEADERS_ALL.

Parameter	Datatype	Required	Required at Booking	Derived	Optional
customer_payment_term_id	NUMBER				X
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 <i>Check</i>		
credit_card_code	VARCHAR2(80)				X
credit_card_holder_name	VARCHAR2(80)		C - if payment type is <i>Credit Card</i>		
credit_card_number	VARCHAR2(80)		C - if payment type <i>Credit Card</i>		
credit_card_expiration_date	DATE		C - if payment type <i>Credit Card</i>		
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 2–27 Header_Val_Rec_Type

Parameter
accounting_rule
agreement
conversion_type
deliver_to_address1
deliver_to_address2
deliver_to_address3
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

Table 2–27 Header_Val_Rec_Type

Parameter accounting_rule
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
sold_to_contact
sold_to_org
sold_from_org
tax_exempt
tax_exempt_reason
tax_point
customer_payment_term
payment_type
credit_card
status
freight_carrier
shipping_method
order_date_type
customer_number

Table 2-27 Header_Val_Rec_Type

Parameter accounting_rule
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 2-28 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	

Table 2–28 OE_PRICE_ADJUSTMENTS

Parameter	Datatype	Required	Derived	Optional
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	
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)			

Table 2–28 OE_PRICE_ADJUSTMENTS

Parameter	Datatype	Required	Derived	Optional
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	
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	

Table 2–28 OE_PRICE_ADJUSTMENTS

Parameter	Datatype	Required	Derived	Optional
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	
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 2–29 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 2–30 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	
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)			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 ASSOCS.

Table 2-31 OE_PRICE_ADJ ASSOCS

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_ATTRIBS

Table 2-32 OE_PRICE_ADJ_ATTRIBS

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(10)		X	
db_flag	VARCHAR2(10)		X	
operation	VARCHAR2(30)			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 2–33 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 2-34 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	

Table 2–34 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
commitment_id	NUMBER				X
component_code	VARCHAR2(1000)				X
component_number	NUMBER			X	
component_sequence_id	NUMBER			X	
config_header_id	NUMBER			X	
config_rev_nbr	NUMBER			X	
config_display_sequence	NUMBER			X	
configuration_id	NUMBER			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

Table 2–34 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
earliest_acceptable_date	DATE			X	
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... global_attribute20	VARCHAR2(240)				X
global_attribute_category	VARCHAR2(30)				X
header_id	NUMBER				X
industry_attribute1... industry_attribute30	VARCHAR2(240)				X
industry_context	VARCHAR2(30)				X
tp_context	VARCHAR2(30)				X
tp_attribute1... tp_attribute15	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

Table 2–34 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
ordered_item	VARCHAR2(2000)	C: for <i>Generic Items</i>			
item_revision	VARCHAR2(3)				X
item_type_code	VARCHAR2(30)			X	
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	

Table 2–34 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
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
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

Table 2–34 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
request_id	NUMBER				X
reserved_quantity	NUMBER				X
return_attribute1... return_attribute15	VARCHAR2(240)				X
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

Table 2–34 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
fulfillment_set_id	NUMBER				X
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		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 <i>Exempt</i>			X
tax_point_code	VARCHAR2(30)				for future use
tax_rate	NUMBER			X	
tax_value	NUMBER			X	
top_model_line_ref	VARCHAR2(50)				X

Table 2–34 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
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
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	

Table 2–34 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
drop_ship_flag	VARCHAR2(1)			X	
customer_line_number	VARCHAR2(50)				X
customer_shipment_number	VARCHAR2(50)				X
customer_item_net_price	NUMBER				X
customer_payment_term_id	NUMBER				X
ordered_item_id	NUMBER	C: for Customer Items			
item_identifier_type	VARCHAR2(25)	C: for <i>customer</i> and <i>generic</i> 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	

Table 2–34 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
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
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	

Table 2–34 OE_ORDER_LINES_ALL

Parameter	Datatype	Required	Required at Booking	Derived	Optional
marketing_source_code_id	NUMBER				X
fulfillment_date	DATE			X	
semi_processed_flag	BOOLEAN			X	

TYPE Line_Tbl_Type IS TABLE OF Line_Rec_Type
Index BY BINARY_INTEGER;

Line_Val_Rec_Type

Table 2–35 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

Table 2–35 *Line_Val_Rec_Type*

Parameter
invoice_to_address2
invoice_to_address3
invoice_to_address4
invoice_to_contact
invoice_to_location
invoice_to_org
invoicing_rule
item_type
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

Table 2–35 *Line_Val_Rec_Type*

Parameter
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
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
ref_order_number
ref_line_number
ref_shipment_number
ref_option_number
ref_invoice_number
ref_invoice_line_number
credit_invoice_number

Table 2–35 Line_Val_Rec_Type

Parameter
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 2–36 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

Table 2–36 OE_PRICE_ADJUSTMENTS

Parameter	Datatype	Required	Derived	Optional
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
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	

Table 2–36 OE_PRICE_ADJUSTMENTS

Parameter	Datatype	Required	Derived	Optional
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	
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	

Table 2–36 OE_PRICE_ADJUSTMENTS

Parameter	Datatype	Required	Derived	Optional
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	
include_on_returns_flag	VARCHAR2(1)		X	
ac_attribute1... ac_attribute15	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 2-37 OE_ORDER_PRICE_ATTRIBS

Parameter	Datatype	Required	Derived	Optional
order_price_attrid_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
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... attribute15	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

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		
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 2-38 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		
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 2–39 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 2–40 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	

Table 2–40 OE_LOT_SERIAL_NUMBERS

Parameter	Datatype	Required	Derived	Optional
db_flag	VARCHAR2(1)		X	
operation	VARCHAR2(30)	X		
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;

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 `config_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

Example 1 C

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;
```

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

Example 3

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

Example 5

Deleting an order.

```
-- 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
.....);
```

Action Request

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

Example 6

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 Also

Oracle Applications Message Reference Manual

Oracle Order Management User's Guide

Oracle Pricing Open Interfaces

This chapter contains information about the following Oracle Pricing open interfaces and application program interfaces:

Get Custom Price (Used in Formulas Setup) Application Program Interface on page 3-2

Business Object for Pricing Formulas Application Program Interface on page 3-8

Price Request Application Program Interface on page 3-40

Examples on page 3-67

Business Object for Modifier Setup Application Program Interface on page 3-79

Qualifiers Application Program Interface on page 3-171

Attribute Mapping Application Program Interface on page 3-193

Price List Setup Application Program Interface on page 3-205

Agreements Public Application Program Interface on page 3-255

Get Custom Price (Used in Formulas Setup) Application Program Interface

This section explains how to use the Get_Custom Price API and how it functions in Oracle Pricing.

Get Custom Price API Features

The Get Custom Price API is a customizable 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 setup 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 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. Pricing engine would give error, if this profile is set and QP_CUSTOM. Get_Custom_Price is not created in the database, in apps schema.

- API to all procedures within and outside of this package
- Get_Custom_Price: A customizable function.

Setting Up the Get Custom Price API

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.

REQ_LINE_ATTRS_REC

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
line_index	Null	Number	Yes	No	No
attribute_type	Null	Varchar2	Yes	No	No
context	Null	Varchar2	Yes	No	No
attribute	Null	Varchar2	Yes	No	No
value	Null	Varchar2	Yes	No	No

REQ_LINE_ATTRS_TBL

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
rec_line_attr_rec	Null	Record	No	No	No

GET_CUSTOM_PRICE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
p_price_formula_id	In	Number	Yes	No	No
p_list_price	In	Number	No	No	No
p_price_effective_date	In	Date	Yes	No	No
p_req_line_attr_tbl	In	Table	Yes	No	No
	Return	Number	Yes	No	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 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 user-coded validation fails, the API should return error status to the calling module. The Pricing Engine calls the Get_Custom_Price API while evaluating a formula containing a formula line of type 'Function'. The Get Custom Price (Used in Formulas Setup) API processes the rows and reports the values in the following table for every record.

.

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	null
Failure	4	actual error message

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 customizable. 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.

3) 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    IN QP_
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 Also

Oracle Pricing Technical Reference Manual

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 Pricing.

Business Object for Pricing Formulas API Features

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 the Business Object for Pricing Formulas API

Parameter Descriptions

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

FORMULA_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
attribute1	Null	Varchar2	No	No	No
attribute2	Null	Varchar2	No	No	No
attribute3	Null	Varchar2	No	No	No
attribute4	Null	Varchar2	No	No	No
attribute5	Null	Varchar2	No	No	No
attribute6	Null	Varchar2	No	No	No
attribute7	Null	Varchar2	No	No	No
attribute8	Null	Varchar2	No	No	No
attribute9	Null	Varchar2	No	No	No
attribute10	Null	Varchar2	No	No	No
attribute11	Null	Varchar2	No	No	No
attribute12	Null	Varchar2	No	No	No
attribute13	Null	Varchar2	No	No	No
attribute14	Null	Varchar2	No	No	No
attribute15	Null	Varchar2	No	No	No
context	Null	Varchar2	No	No	No
created_by	Null	Number	No	No	No
creation_date	Null	Date	No	No	No
description	Null	Varchar2	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
end_date_active	Null	Date	No	No	No
formula	Null	Varchar2	Yes	No	No
last_updated_by	Null	Number	No	No	No
last_update_date	Null	Date	No	No	No
last_update_login	Null	Number	No	No	No
name	Null	Varchar2	Yes	No	No
price_formula_id	Null	Number	No	No	No
start_date_active	Null	Date	No	No	No
return_status	Null	Varchar2	No	No	No
db_flag	Null	Varchar2	No	No	No
operation	Null	Varchar2	Yes	No	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.

Parameter	Usage	Type	Required	Derived	Optional
Formula_Rec_Type	Null	Record	No	No	No

FORMULA_VAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
price_formula	Null	Number	No	No	No

price formula

Default Value: FND_API.G_MISS_CHAR

FORMULA_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Formula_Val_Rec_Type	Null	Record	No	No	No

FORMULA_LINES_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
attribute1	Null	Varchar2	No	No	No
attribute2	Null	Varchar2	No	No	No
attribute3	Null	Varchar2	No	No	No
attribute4	Null	Varchar2	No	No	No
attribute5	Null	Varchar2	No	No	No
attribute6	Null	Varchar2	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
attribute7	Null	Varchar2	No	No	No
attribute8	Null	Varchar2	No	No	No
attribute9	Null	Varchar2	No	No	No
attribute10	Null	Varchar2	No	No	No
attribute11	Null	Varchar2	No	No	No
attribute12	Null	Varchar2	No	No	No
attribute13	Null	Varchar2	No	No	No
attribute14	Null	Varchar2	No	No	No
attribute15	Null	Varchar2	No	No	No
context	Null	Varchar2	No	No	No
created_by	Null	Number	No	No	No
creation_date	Null	Date	No	No	No
end_date_active	Null	Date	No	No	No
last_updated_by	Null	Number	No	No	No
last_update_date	Null	Date	No	No	No
last_update_login	Null	Number	No	No	No
numeric_constant	Null	Number	Yes, conditionall y Required when formula_ line_type_ code is 'NUM'	No	No
price_formula_id	Null	Number	No	No	No
price_formula_line_id	Null	Number	No	No	No
formula_line_type_code	Null	Varchar2	Yes	No	No

Parameter	Usage	Type	Required	Derived	Optional
price_list_line_id	Null	Number	Yes, conditionally Required when formula_ line_type_ code is 'PLL'	No	No
price_modifier_list_id	Null	Number	Yes, conditionally Required when formula_ line_type_ code is 'ML'	No	No
pricing_attribute	Null	Varchar2	Yes, conditionally Required when formula_ line_type_ code is 'PRA'	No	No
pricing_attribute_context	Null	Varchar2	Yes, conditionally Required when formula_ line_type_ code is 'PRA'	No	No
start_date_active	Null	Date	No	No	No
step_number	Null	number	Yes	No	No
return_status	Null	Varchar2	No	No	No
db_flag	Null	Varchar2	No	No	No
operation	Null	Varchar2	Yes	No	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

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

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.

Parameter	Usage	Type	Required	Derived	Optional
Formula_Lines_Rec_Type	Null	Record	No	No	No

FORMULA_LINES_VAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
price_formula	Null	Varchar2	No	No	No
price_formula_line	Null	Varchar2	No	No	No
price_formula_line_type	Null	Varchar2	No	No	No
price_list_line	Null	Varchar2	No	No	No
price_modifier_list	Null	Varchar2	No	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.

Parameter	Usage	Type	Required	Derived	Optional

Formula_Lines_Val_Rec_ Type	Null	Record	No	No	No

QP_PRICE_FORMULA.PROCESS_PRICE_FORMULA

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
p_api_version_number	In	Number	No	No	No
p_init_msg_list	In	Varchar2	No	No	No
p_return_values	In	Varchar2	No	No	No
p_commit	In	Varchar2	No	No	No
x_return_status	Out	Varchar2	No	No	No
x_msg_count	Out	Number	No	No	No
x_msg_data	Out	Varchar2	No	No	No
p_FORMULA_rec	In	Formula_Rec_ Type	No	No	No
p_FORMULA_val_rec	In	Formula_Val_ Rec_Type	No	No	No
p_FORMULA_LINES_tbl	In	Formula_Lines_ Tbl_Type	No	No	No
p_FORMULA_LINES_ val_tbl	In	Formula_Lines_ Val_Tbl_Type	No	No	No
x_FORMULA_rec	Out	Formula_Rec_ Type	No	No	No
x_FORMULA_val_rec	Out	Formula_Val_ Rec_Type	No	No	No
x_FORMULA_LINES_tbl	Out	Formula_Lines_ Tbl_Type	No	No	No
x_FORMULA_LINES_ val_tbl	Out	Formula_Lines_ Val_Tbl_Type	No	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

QP_PRICE_FORMULA.PROCESS_PRICE_FORMULA

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
p_api_version_number	In	Number	No	No	No
p_init_msg_list	In	Varchar2	No	No	No
p_return_values	In	Varchar2	No	No	No
x_return_status	Out	Varchar2	No	No	No
x_msg_count	Out	Number	No	No	No
x_msg_data	Out	Varchar2	No	No	No
p_FORMULA_rec	In	Formula_Rec_ Type	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
p_FORMULA_val_rec	In	Formula_Val_Rec_Type	No	No	No
p_FORMULA_LINES_tbl	In	Formula_Lines_Tbl_Type	No	No	No
p_FORMULA_LINES_val_tbl	In	Formula_Lines_Val_Tbl_Type	No	No	No
x_FORMULA_rec	Out	Formula_Rec_Type	No	No	No
x_FORMULA_val_rec	Out	Formula_Val_Rec_Type	No	No	No
x_FORMULA_LINES_tbl	Out	Formula_Lines_Tbl_Type	No	No	No
x_FORMULA_LINES_val_tbl	Out	Formula_Lines_Val_Tbl_Type	No	No	No

p_init_msg_list

Default Value: FND_API.G_FALSE

p_return_values

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

QP_PRICE_FORMULA.GET_PRICE_FORMULA

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
p_api_version_number	In	Number	No	No	No
p_init_msg_list	In	Varchar2	No	No	No
p_return_values	In	Varchar2	No	No	No
x_return_status	Out	Varchar2	No	No	No
x_msg_count	Out	Number	No	No	No
x_msg_data	Out	Varchar2	No	No	No
p_price_formula_id	In	Number	No	No	No
p_price_formula	In	Varchar2	No	No	No
x_FORMULA_rec	Out	Formula_Rec_ Type	No	No	No
x_FORMULA_val_rec	Out	Formula_Val_ Rec_Type	No	No	No
x_FORMULA_LINES_tbl	Out	Formula_Lines_ Tbl_Type	No	No	No
x_FORMULA_LINES_val_tbl	Out	Formula_Lines_ Val_Tbl_Type	No	No	No

p_init_msg_list

Default Value: FND_API.G_FALSE

p_return_values

Default Value: FND_API.G_FALSE

p_price_formula_id

Default Value: FND_API.G_MISS_NUM

p_price_formula
Default Value: FIND_API.G_MISS_CHAR

Validation of Business Object for Pricing Formulas API

Standard Validation

Oracle Pricing validates all required columns in the Business Object for Pricing Formulas API. 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 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.

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	null
Failure	4	actual error message

Sample code to illustrate the usage of Pricing Formulas API

```
1. The following code can also be found in file QPPFXMP1.sql in $QP_
   TOP/patch/115/sql directory

--set serveroutput on

/*****
**
```

Sample script which inserts a Pricing Formula with 6 price formula lines, each of a different type. This is to demonstrate the 6 formula line types that are supported in Pricing Formulas. They are Price List Line (PLL), Function (FUNC), List Price(LP), Numeric Constant (NUM), Pricing Attribute (PRA), Factor List(ML). Basic Pricing only supports 3 formula line types - Pricing Attribute(PRA), Numeric Constant(NUM) and Factor List(ML). All 6 are supported in Advanced Pricing.

A pricing formula header record and 6 price formula lines are created. For the formula line of type 'Factor List', the list_header_id of an already existing Factor List is used in this sample script.

This script must be modified by the user such that the column

`gpr_formula_lines_tbl(K).price_modifier_list_id`

is populated with a valid list_header_id of an existing Factor List and the column

`gpr_formula_lines_tbl(K).price_list_line_id`

is populated with a valid list_line_id of an existing Price List Line from the instance where this script is run.

Please read the Oracle Pricing User's Guide (Appendix A & B) to understand the flex fields and 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;

--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);

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;

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);

end;
/
commit;
exit;

```

2. 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 1 price formula line of type Factor List(ML) A new Factor List is created in this sample script.

Factor Lists can be created/modified only in the Pricing Formulas Form in the Factors window if using the application. A factor list once created in one formula may be used in other formulas as well. Any modification to a factor list's factors will be reflected in all the formulas using the factor list.

However, while using API's 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 1 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 1 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.

Please read the Oracle Pricing User Guide (Appendix A & B) to understand the flex fields and 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_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
:= FND_API.G_MISS_NUM;
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);

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;
```

```
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);
```

```
end;
```

```
/
```

```
commit;
```

```
exit;
```

See Also

Oracle Pricing Technical Reference Manual

Price Request Application Program Interface

This section explains how to use the Price Request API and how it functions in Oracle Pricing.

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 API 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 the Price Request API

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.

PRICE_REQUEST

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
p_line_tbl	In	LINE_TBL_ TYPE	Yes	No	No
p_qual_tbl	In	QUAL_TBL_ TYPE	No	No	Yes
p_line_attr_tbl	In	LINE_ATTR_ TBL_TYPE	No	No	Yes
p_line_detail_tbl	In	LINE_DETAIL_ TBL_TYPE	No	No	Yes
p_line_detail_qual_tbl	In	LINE_DETAIL_ QUAL_TBL_ TYPE	No	No	Yes
p_line_detail_attr_tbl	In	LINE_DETAIL_ ATTR_TBL_ TYPE	No	No	Yes
p_related_lines_tbl	In	RELATED_ LINES_TBL_ TYPE	No	No	Yes, but required for Service Line Pricing
p_control_rec	In	CONTROL_ RECORD_TYPE	Yes	No	No
x_line_tbl	Out	LINE_TBL_ TYPE	Yes	No	No
x_qual_tbl	Out	QUAL_TBL_ TYPE	No	No	Yes
x_line_attr_tbl	Out	LINE_ATTR_ TBL_TYPE	No	No	Yes
x_line_detail_tbl	Out	LINE_DETAIL_ TBL_TYPE	Yes	No	No
x_line_detail_qual_tbl	Out	LINE_DETAIL_ QUAL_TBL_ TYPE	No	No	Yes

Parameter	Usage	Type	Required	Derived	Optional
x_line_detail_attr_tbl	Out	LINE_DETAIL_ ATTR_TBL_ TYPE	No	No	Yes
x_related_lines_tbl	Out	RELATED_ LINES_TBL_ TYPE	No	No	Yes
x_return_status	Out	Varchar2	Yes	No	No
x_return_status_text	Out	Varchar2	Yes	No	No

No

CONTROL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
PRICING_EVENT	Null	Varchar2	Yes	No	No
CALCULATE_FLAG	Null	Varchar2	Yes	No	No
SIMULATION_FLAG	Null	Varchar2	Yes	No	No
ROUNDING_FLAG	Null	Varchar2	Yes	No	No

PRICING_EVENT

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.

CALCULATE_FLAG

Use to call the engines. Allowable values are:

- N: Search engine
- C: Calculate engine

Y: Both the calculate and search engines

SIMULATION_FLAG

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

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.

LINE_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
REQUEST_TYPE_CODE	Null	Varchar2	Yes	No	No
PRICING_EVENT	Obsolete	Varchar2	No	No	Yes
LIST_LINE_LEVEL_CODE	Obsolete	Varchar2	No	No	Yes
LINE_INDEX	Null	Number	Yes	No	No
LINE_ID	Null	Number	No	No	Yes
LINE_TYPE_CODE	Null	Varchar2	Yes	No	No
PRICING_EFFECTIVE_DATE	Null	Date	Yes	No	No
ACTIVE_DATE_FIRST	Null	Date	No	No	Yes
ACTIVE_DATE_FIRST_TYPE	Null	Varchar2	No	No	Yes
ACTIVE_DATE_SECOND	Null	Date	No	No	Yes
ACTIVE_DATE_SECOND_TYPE	Null	Varchar2	No	No	Yes
LINE_QUANTITY	Null	Number	Yes	No	No
LINE_UOM_CODE	Null	Varchar2	Yes	No	No

Parameter	Usage	Type	Required	Derived	Optional
UOM_QUANTITY	Null	Number	No	No	Yes
PRICED_QUANTITY	Null	Number	No	Yes	Yes
PRICED_UOM_CODE	Null	Varchar2	No	Yes	Yes
CURRENCY_CODE	Null	Varchar2	Yes	No	No
LIST_PRICE	Null	Number	No	Yes	Yes
PERCENT_PRICE	Null	Number	No	Yes	Yes
ADJUSTED_UNIT_PRICE	Null	Number	No	Yes	Yes
PARENT_PRICE	Null	Number	No	Yes	Yes
PARENT_QUANTITY	Null	Number	No	Yes	Yes
ROUNDING_FACTOR	Null	Number	No	No	Yes
PARENT_UOM_CODE	Null	Varchar2	No	Yes	Yes
PRICING_PHASE_ID	Obsolete	Number	No	No	Yes
PRICE_FLAG	Null	Varchar2	Yes	No	No
PROCESSED_CODE	Null	Varchar2	No	No	Yes
STATUS_CODE	Null	Varchar2	No	No	Yes
STATUS_TEXT	Null	Varchar2	No	No	Yes

REQUEST_TYPE_CODE(In/Out)

Identifies the transaction system making the pricing request.

PRICING_EVENT

Not used.

LIST_LINE_LEVEL_CODE

Not used.

LINE_INDEX(In/Out)

PL/SQL unique identifier for request line.

LINE_ID(In/Out)

Unique identifier of the request line in the calling application.

LINE_TYPE_CODE(In/Out)

Type of line within the request. Allowable values are:

- n ORDER
- n LINE

PRICING_EFFECTIVE_DATE(In/Out)

Date for which the pricing engine calculates the prices.

ACTIVE_DATE_FIRST(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_LINES.START_DATE_ACTIVE_FIRST and QP_LIST_LINES.END_DATE_ACTIVE_FIRST.

ACTIVE_DATE_FIRST_TYPE(In/Out)

The date type of ACTIVE_DATE_FIRST based on lookup type EFFECTIVE_DATE_TYPES.

ACTIVE_DATE_SECOND(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_LINES.START_DATE_ACTIVE_SECOND and QP_LIST_LINES.END_DATE_ACTIVE_SECOND.

ACTIVE_DATE_SECOND_TYPE(In/Out)

The date type of ACTIVE_DATE_SECOND based on lookup type EFFECTIVE_DATE_TYPES.

LINE_QUANTITY(In/Out)

Pricing request line quantity.

LINE_UOM_CODE(In/Out)

Pricing request line unit of measure.

UOM_QUANTITY(In/Out)

Unit of measure quantity, for example, in service pricing, LINE_UOM_CODE is Months and UOM_QUANTITY is 2. This field is used for service item pricing.

PRICED_QUANTITY(Out)

Quantity of pricing request line that pricing engine has priced.

PRICED_UOM_CODE(Out)

Unit of measure in which the pricing engine priced.

CURRENCY_CODE(In/Out)

Currency in which the pricing engine priced.

LIST_PRICE(Out)

Base price of the item.

PERCENT_PRICE(Out)

Price calculated as a percentage of the price of another item.

ADJUSTED_UNIT_PRICE(Out)

Price per unit after the pricing engine applies discounts and surcharges.

PARENT_PRICE (Out)

When the pricing engine determines the price of an item from the price of another item, the price of the related item.

PARENT_QUANTITY (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(In/Out)

If ROUNDING_FLAG = Y and the pricing event does not include the base price phase, the rounding factor that the pricing engine should use.

PARENT_UOM_CODE (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

Not used.

PRICE_FLAG(In/Out)

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(Out)

Internal code which indicates the stage of engine processing when an error occurred.

STATUS_CODE(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

STATUS_TEXT(Out)

Returned message.

DIFFERENT 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 Goods , 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

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
LINE_DETAIL_INDEX	Null	Number	Yes	Yes	No
LINE_DETAIL_ID	Obsolete	Number	No	No	Yes
LINE_DETAIL_TYPE_CODE	Null	Varchar2	Yes	No	No
LINE_INDEX	Null	Number	Yes	No	No
LIST_HEADER_ID	Null	Number	Yes	No	No
LIST_LINE_ID	Null	Number	Yes	No	No
LIST_LINE_TYPE_CODE	Null	Varchar2	Yes	No	No
SUBSTITUTION_TYPE_CODE	Null	Varchar2	No	No	Yes

Parameter	Usage	Type	Required	Derived	Optional
SUBSTITUTION_FROM	Null	Varchar2	No	No	Yes
SUBSTITUTION_TO	Null	Varchar2	No	No	Yes
AUTOMATIC_FLAG	Null	Varchar2	No	No	Yes
OPERAND_ CALCULATION_CODE	Null	Varchar2	Yes	No	No
OPERAND_VALUE	Null	Number	Yes	No	No
PRICING_GROUP_ SEQUENCE	Null	Number	No	No	Yes
PRICE_BREAK_TYPE_ CODE	Null	Varchar2	No	No	Yes
CREATED_FROM_LIST_ TYPE_CODE	Null	Varchar2	Yes	No	No
PRICING_PHASE_ID	Null	Number	Yes	No	No
LIST_PRICE	Null	Number	No	No	Yes
LINE_QUANTITY	Null	Number	No	No	Yes
ADJUSTMENT_AMOUNT	Null	Number	No	No	Yes
APPLIED_FLAG	Null	Varchar2	No	No	Yes
MODIFIER_LEVEL_ CODE	Null	Varchar2	Yes	No	No
STATUS_CODE	Null	Varchar2	No	No	Yes
STATUS_TEXT	Null	Varchar2	No	No	Yes
SUBSTITUTION_ ATTRIBUTE	Null	Varchar2	No	No	Yes
ACCRUAL_FLAG	Null	Varchar2	No	No	Yes
LIST_LINE_NO	Null	Varchar2	No	No	Yes
ESTIM_GL_VALUE	Null	Number	No	No	Yes
ACCRUAL_ CONVERSION_RATE	Null	Number	No	No	Yes
OVERRIDE_FLAG	Null	Varchar2	No	No	Yes
PRINT_ON_INVOICE_ FLAG	Null	Varchar2	No	No	Yes

Parameter	Usage	Type	Required	Derived	Optional
INVENTORY_ITEM_ID	Null	Number	No	No	Yes
ORGANIZATION_ID	Null	Number	No	No	Yes
RELATED_ITEM_ID	Null	Number	No	No	Yes
RELATIONSHIP_TYPE_ID	Null	Number	No	No	Yes
ESTIM_ACCRUAL_RATE	Null	Number	No	No	Yes
EXPIRATION_DATE	Null	Date	No	No	Yes
BENEFIT_PRICE_LIST_LINE_ID	Null	Number	No	No	Yes
RECURRING_FLAG	Null	Varchar2	No	No	Yes
BENEFIT_LIMIT	Null	Number	No	No	Yes
CHARGE_TYPE_CODE	Null	Varchar2	No	No	Yes
CHARGE_SUBTYPE_CODE	Null	Varchar2	No	No	Yes
INCLUDE_ON_RETURNS_FLAG	Null	Varchar2	No	No	Yes
BENEFIT_QTY	Null	Number	No	No	Yes
BENEFIT_UOM_CODE	Null	Varchar2	No	No	Yes
PRORATION_TYPE_CODE	Null	Varchar2	No	No	Yes
SOURCE_SYSTEM_CODE	Null	Varchar2	No	No	Yes
REBATE_TRANSACTION_TYPE_CODE	Null	Varchar2	No	No	Yes
SECONDARY_PRICE_LIST_IND	Null	Varchar2	No	No	Yes

LINE_DETAIL_INDEX(Out)

PL/SQL unique identifier. Unique identifier of request line detail in calling application.

LINE_DETAIL_ID

Not used

LINE_DETAIL_TYPE_CODE(Out)

Type of detail line.

LINE_INDEX(In/Out)

Identifier for parent request line.

LIST_HEADER_ID(Out)

Identifier of the list header used to create or update the pricing line.

LIST_LINE_ID(Out)

Identifier of the list line used to create or update the pricing line.

LIST_LINE_TYPE_CODE(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

Not used.

SUBSTITUTION_FROM

Not used.

SUBSTITUTION_TO

Value for terms substitution attribute.

AUTOMATIC_FLAG(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(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(Out)

Value of pricing request detail line, for example, 10 currency unit list price with 3% discount

PRICING_GROUP_SEQUENCE(Out)

Indicates the pricing bucket in which the pricing engine applied this list line.

PRICE_BREAK_TYPE_CODE(Out)

Type of price break based on lookup type PRICE_BREAK_TYPE_CODE. Possible Values:

POINT , RANGE , RECURRING

CREATED_FROM_LIST_TYPE_CODE(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 (Out)

The pricing phase which created the request line detail.

LIST_PRICE (Out)

Not used.

LINE_QUANTITY(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 particular break line was used in the calculation.

ADJUSTMENT_AMOUNT(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(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(Out)

The level at which the list line qualified for the transaction. Based on lookup type MODIFIER_LEVEL_CODE.

STATUS_CODE(Out)

Returned status. Possible Values:

- ⌘ N: New record created(All 'N' records are returned back from the pricing engine.These are success records)

STATUS_TEXT(Out)

Returned message.

SUBSTITUTION_ATTRIBUTE (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 (Out)

Indicates whether the discount is an accrual.

LIST_LINE_NO (Out)

Modifier number. This field is applicable in case of Coupon Issue kind of modifier line.

ESTIM_GL_VALUE (Out)

The discount or surcharge value of the modifier. Used to estimate the discount cost for non-monetary modifiers.

ACCRUAL_CONVERSION_RATE (Out)

The rate to use when converting a non-monetary accrual to a monetary value.

OVERRIDE_FLAG (Out)

Indicates if a user in the calling application can override the modifier value.

PRINT_ON_INVOICE_FLAG (Out)

Not used.

INVENTORY_ITEM_ID (Out)

Inventory item identifier in an item relationship. Used for list line type Item Upgrade.

ORGANIZATION_ID (Out)

Organization identifier in an item relationship. Used for list line type Item Upgrade.

RELATED_ITEM_ID (Out)

Related inventory item identifier in an item relationship. Used for list line type Item Upgrade.

RELATIONSHIP_TYPE_ID (Out)

Relationship type identifier in an item relationship. Used for list line type Item Upgrade.

ESTIM_ACCRUAL_RATE(Out)

Indicates the percentage at which to accrue or, for a coupon, the expected rate of redemption of the coupon. Liability is defined as: $\text{ACCRUAL OR COUPON VALUE} * \text{ESTIM\_ACCRUAL\_RATE}$.

Default Value: 100

EXPIRATION_DATE (Out)

The expiration date of the accrual or coupon.

BENEFIT_PRICE_LIST_LINE_ID (Out)

The list price before promotional discount. Used for Promotional Goods-type modifiers when the pricing engine creates a new transaction line.

RECURRING_FLAG (Out)

Not used.

BENEFIT_LIMIT (Out)

Not used.

CHARGE_TYPE_CODE (Out)

Indicates the type of charge based on lookup type FREIGHT_CHARGES_TYPE. Used for Freight/Special Charge-type modifiers.

CHARGE_SUBTYPE_CODE (Out)

Indicates the type of charge based on lookup type CHARGE_TYPE_CODE.

INCLUDE_ON_RETURNS_FLAG (Out)

Indicates whether the pricing engine should include the charge on a return transaction. Used for Freight/Special Charge-type modifiers.

BENEFIT_QTY (Out)

The accrual quantity for non-monetary accruals or, for promotional goods, item quantity.

BENEFIT_UOM_CODE (Out)

The accrual unit of measure for non-monetary accruals, or, for promotional goods, item unit of measure.

PRORATION_TYPE_CODE (Out)

Not used.

SOURCE_SYSTEM_CODE (Out)

Not used.

REBATE_TRANSACTION_TYPE_CODE (Out)

Not used.

SECONDARY_PRICE_LIST_IND (Out)

Indicates that the pricing used a secondary price list instead of the price list that the calling application requested.

DIFFERENT TYPES OF REQUEST LINE DETAILS

1. Price List Line - PLL

OPERAND_VALUE & OPERAND_CALCULATION_CODE columns store the price information and the type of price(UNIT_PRICE or PERCENT_PRICE).

2. Discount Line - DIS

OPERAND_VALUE & OPERAND_CALCULATION_CODE columns store the price information and the type of price(AMT,%,or NEW_PRICE).

3. Surcharge Line - SUR

OPERAND_VALUE & OPERAND_CALCULATION_CODE columns store the price information and the type of price(AMT,%,or NEW_PRICE).

4. Other Item Discount - OID

OID Processing:

Ex: Buy A get 10% of B

In case of OID 2 request lines need to be passed to the pricing engine

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 following table shows the 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

1. Promotional Goods Discount - PRG

PRG Processing: Ex: Buy A get B for free

In Case of PRG only Buy Item A request line need 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')

2. Terms Substitution - TSN

SUBSTITUTION ATTRIBUTE

SUBSTITUTION TO

3. Freight Charge - FREIGHT_CHARGE

Freight Charges Processing: All the freight charge discounts do not effect the selling price. The pricing engine calculates the adjustment amount for the freight charge discounts but , this does not effect the selling price.

Manual Discounts Returned By the Pricing Engine: 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 modifiers of type Discounts and Surcharge discounts are also returned to the caller, unapplied.

4. Coupon Issue - CIE

Coupon Processing: Ex: 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.

5. 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.

The following table shows an example:

List Line Type Code	Parent/Child	Price Break From	Price Break To	Value	Break Type
PBH	Parent	Null	Null	Null	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	Null	\$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 for the point break type will have the information as in the following table:

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

The record structure for the range break type will have the information as in the following table:

List Line Type Code	Adjustment Amount	Line Quantity	Break Type
PBH	\$87.1428571	350	RANGE
PLL	\$100	100	RANGE
PLL	\$90	100	RANGE
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 and is shown in the following table:

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

1. Item Upgrade - IUE

Important Columns:

INVENTORY_ITEM_ID

RELATED_ITEM_ID

QUAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
LINE_INDEX	Null	Number	No	No	Yes
QUALIFIER_CONTEXT	Null	Varchar2	No	No	Yes
QUALIFIER_ATTRIBUTE	Null	Varchar2	No	No	Yes
QUALIFIER_ATTR_VALUE_FROM	Null	Varchar2	No	No	Yes
QUALIFIER_ATTR_VALUE_TO	Null	Varchar2	No	No	Yes
COMPARISION_OPERATOR_CODE	Null	Varchar2	No	No	Yes

Parameter	Usage	Type	Required	Derived	Optional
VALIDATED_FLAG	Null	Varchar2	No	No	Yes
STATUS_CODE	Null	Varchar2	No	No	Yes
STATUS_TEXT	Null	Varchar2	No	No	Yes

LINE_INDEX(In/Out)

Unique identifier for request line or request line detail.

QUALIFIER_CONTEXT(In/Out)

Context for qualifier, for example, Customer Hierarchy.

QUALIFIER_ATTRIBUTE(In/Out)

Qualifier attribute, for example, QUALIFIER_ATTRIBUTE1: Customer Class.

QUALIFIER_ATTR_VALUE_FROM(In/Out)

Value for qualifier attribute

QUALIFIER_ATTR_VALUE_TO

Return value for qualifier attribute. Populated when the pricing engine returns details of a volume break.

COMPARISON_OPERATOR_CODE(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(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(In/Out)

Return status.

STATUS_TEXT

Return message.

LINE_ATTR_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
LINE_INDEX	Null	Number	No	No	Yes
PRICING_CONTEXT	Null	Varchar2	No	No	Yes
PRICING_ATTRIBUTE	Null	Varchar2	No	No	Yes
PRICING_ATTR_VALUE_ FROM	Null	Varchar2	No	No	Yes
PRICING_ATTR_VALUE_ TO	Null	Varchar2	No	No	Yes
VALIDATED_FLAG	Null	Varchar2	No	No	Yes
STATUS_CODE	Null	Varchar2	No	No	Yes
STATUS_TEXT	Null	Varchar2	No	No	Yes

LINE_INDEX(In/Out)

Unique identifier for request line or request line detail.

PRICING_CONTEXT(In/Out)

Context for a product or pricing attribute, for example, Product Hierarchy.

PRICING_ATTRIBUTE(In/Out)

Product or pricing attribute, for example, PRICING_ATTRIBUTE11: Customer Item ID.

PRICING_ATTR_VALUE_FROM(In/Out)

Value for product or pricing attribute.

PRICING_ATTR_VALUE_TO

Return value for Pricing attribute. Populated when the pricing engine returns details of a volume break.

VALIDATED_FLAG

Not used.

STATUS_CODE(In/Out)

Return status.

STATUS_TEXT(Out)

Return message.

RELATED_LINES_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
LINE_INDEX	Null	Number	No	No	Yes
LINE_DETAIL_INDEX	Null	Number	No	No	Yes
RELATIONSHIP_TYPE_CODE	Null	Varchar2	No	No	Yes
RLTD_LINE_INDEX	Null	Number	No	No	Yes
RLTD_LINE_DETAIL_INDEX	Null	Number	No	No	Yes

LINE_INDEX(In/Out)

PL/SQL unique identifier for request line.

LINE_DETAIL_INDEX(Out)

PL/SQL unique identifier for request detail line.

RELATIONSHIP_TYPE_CODE(In/Out)

Type of relationship between pricing lines.

RLTD_LINE_INDEX(In/Out)

PL/SQL identifier for related request line.

RLTD_LINE_DETAIL_INDEX(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 your 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 values in the following table for every record.

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	null
Failure	4	actual error message

See Also

Oracle Pricing Technical Reference Manual

Examples

Price Request Application Program Interface Example Scripts

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)

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.

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).

Please read the Oracle Pricing Uder 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_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);

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;
```

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);
```

```
end;
```

```
/
```

```
commit;
```

```
exit;
```

Pricing Attributes & 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). This information can be obtained from the Seed Data values, refer to Oracle Pricing User's Guide. Please refer to the following table with examples:

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'	Null

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.

Ex: select fnd_number.number_to_canonical(2000.45) from dual;

Please refer documentation for Canonical format explanation.

See Example Order Date in the above 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.

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 Pricing.

Business Object for Modifier Setup API Features

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 the Business Object for Modifier Setup API

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.

Parameter	Usage	Type	Required	Derived	Optional
p_api_version_number	In	Number	No	No	No
p_init_msg_list	In	Varchar2	No	No	No
p_return_values	In	Varchar2	No	No	No
p_commit	In	Varchar2	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
x_return_status	Out	Varchar2	No	No	No
x_msg_count	Out	Varchar2	No	No	No
x_msg_data	Out	Varchar2	No	No	No
p_MODIFIER_LIST_rec	In	Modifier_List_Rec_Type	No	No	No
p_MODIFIER_LIST_val_rec	In	Modifier_List_Val_Rec_Type	No	No	No
p_MODIFIERS_tbl	In	Modifiers_Tbl_Type	No	No	No
p_MODIFIERS_val_tbl	In	Modifiers_Val_Tbl_Type	No	No	No
p_QUALIFIERS_tbl	In	Qualifiers_Tbl_Type	No	No	No
p_QUALIFIERS_val_tbl	In	Qualifiers_Val_Tbl_Type	No	No	No
p_PRICING_ATTR_tbl	In	Pricing_Attr_Tbl_Type	No	No	No
p_PRICING_ATTR_val_tbl	In	Pricing_Attr_Val_Tbl_Type	No	No	No
x_MODIFIER_LIST_rec	Out	Modifier_List_Rec_Type	No	No	No
x_MODIFIER_LIST_val_rec	Out	Modifier_List_Val_Rec_Type	No	No	No
x_MODIFIERS_tbl	Out	Modifiers_Tbl_Type	No	No	No
x_MODIFIERS_val_tbl	Out	Modifiers_Val_Tbl_Type	No	No	No
x_QUALIFIERS_tbl	Out	Qualifiers_Tbl_Type	No	No	No
x_QUALIFIERS_val_tbl	Out	Qualifiers_Val_Tbl_Type	No	No	No
x_PRICING_ATTR_tbl	Out	Pricing_Attr_Tbl_Type	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
x_PRICING_ATTR_val_tbl	Out	Pricing_Attr_Val_ Tbl_Type	No	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.

Parameter	Usage	Type	Required	Derived	Optional
attribute1	Null	Varchar2	No	No	No
attribute2	Null	Varchar2	No	No	No
attribute3	Null	Varchar2	No	No	No
attribute4	Null	Varchar2	No	No	No
attribute5	Null	Varchar2	No	No	No
attribute6	Null	Varchar2	No	No	No
attribute7	Null	Varchar2	No	No	No
attribute8	Null	Varchar2	No	No	No
attribute9	Null	Varchar2	No	No	No
attribute10	Null	Varchar2	No	No	No
attribute11	Null	Varchar2	No	No	No
attribute12	Null	Varchar2	No	No	No
attribute13	Null	Varchar2	No	No	No
attribute14	Null	Varchar2	No	No	No
attribute15	Null	Varchar2	No	No	No
automatic_flag	Null	Varchar2	Yes	No	No
comments	Null	Varchar2	No	No	No
context	Null	Varchar2	No	No	No
created_by	Null	Number	No	No	No
creation_date	Null	Date	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
currency_code	Null	Varchar2	Yes	No	No
discount_lines_flag	Null	Varchar2	No	No	No
end_date_active	Null	Date	Yes	No	No
freight_terms_code	Null	Varchar2	No	No	No
gsa_indicator	Null	Varchar2	No	No	No
last_updated_by	Null	Number	No	No	No
last_update_date	Null	Date	No	No	No
last_update_login	Null	Number	No	No	No
list_header_id	Null	Number	No	No	No
list_type_code	Null	Varchar2	Yes	No	No
program_application_id	Null	Number	No	No	No
program_id	Null	Number	No	No	No
program_update_date	Null	Date	No	No	No
prorate_flag	Null	Varchar2	No	No	No
request_id	Null	Number	No	No	No
rounding_factor	Null	Number	No	No	No
ship_method_code	Null	Varchar2	No	No	No
start_date_active	Null	Date	No	No	No
terms_id	Null	Number	No	No	No
source_system_code	Null	Varchar2	Yes	No	No
active_flag	Null	Varchar2	Yes	No	No
parent_list_header_id	Null	Number	No	No	No
start_date_active_first	Null	Date	No	No	No
end_date_active_first	Null	Date	No	No	No
active_date_first_type	Null	Varchar2	No	No	No
start_date_active_second	Null	Date	No	No	No
end_date_active_second	Null	Date	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
active_date_second_type	Null	Varchar2	No	No	No
ask_for_flag	Null	Varchar2	No	No	No
return_status	Null	Varchar2	No	No	No
db_flag	Null	Varchar2	No	No	No
version_no	Null	Varchar2	Yes	No	No
operation	Null	Varchar2	Yes	No	No
name	Null	Varchar2	Yes	No	No
description	Null	Varchar2	Yes	No	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.

Parameter	Usage	Type	Required	Derived	Optional
Modifier_List_Rec_Type	Null	Record	No	No	No

MODIFIER_LIST_VAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
automatic	Null	Varchar2	No	No	No
currency	Null	Varchar2	No	No	No
discount_lines	Null	Varchar2	No	No	No
freight_terms	Null	Varchar2	No	No	No
list_header	Null	Varchar2	No	No	No
list_type	Null	Varchar2	No	No	No
prorate	Null	Varchar2	No	No	No
ship_method	Null	Varchar2	No	No	No
terms	Null	Varchar2	No	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.

Parameter	Usage	Type	Required	Derived	Optional
Modifier_List_Val_Rec_Type	Null	Record	No	No	No

MODIFIERS_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
arithmetic_operator	Null	Varchar2	No	No	No
attribute1	Null	Varchar2	No	No	No
attribute2	Null	Varchar2	No	No	No
attribute3	Null	Varchar2	No	No	No
attribute4	Null	Varchar2	No	No	No
attribute5	Null	Varchar2	No	No	No
attribute6	Null	Varchar2	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
attribute7	Null	Varchar2	No	No	No
attribute8	Null	Varchar2	No	No	No
attribute9	Null	Varchar2	No	No	No
attribute10	Null	Varchar2	No	No	No
attribute11	Null	Varchar2	No	No	No
attribute12	Null	Varchar2	No	No	No
attribute13	Null	Varchar2	No	No	No
attribute14	Null	Varchar2	No	No	No
attribute15	Null	Varchar2	No	No	No
automatic_flag	Null	Varchar2	Yes	No	No
comments	Null	Varchar2	No	No	No
context	Null	Varchar2	No	No	No
created_by	Null	Number	No	No	No
creation_date	Null	Date	No	No	No
effective_period_uom	Null	Varchar2	No	No	No
end_date_active	Null	Date	Yes	No	No
estim_accrual_rate	Null	Number	No	No	No
generate_using_formula_id	Null	Number	No	No	No
inventory_item_id	Null	Number	No	No	No
last_updated_by	Null	Number	No	No	No
last_update_date	Null	Date	No	No	No
last_update_login	Null	Number	No	No	No
list_header_id	Null	Number	No	No	No
list_line_id	Null	Number	No	No	No
list_line_type_code	Null	Varchar2	Yes	No	No
list_price	Null	Number	No	No	No
modifier_level_code	Null	Varchar2	Yes	No	No
number_effective_periods	Null	Number	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
operand	Null	Number	No	No	No
organization_id	Null	Number	No	No	No
override_flag	Null	Varchar2	No	No	No
percent_price	Null	Number	No	No	No
price_break_type_code	Null	Varchar2	Yes	No	No
price_by_formula_id	Null	Number	No	No	No
primary_uom_flag	Null	Varchar2	No	No	No
print_on_invoice_flag	Null	Varchar2	No	No	No
program_application_id	Null	Number	No	No	No
program_id	Null	Number	No	No	No
program_update_date	Null	Date	No	No	No
rebate_trxn_type_code	Null	Varchar2	No	No	No
related_item_id	Null	Number	No	No	No
relationship_type_id	Null	Number	No	No	No
reprice_flag	Null	Varchar2	No	No	No
request_id	Null	Number	No	No	No
revision	Null	Varchar2	No	No	No
revision_date	Null	Date	No	No	No
revision_reason_code	Null	Varchar2	No	No	No
start_date_active	Null	Date	Yes	No	No
substitution_attribute	Null	Varchar2	No	No	No
substitution_context	Null	Varchar2	No	No	No
substitution_value	Null	Varchar2	No	No	No
accrual_flag	Null	Varchar2	Yes	No	No
pricing_group_sequence	Null	Number	Yes	No	No
incompatibility_grp_code	Null	Varchar2	No	No	No
list_line_no	Null	Varchar2	No	No	No
from_rltd_modifier_id	Null	Number	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
to_rltd_modifier_id	Null	Number	No	No	No
rltd_modifier_grp_no	Null	Number	No	No	No
rltd_modifier_grp_type	Null	Varchar2	No	No	No
pricing_phase_id	Null	Number	Yes	No	No
product_precedence	Null	Number	Yes	No	No
expiration_period_start_date	Null	Date	No	No	No
number_expiration_periods	Null	Number	No	No	No
expiration_period_uom	Null	Varchar2	No	No	No
expiration_date	Null	Date	No	No	No
estim_gl_value	Null	Number	No	No	No
benefit_price_list_line_id	Null	Number	No	No	No
benefit_limit	Null	Number	No	No	No
charge_type_code	Null	Varchar2	No	No	No
charge_subtype_code	Null	Varchar2	No	No	No
benefit_qty	Null	Number	No	No	No
benefit_uom_code	Null	Varchar2	No	No	No
accrual_conversion_rate	Null	Number	No	No	No
proration_type_code	Null	Varchar2	No	No	No
return_status	Null	Varchar2	No	No	No
db_flag	Null	Varchar2	No	No	No
operation	Null	Varchar2	Yes	No	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.

Parameter	Usage	Type	Required	Derived	Optional
Modifiers_Rec_Type	Null	Record	No	No	No

MODIFIERS_VAL_REC_TYPE

The following table shows the parameters for this structure.

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

Parameter	Usage	Type	Required	Derived	Optional
Modifiers_Val_Rec_Type	Null	Record	No	No	No

QUALIFIERS_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
attribute1	Null	Varchar2	No	No	No
attribute2	Null	Varchar2	No	No	No
attribute3	Null	Varchar2	No	No	No
attribute4	Null	Varchar2	No	No	No
attribute5	Null	Varchar2	No	No	No
attribute6	Null	Varchar2	No	No	No
attribute7	Null	Varchar2	No	No	No
attribute8	Null	Varchar2	No	No	No
attribute9	Null	Varchar2	No	No	No
attribute10	Null	Varchar2	No	No	No
attribute11	Null	Varchar2	No	No	No
attribute12	Null	Varchar2	No	No	No
attribute13	Null	Varchar2	No	No	No
attribute14	Null	Varchar2	No	No	No
attribute15	Null	Varchar2	No	No	No
comparison_operator_code	Null	Varchar2	Yes	No	No
context	Null	Varchar2	No	No	No
created_by	Null	Number	No	No	No
created_from_rule_id	Null	Number	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
creation_date	Null	Date	No	No	No
end_date_active	Null	Date	No	No	No
excluder_flag	Null	Varchar2	No	No	No
last_updated_by	Null	Number	No	No	No
last_update_date	Null	Date	No	No	No
last_update_login	Null	Number	No	No	No
list_header_id	Null	Number	No	No	No
list_line_id	Null	Number	No	No	No
program_application_id	Null	Number	No	No	No
program_id	Null	Number	No	No	No
program_update_date	Null	Date	No	No	No
qualifier_attribute	Null	Varchar2	Yes	No	No
qualifier_attr_value	Null	Varchar2	Yes	No	No
qualifier_context	Null	Varchar2	Yes	No	No
qualifier_grouping_no	Null	Number	Yes	No	No
qualifier_precedence	Null	Number	Yes	No	No
qualifier_id	Null	Number	No	No	No
qualifier_rule_id	Null	Number	No	No	No
request_id	Null	Number	No	No	No
start_date_active	Null	Date	Yes	No	No
return_status	Null	Varchar2	No	No	No
db_flag	Null	Varchar2	No	No	No
operation	Null	Varchar2	Yes	No	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.

Parameter	Usage	Type	Required	Derived	Optional
Qualifiers_Rec_Type	Null	Record	No	No	No

QUALIFIERS_VAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
comparison_operator	Null	Varchar2	No	No	No
created_from_rule	Null	Varchar2	No	No	No
excluder	Null	Varchar2	No	No	No
list_header	Null	Varchar2	No	No	No
list_line	Null	Varchar2	No	No	No
qualifier	Null	Varchar2	No	No	No
qualifier_rule	Null	Varchar2	No	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.

Parameter	Usage	Type	Required	Derived	Optional
Qualifiers_Val_Rec_Type	Null	Record	No	No	No

PRICING_ATTR_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
accumulate_flag	Null	Varchar2	No	No	No
attribute1	Null	Varchar2	No	No	No
attribute2	Null	Varchar2	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
attribute3	Null	Varchar2	No	No	No
attribute4	Null	Varchar2	No	No	No
attribute5	Null	Varchar2	No	No	No
attribute6	Null	Varchar2	No	No	No
attribute7	Null	Varchar2	No	No	No
attribute8	Null	Varchar2	No	No	No
attribute9	Null	Varchar2	No	No	No
attribute10	Null	Varchar2	No	No	No
attribute11	Null	Varchar2	No	No	No
attribute12	Null	Varchar2	No	No	No
attribute13	Null	Varchar2	No	No	No
attribute14	Null	Varchar2	No	No	No
attribute15	Null	Varchar2	No	No	No
attribute_grouping_no	Null	Number	No	No	No
context	Null	Varchar2	No	No	No
created_by	Null	Number	No	No	No
creation_date	Null	Date	No	No	No
excluder_flag	Null	Varchar2	No	No	No
last_updated_by	Null	Number	No	No	No
last_update_date	Null	Date	No	No	No
last_update_login	Null	Number	No	No	No
list_line_id	Null	Number	No	No	No
pricing_attribute	Null	Varchar2	No	No	No
pricing_attribute_context	Null	Varchar2	No	No	No
pricing_attribute_id	Null	Number	No	No	No
pricing_attr_value_from	Null	Varchar2	No	No	No
pricing_attr_value_to	Null	Varchar2	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
product_attribute	Null	Varchar2	Yes	No	No
product_attribute_context	Null	Varchar2	Yes	No	No
product_attr_value	Null	Varchar2	Yes	No	No
product_uom_code	Null	Varchar2	Yes	No	No
program_application_id	Null	Number	No	No	No
program_id	Null	Number	No	No	No
program_update_date	Null	Date	No	No	No
product_attribute_datatype	Null	Varchar2	No	No	No
pricing_attribute_datatype	Null	Varchar2	No	No	No
comparison_operator_code	Null	Varchar2	Yes	No	No
request_id	Null	Number	No	No	No
return_status	Null	Varchar2	No	No	No
db_flag	Null	Varchar2	No	No	No
operation	Null	Varchar2	Yes	No	No
MODIFIERS_index	Null	Number	Yes	No	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.

Parameter	Usage	Type	Required	Derived	Optional
Pricing_Attr_Rec_Type	Null	Record	No	No	No

PRICING_ATTR_VAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
accumulate	Null	Varchar2	No	No	No
excluder	Null	Varchar2	No	No	No
list_line	Null	Varchar2	No	No	No
pricing_attribute	Null	Varchar2	No	No	No
product_uom	Null	Varchar2	No	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.

Parameter	Usage	Type	Required	Derived	Optional
Pricing_Attr_Val_Rec_ Type	Null	Record	No	No	No

Validation of Business Object for Modifier Setup API

Standard Validation

Oracle Pricing validates all required columns in the Business Object for Modifier Setup API. 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 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.

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	null
Failure	4	actual error message

See Also

Oracle Pricing Technical Reference Manual

Examples

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

File Path : \$QP_TOP/patch/115/sql/QPXEXDS1.sql

```
set serveroutput on
```

```
declare
```

```
l_control_rec          QP_GLOBALS.Control_Rec_Type;
```

```
l_return_status        VARCHAR2(1);
```

```
x_msg_count            number;
```

```
x_msg_data             Varchar2(2000);
```

```
x_msg_index            number;
```

```
l_MODIFIER_LIST_rec    QP_Modifiers_PUB.Modifier_List_Rec_Type;
```

```

l_MODIFIER_LIST_val_rec      QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tbl              QP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tbl          QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_QUALIFIERS_tbl             QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tbl         QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_PRICING_ATTR_tbl           QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tbl       QP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;


l_x_MODIFIER_LIST_rec        QP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_rec    QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_x_MODIFIERS_tbl            QP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tbl        QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_x_QUALIFIERS_tbl           QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tbl       QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tbl         QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tbl     QP_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  := '05-OCT-00';
l_MODIFIER_LIST_rec.end_date_active    := '12-OCT-00';

```

```
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             := '1.9';
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 := '06-OCT-00';
l_MODIFIERS_tbl(1).end_date_active := '11-OCT-00';
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

```

set serveroutput on
declare

```

```

l_control_rec          QP_GLOBALS.Control_Rec_Type;
l_return_status        VARCHAR2(1);
x_msg_count            number;
x_msg_data             Varchar2(2000);
x_msg_index            number;

```

```

l_MODIFIER_LIST_rec    QP_Modifiers_PUB.Modifier_List_Rec_Type;
l_MODIFIER_LIST_val_rec QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tbl        QP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tbl    QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;

```



```

l_QUALIFIERS_tbl      QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tbl  QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_PRICING_ATTR_tbl    QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tbl QP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

l_x_MODIFIER_LIST_rec  QP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_rec QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_x_MODIFIERS_tbl      QP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tbl  QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_x_QUALIFIERS_tbl     QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tbl QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tbl   QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tbl QP_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  := '05-OCT-00';
l_MODIFIER_LIST_rec.end_date_active    := '12-OCT-00';
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.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 := '06-OCT-00';  
l_MODIFIERS_tbl(1).end_date_active := '11-OCT-00';  
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

set serveroutput on

declare

l_control_rec QP_GLOBALS.Control_Rec_Type;

l_return_status VARCHAR2(1);

x_msg_count number;

x_msg_data Varchar2(2000);

x_msg_index number;

l_MODIFIER_LIST_rec QP_Modifiers_PUB.Modifier_List_Rec_Type;

l_MODIFIER_LIST_val_rec QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;

l_MODIFIERS_tbl QP_Modifiers_PUB.Modifiers_Tbl_Type;

l_MODIFIERS_val_tbl QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;

l_QUALIFIERS_tbl QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;

l_QUALIFIERS_val_tbl QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;

l_PRICING_ATTR_tbl QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;

l_PRICING_ATTR_val_tbl QP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

l_x_MODIFIER_LIST_rec QP_Modifiers_PUB.Modifier_List_Rec_Type;

l_x_MODIFIER_LIST_val_rec QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;

l_x_MODIFIERS_tbl QP_Modifiers_PUB.Modifiers_Tbl_Type;

l_x_MODIFIERS_val_tbl QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;

l_x_QUALIFIERS_tbl QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;

l_x_QUALIFIERS_val_tbl QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;

l_x_PRICING_ATTR_tbl QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;

l_x_PRICING_ATTR_val_tbl QP_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  := '05-OCT-00';  
l_MODIFIER_LIST_rec.end_date_active    := '12-OCT-00';  
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.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 := '06-OCT-00';  
l_MODIFIERS_tbl(1).end_date_active := '11-OCT-00';  
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

set serveroutput on

declare

l_control_rec QP_GLOBALS.Control_Rec_Type;

l_return_status VARCHAR2(1);

x_msg_count number;

x_msg_data Varchar2(2000);

x_msg_index number;

l_MODIFIER_LIST_rec QP_Modifiers_PUB.Modifier_List_Rec_Type;

l_MODIFIER_LIST_val_rec QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;

l_MODIFIERS_tbl QP_Modifiers_PUB.Modifiers_Tbl_Type;

l_MODIFIERS_val_tbl QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;

l_QUALIFIERS_tbl QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;

l_QUALIFIERS_val_tbl QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;

l_PRICING_ATTR_tbl QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;

l_PRICING_ATTR_val_tbl QP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

l_x_MODIFIER_LIST_rec QP_Modifiers_PUB.Modifier_List_Rec_Type;

l_x_MODIFIER_LIST_val_rec QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;

l_x_MODIFIERS_tbl QP_Modifiers_PUB.Modifiers_Tbl_Type;

l_x_MODIFIERS_val_tbl QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;

l_x_QUALIFIERS_tbl QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;

l_x_QUALIFIERS_val_tbl QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;

l_x_PRICING_ATTR_tbl QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;

l_x_PRICING_ATTR_val_tbl QP_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  := '05-OCT-00';  
l_MODIFIER_LIST_rec.end_date_active    := '12-OCT-00';  
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.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 := '06-OCT-00';  
l_MODIFIERS_tbl(1).end_date_active := '11-OCT-00';  
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

```
set serveroutput on
declare
```


l_control_rec	QP_GLOBALS.Control_Rec_Type;
l_return_status	VARCHAR2(1);
x_msg_count	number;
x_msg_data	Varchar2(2000);
x_msg_index	number;
l_MODIFIER_LIST_rec	QP_Modifiers_PUB.Modifier_List_Rec_Type;
l_MODIFIER_LIST_val_rec	QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tbl	QP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tbl	QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_QUALIFIERS_tbl	QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tbl	QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_PRICING_ATTR_tbl	QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tbl	QP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;
l_x_MODIFIER_LIST_rec	QP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_rec	QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_x_MODIFIERS_tbl	QP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tbl	QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_x_QUALIFIERS_tbl	QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tbl	QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tbl	QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tbl	QP_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  := '05-OCT-00';
l_MODIFIER_LIST_rec.end_date_active    := '12-OCT-00';
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.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 := '06-OCT-00';
l_MODIFIERS_tbl(1).end_date_active := '11-OCT-00';
--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 := '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 6 - Other Item Discount Creation - Buy 1 of item 62081, Get 1 free

```
--set serveroutput on
declare

    l_control_rec          QP_GLOBALS.Control_Rec_Type;
```

```

l_return_status      VARCHAR2(1);
x_msg_count          number;
x_msg_data           Varchar2(2000);
x_msg_index          number;

l_MODIFIER_LIST_rec   QP_Modifiers_PUB.Modifier_List_Rec_Type;
l_MODIFIER_LIST_val_rec QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tbl       QP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tbl    QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_QUALIFIERS_tbl       QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tbl    QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_PRICING_ATTR_tbl     QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tbl QP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

l_x_MODIFIER_LIST_rec   QP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_rec QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_x_MODIFIERS_tbl       QP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tbl    QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_x_QUALIFIERS_tbl       QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tbl    QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tbl     QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tbl QP_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  := '05-OCT-00';
l_MODIFIER_LIST_rec.end_date_active    := '10-OCT-00';
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.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 := '05-OCT-00';
l_MODIFIERS_tbl(1).end_date_active := '10-OCT-00';
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 := '05-OCT-00';
l_MODIFIERS_tbl(2).end_date_active := '10-OCT-00';
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 => 1.0
, 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 7 - Promotional Goods - Buy 1 of item 45 and 1 item 63, Get 1 item 62081 at 20% discount

```

--set serveroutput on
declare

l_control_rec          QP_GLOBALS.Control_Rec_Type;
l_return_status        VARCHAR2(1);
x_msg_count            number;
x_msg_data             Varchar2(2000);
x_msg_index            number;

l_MODIFIER_LIST_rec    QP_Modifiers_PUB.Modifier_List_Rec_Type;
l_MODIFIER_LIST_val_rec  QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tbl        QP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tbl     QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_QUALIFIERS_tbl        QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tbl    QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;

```

```

l_PRICING_ATTR_tbl      QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tbl  QP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

l_x_MODIFIER_LIST_rec    QP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_rec QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_x_MODIFIERS_tbl       QP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tbl   QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_x_QUALIFIERS_tbl      QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tbl  QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tbl    QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tbl QP_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  := '05-OCT-00';
l_MODIFIER_LIST_rec.end_date_active    := '10-OCT-00';
l_MODIFIER_LIST_rec.source_system_code := 'QP';
l_MODIFIER_LIST_rec.active_flag        := 'Y';
l_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.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 := '05-OCT-00';
l_MODIFIERS_tbl(1).end_date_active := '10-OCT-00';
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 := '05-OCT-00';
l_MODIFIERS_tbl(2).end_date_active := '10-OCT-00';
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 := '05-OCT-00';
l_MODIFIERS_tbl(3).end_date_active := '10-OCT-00';
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

```
--set serveroutput on
declare
```

```
l_control_rec          QP_GLOBALS.Control_Rec_Type;
l_return_status        VARCHAR2(1);
x_msg_count            number;
x_msg_data             Varchar2(2000);
x_msg_index            number;

l_MODIFIER_LIST_rec    QP_Modifiers_PUB.Modifier_List_Rec_Type;
l_MODIFIER_LIST_val_rec QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tbl        QP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tbl     QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_QUALIFIERS_tbl        QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tbl    QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_PRICING_ATTR_tbl      QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tbl  QP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

l_x_MODIFIER_LIST_rec   QP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_rec QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
```

```

l_x_MODIFIERS_tbl      QP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tbl  QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_x_QUALIFIERS_tbl     QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tbl QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tbl   QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tbl QP_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  := '05-OCT-00';
l_MODIFIER_LIST_rec.end_date_active    := '10-OCT-00';
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';
l_MODIFIER_LIST_rec.description        := 'latest CIE 2001 Promotion';
l_MODIFIER_LIST_rec.version_no         := '2.1';
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 anathor 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 := '05-OCT-00';
l_MODIFIERS_tbl(1).end_date_active := '10-OCT-00';
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

```

--set serveroutput on
declare

l_control_rec      QP_GLOBALS.Control_Rec_Type;
l_return_status    VARCHAR2(1);
x_msg_count        number;

```

```

x_msg_data          Varchar2(2000);
x_msg_index         number;

l_MODIFIER_LIST_rec  QP_Modifiers_PUB.Modifier_List_Rec_Type;
l_MODIFIER_LIST_val_rec  QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_MODIFIERS_tbl      QP_Modifiers_PUB.Modifiers_Tbl_Type;
l_MODIFIERS_val_tbl   QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_QUALIFIERS_tbl      QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_QUALIFIERS_val_tbl  QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_PRICING_ATTR_tbl    QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_PRICING_ATTR_val_tbl  QP_Modifiers_PUB.Pricing_Attr_Val_Tbl_Type;

l_x_MODIFIER_LIST_rec  QP_Modifiers_PUB.Modifier_List_Rec_Type;
l_x_MODIFIER_LIST_val_rec  QP_Modifiers_PUB.Modifier_List_Val_Rec_Type;
l_x_MODIFIERS_tbl      QP_Modifiers_PUB.Modifiers_Tbl_Type;
l_x_MODIFIERS_val_tbl   QP_Modifiers_PUB.Modifiers_Val_Tbl_Type;
l_x_QUALIFIERS_tbl      QP_Qualifier_Rules_PUB.Qualifiers_Tbl_Type;
l_x_QUALIFIERS_val_tbl  QP_Qualifier_Rules_PUB.Qualifiers_Val_Tbl_Type;
l_x_PRICING_ATTR_tbl    QP_Modifiers_PUB.Pricing_Attr_Tbl_Type;
l_x_PRICING_ATTR_val_tbl  QP_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  := '05-OCT-00';
l_MODIFIER_LIST_rec.end_date_active    := '10-OCT-00';
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.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 := '05-OCT-00';
l_MODIFIERS_tbl(1).end_date_active := '10-OCT-00';
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 := '05-OCT-00';
l_MODIFIERS_tbl(2).end_date_active := '10-OCT-00';
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 := '05-OCT-00';
l_MODIFIERS_tbl(3).end_date_active := '10-OCT-00';
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;
/
```

Qualifiers Application Program Interface

This section explains how to use the Qualifiers API and how it functions in Oracle Pricing.

Qualifiers API Features

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 the Qualifiers API

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.

QUALIFIER_RULES_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
attribute1	Null	Varchar2	No	No	No
attribute2	Null	Varchar2	No	No	No
attribute3	Null	Varchar2	No	No	No
attribute4	Null	Varchar2	No	No	No
attribute5	Null	Varchar2	No	No	No
attribute6	Null	Varchar2	No	No	No
attribute7	Null	Varchar2	No	No	No
attribute8	Null	Varchar2	No	No	No
attribute9	Null	Varchar2	No	No	No
attribute10	Null	Varchar2	No	No	No
attribute11	Null	Varchar2	No	No	No
attribute12	Null	Varchar2	No	No	No
attribute13	Null	Varchar2	No	No	No
attribute14	Null	Varchar2	No	No	No
attribute15	Null	Varchar2	No	No	No
context	Null	Varchar2	No	No	No
created_by	Null	Number	No	No	No
creation_date	Null	Date	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
description	Null	Varchar2	No	No	No
last_updated_by	Null	Number	No	No	No
last_update_date	Null	Date	No	No	No
last_update_login	Null	Number	No	No	No
name	Null	Varchar2	Yes	No	No
program_application_id	Null	Number	No	No	No
program_id	Null	Number	No	No	No
program_update_date	Null	Date	No	No	No
qualifier_rule_id	Null	Number	No	No	No
request_id	Null	Number	No	No	No
return_status	Null	Varchar2	No	No	No
db_flag	Null	Varchar2	No	No	No
operation	Null	Varchar2	Yes	No	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.

Parameter	Usage	Type	Required	Derived	Optional
Qualifier_Rules_Rec_Type	Null	Record	No	No	No

QUALIFIER_RULES_VAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
qualifier_rule	Null	Varchar2	No	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.

Parameter	Usage	Type	Required	Derived	Optional
Qualifier_Rules_Val_Rec_Type	Null	Record	No	No	No

QUALIFIERS_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
attribute1	Null	Varchar2	No	No	No
attribute2	Null	Varchar2	No	No	No
attribute3	Null	Varchar2	No	No	No
attribute4	Null	Varchar2	No	No	No
attribute5	Null	Varchar2	No	No	No
attribute6	Null	Varchar2	No	No	No
attribute7	Null	Varchar2	No	No	No
attribute8	Null	Varchar2	No	No	No
attribute9	Null	Varchar2	No	No	No
attribute10	Null	Varchar2	No	No	No
attribute11	Null	Varchar2	No	No	No
attribute12	Null	Varchar2	No	No	No
attribute13	Null	Varchar2	No	No	No
attribute14	Null	Varchar2	No	No	No
attribute15	Null	Varchar2	No	No	No
comparison_operator_code	Null	Varchar2	Yes	No	No
context	Null	Varchar2	No	No	No
created_by	Null	Number	No	No	No
created_from_rule_id	Null	Number	No	No	No
creation_date	Null	Date	No	No	No
end_date_active	Null	Date	No	No	No
excluder_flag	Null	Varchar2	No	No	No
last_updated_by	Null	Number	No	No	No
last_update_date	Null	Date	No	No	No
last_update_login	Null	Number	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
list_header_id	Null	Number	No	No	No
list_line_id	Null	Number	No	No	No
program_application_id	Null	Number	No	No	No
program_id	Null	Number	No	No	No
program_update_date	Null	Date	No	No	No
qualifier_attribute	Null	Varchar2	Yes	No	No
qualifier_attr_value	Null	Varchar2	Yes	No	No
qualifier_attr_value_to	Null	Varchar2	No	No	No
qualifier_context	Null	Varchar2	Yes	No	No
qualifier_datatype	Null	Varchar2	No	Yes	No
qualifier_grouping_no	Null	Number	No	No	No
qualifier_id	Null	Number	No	No	No
qualifier_precedence	Null	Number	No	No	No
qualifier_rule_id	Null	Number	No	No	No
request_id	Null	Number	No	No	No
start_date_active	Null	Date	No	No	No
return_status	Null	Varchar2	No	No	No
db_flag	Null	Varchar2	No	No	No
operation	Null	Varchar2	Yes	No	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

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.

Parameter	Usage	Type	Required	Derived	Optional
Qualifiers_Rec_Type	Null	Record	No	No	No

QUALIFIER_VAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
created_from_rule	Null	Varchar2	No	No	No
list_header	Null	Varchar2	No	No	No
list_line	Null	Varchar2	No	No	No
qualifier_rule	Null	Varchar2	No	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

QUALIFIERS_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Qualifiers_Val_Rec_Type	Null	Record	No	No	No

PROCESS_QUALIFIER_RULES

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
p_api_version_number	In	Number	No	No	No
p_init_msg_list	In	Varchar2	No	No	No
p_return_values	In	Varchar2	No	No	No
p_commit	In	Varchar2	No	No	No
x_return_status	Out	Varchar2	No	No	No
x_msg_count	Out	Number	No	No	No
x_msg_data	Out	Varchar2	No	No	No
p_QUALIFIER_RULES_rec	In	Qualifier_Rules_Rec_Type	No	No	No
p_QUALIFIER_RULES_val_rec	In	Qualifier_Rules_Val_Rec_Type	No	No	No
p_QUALIFIERS_tbl	In	Qualifiers_Tbl_Type	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
p_QUALIFIERS_val_tbl	In	Qualifiers_Val_Tbl_Type	No	No	No
x_QUALIFIER_RULES_rec	Out	Qualifier_Rules_Rec_Type	No	No	No
x_QUALIFIER_RULES_val_rec	Out	Qualifier_Rules_Val_Rec_Type	No	No	No
x_QUALIFIERS_tbl	Out	Qualifiers_Tbl_Type	No	No	No
x_QUALIFIERS_val_tbl	Out	Qualifiers_Val_Tbl_Type	No	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

LOCK_QUALIFIER_RULES

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
p_api_version_number	In	Number	No	No	No
p_init_msg_list	In	Varchar2	No	No	No
p_return_values	In	Varchar2	No	No	No
x_return_status	Out	Varchar2	No	No	No
x_msg_count	Out	Number	No	No	No
x_msg_data	Out	Varchar2	No	No	No
p_QUALIFIER_RULES_rec	In	Qualifier_Rules_Rec_Type	No	No	No
p_QUALIFIER_RULES_val_rec	In	Qualifier_Rules_Val_Rec_Type	No	No	No
p_QUALIFIERS_tbl	In	Qualifiers_Tbl_Type	No	No	No
p_QUALIFIERS_val_tbl	In	Qualifiers_Val_Tbl_Type	No	No	No
x_QUALIFIER_RULES_rec	Out	Qualifier_Rules_Rec_Type	No	No	No
x_QUALIFIER_RULES_val_rec	Out	Qualifier_Rules_Val_Rec_Type	No	No	No
x_QUALIFIERS_tbl	Out	Qualifiers_Tbl_Type	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
x_QUALIFIERS_val_tbl	Out	Qualifiers_Val_Tbl_Type	No	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.

Parameter	Usage	Type	Required	Derived	Optional
p_api_version_number	In	Number	No	No	No
p_init_msg_list	In	Varchar2	No	No	No
p_return_values	In	Varchar2	No	No	No
x_return_status	Out	Varchar2	No	No	No
x_msg_count	Out	Number	No	No	No
x_msg_data	Out	Varchar2	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
p_qualifier_rule_id	In	Number	No	No	No
p_qualifier_rule	In	Varchar2	No	No	No
x_QUALIFIER_RULES_ rec	Out	Qualifier_Rules_ Rec_Type	No	No	No
x_QUALIFIER_RULES_ val_rec	Out	Qualifier_Rules_ Val_Rec_Type	No	No	No
x_QUALIFIERS_tbl	Out	Qualifiers_Tbl_ Type	No	No	No
x_QUALIFIERS_val_tbl	Out	Qualifiers_Val_ Tbl_Type	No	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.

Parameter	Usage	Type	Required	Derived	Optional
p_api_version_number	In	Number	No	No	No
p_init_msg_list	In	Varchar2	No	No	No
p_return_values	In	Varchar2	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
p_commit	In	Varchar2	No	No	No
x_return_status	Out	Varchar2	No	No	No
x_msg_count	Out	Number	No	No	No
x_msg_data	Out	Varchar2	No	No	No
p_qualifier_rule_id	In	Number	No	No	No
p_qualifier_rule	In	Varchar2	No	No	No
p_to_qualifier_rule	In	Varchar2	No	No	No
p_to_description	In	Varchar2	No	No	No
x_qualifier_rule_id	Out	Number	No	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 Pricing validates all required columns in the Qualifiers API. 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 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.

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	null
Failure	4	actual error message

Sample code to illustrate the usage 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 Pricing User 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);

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;

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);

end;
/
commit;
exit;
```

See Also

Oracle Pricing Technical Reference Manual

Attribute Mapping Application Program Interface

This section explains how to use the X API and how it functions in Oracle Pricing.

Attribute Mapping API Features

The Attribute Mapping package consists of entities to map attributes.

Functional Overview

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

- Build_Contexts: Binds values to the attributes of the qualifier and pricing dimensions for pricing requests. The pricing engine uses the output to build the pricing request structure.
- The API processes one record with each call. The calling application must populate the global records that referenced in the sourcing rules. The output of the API is a PL/SQL table with each record having the context name, attribute name, and attribute value.
- Contexts_Result_Tbl_Type
- Contexts_Result_Rec_Type
- Add_Condition: Populates sourcing rule data.
- Add_Src_System_To_Condition: Populates sourcing rule data.
- Delete_Condition: Populates sourcing rule data.
- Add_Attrib_Mapping_Rule: Populates sourcing rule data.
- Update_Attribute_Mapping_Rule: Populates sourcing rule data.
- Delete_Attrib_Mapping_Rule: Populates sourcing rule data.

Setting Up the Attribute Mapping API

Parameter Descriptions

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

BUILD_CONTEXTS

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
p_request_type_code	In	Varchar2	No	No	No
p_pricing_type	In	Varchar2	No	No	No
x_price_contexts_result_tbl	Out	CONTEXTS_RESULT_TBL_TYPE	No	No	No
x_qual_contexts_result_tbl	Out	CONTEXTS_RESULT_TBL_TYPE	No	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_TABLE_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Contexts_Result_Tbl_Type	Null	Record	No	No	No

CONTEXTS_RESULT_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
context_name	Null	Varchar2	No	No	No
attribute_name	Null	Varchar2	No	No	No
attribute_value	Null	Varchar2	No	No	No

ADD_CONDITION

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
p_context_name	In	Varchar2	No	No	No
p_condition_name	In	Varchar2	No	No	No
p_condition_descr	In	Varchar2	No	No	No
p_context_type	In	Varchar2	No	No	No
p_pricing_type	In	Varchar2	No	No	No
p_src_sys_code	In	Varchar2	No	No	No

p_context_name

A context name set up in the flexfield definition, for example, item, customer, or volume.

p_condition_name

Unique condition name. A combination of the source system code and the context name, for example, CRM Item.

p_context_type

Allowable values:

n Q: Qualifier contexts

n P: Pricing contexts

p_pricing_type

Indicates the sourcing rules to use when building the attributes. Allowable values are:

n 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.

p_src_sys_code

An allowable source system code.

ADD_SRC_SYSTEM_TO_CONDITION

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
p_condition_name	In	Varchar2	No	No	No
p_context_type	In	Varchar2	No	No	No
p_pricing_type	In	Varchar2	No	No	No
p_src_sys_code	In	Varchar2	No	No	No

p_condition_name

Unique condition name. A combination of the source system code and the context name, for example, CRM Item.

p_context_type

Allowable values:

- Q: Qualifier contexts
- P: Pricing contexts

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.

p_src_sys_code

An allowable source system code.

DELETE_CONDITION

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
p_context_name	In	Varchar2	No	No	No
p_condition_name	In	Varchar2	No	No	No
p_context_type	In	Varchar2	No	No	No
p_pricing_type	In	Varchar2	No	No	No

p_context_name

A context name set up in the flexfield definition, for example, item, customer, or volume.

p_condition_name

Unique condition name. A combination of the source system code and the context name, for example, CRM Item.

p_context_type

Allowable values:

- Q: Qualifier contexts
- P: Pricing contexts

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.

ADD_ATTRIB_MAPPING_RULE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
p_context_name	In	Varchar2	No	No	No
p_condition_name	In	Varchar2	No	No	No
p_context_type	In	Varchar2	No	No	No
p_pricing_type	In	Varchar2	No	No	No
p_src_sys_code	In	Varchar2	No	No	No
p_attribute_code	In	Varchar2	No	No	No
p_src_type	In	Varchar2	No	No	No
p_src_api_pkg	In	Varchar2	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
p_src_api_fn	In	Varchar2	No	No	No
p_other_src	In	Varchar2	No	No	No

p_context_name

A context name set up in the flexfield definition, for example, item, customer, or volume.

p_condition_name

Unique condition name. A combination of the source system code and the context name, for example, CRM Item.

p_context_type

Allowable values:

- ⌘ Q: Qualifier contexts
- ⌘ P: Pricing contexts

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.

p_src_sys_code

An allowable source system code.

p_attribute_code

Name of the attribute for the sourcing rule, for example, PRICING_ATTRIBUTE1, PRICING_ATTRIBUTE2, or QUALIFIER_ATTRIBUTE1.

p_src_type

Allowable values:

- API: For global structures and APIs returning a single value.
- API_MULTIREC: For APIs returning multiple values.
- PROFILE_OPTION: For the profile options.
- SYSTEM: For system variables.
- CONSTANT: For constants.

p_src_api_pkg

The name of the package that includes the API or global record. This should be null if src_type is not API or API_MULTIREC, for example, OE_ORDER_PUB.

p_src_api_fn

The name of the function or global record and the field name. This should be null if src_type is not API or API_MULTIREC, for example, G_LINE_REC.inventory_id (global record) or Get_Customer_Class (API).

p_other_src

The source value for any of the other source type, for example, SYSDATE (system), 10 (constant), OM_UNDER_SHIPMENT_TOLERANCE (profile option).

UPDATE_ATTRIB_MAPPING_RULE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
p_context_name	In	Varchar2	No	No	No
p_condition_name	In	Varchar2	No	No	No
p_context_type	In	Varchar2	No	No	No
p_pricing_type	In	Varchar2	No	No	No
p_src_sys_code	In	Varchar2	No	No	No
p_attribute_code	In	Varchar2	No	No	No
p_src_type	In	Varchar2	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
p_src_api_pkg	In	Varchar2	No	No	No
p_src_api_fn	In	Varchar2	No	No	No
p_other_src	In	Varchar2	No	No	No

p_context_name

A context name set up in the flexfield definition, for example, item, customer, or volume.

p_condition_name

Unique condition name. A combination of the source system code and the context name, for example, CRM Item.

p_context_type

Allowable values:

- Q: Qualifier contexts
- P: Pricing contexts

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.

p_src_sys_code

An allowable source system code.

p_attribute_code

Name of the attribute for the sourcing rule, for example, PRICING_ATTRIBUTE1, PRICING_ATTRIBUTE2, or QUALIFIER_ATTRIBUTE1.

p_src_type

Allowable values:

- API: For global structures and APIs returning a single value.
- API_MULTIREC: For APIs returning multiple values.
- PROFILE_OPTION: For the profile options.
- SYSTEM: For system variables.
- CONSTANT: For constants.

p_src_api_pkg

The name of the package that includes the API or global record. This should be null if src_type is not API or API_MULTIREC, for example, OE_ORDER_PUB.

p_src_api_fn

The name of the function or global record and the field name. This should be null if src_type is not API or API_MULTIREC, for example, G_LINE_REC.inventory_id (global record) or Get_Customer_Class (API).

p_other_src

The source value for any of the other source type, for example, SYSDATE (system), 10 (constant), OM_UNDER_SHIPMENT_TOLERANCE (profile option).

DELETE_ATTRIB_MAPPING_RULE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
p_context_name	In	Varchar2	No	No	No
p_condition_name	In	Varchar2	No	No	No
p_context_type	In	Varchar2	No	No	No
p_pricing_type	In	Varchar2	No	No	No
p_src_sys_code	In	Varchar2	No	No	No
p_attribute_code	In	Varchar2	No	No	No

p_context_name

A context name set up in the flexfield definition, for example, item, customer, or volume.

p_condition_name

Unique condition name. A combination of the source system code and the context name, for example, CRM Item.

p_context_type

Allowable values:

- Q: Qualifier contexts
- P: Pricing contexts

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.

p_src_sys_code

An allowable source system code.

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 Pricing validates all required columns in the Attribute Mapping API. 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 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.

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	null
Failure	4	actual error message

See Also

Oracle Pricing Technical Reference Manual

Price List Setup Application Program Interface

This section explains how to use the Price List Setup API and how it functions in Oracle Pricing.

Price List Setup API Features

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 the Price List Setup API

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.

Parameter	Usage	Type	Required	Derived	Optional
p_api_version_number	In	Number	No	No	No
p_init_msg_list	In	Varchar2	No	No	No
p_return_values	In	Varchar2	No	No	No
p_commit	In	Varchar2	No	No	No
x_return_status	Out	Varchar2	No	No	No
x_msg_count	Out	Varchar2	No	No	No
x_msg_data	Out	Varchar2	No	No	No
p_PRICE_LIST_rec	In	Price_List_Rec_Type	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
p_PRICE_LIST_val_rec	In	Price_List_Val_Rec_Type	No	No	No
p_PRICE_LIST_tbl	In	Price_List_Line_tbl_type	No	No	No
p_PRICE_LIST_val_tbl	In	Price_List_Line_Val_tbl_type	No	No	No
p_QUALIFIERS_tbl	In	QP_Qualifier_Rules_PUB.Qualifiers_tbl_Type	No	No	No
p_QUALIFIERS_val_tbl	In	QP_Qualifier_Rules_PUB.Qualifiers_val_tbl_Type	No	No	No
p_PRICING_ATTR_tbl	In	Pricing_Attr_tbl_type	No	No	No
p_PRICING_ATTR_val_tbl	In	Pricing_Attr_val_tbl_type	No	No	No
x_PRICE_LIST_rec	Out	Price_List_Rec_Type	No	No	No
x_PRICE_LIST_val_rec	Out	Price_List_Val_Rec_Type	No	No	No
x_PRICE_LIST_LINE_tbl	Out	Price_List_Line_tbl_type	No	No	No
x_PRICE_LIST_LINE_val_tbl	Out	Price_List_Line_Val_tbl_type	No	No	No
x_QUALIFIERS_tbl	Out	QP_Qualifier_Rules_PUB.Qualifiers_tbl_Type	No	No	No
x_QUALIFIERS_val_tbl	Out	QP_Qualifier_Rules_PUB.Qualifiers_val_tbl_Type	No	No	No
x_PRICING_ATTR_tbl	Out	Pricing_Attr_tbl_type	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
x_PRICING_ATTR_val_tbl	In	Pricing_Attr_val_ tbl_type	No	No	No

PRICE_LIST_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
attribute1	Null	Varchar2	No	No	No
attribute2	Null	Varchar2	No	No	No
attribute3	Null	Varchar2	No	No	No
attribute4	Null	Varchar2	No	No	No
attribute5	Null	Varchar2	No	No	No
attribute6	Null	Varchar2	No	No	No
attribute7	Null	Varchar2	No	No	No
attribute8	Null	Varchar2	No	No	No
attribute9	Null	Varchar2	No	No	No
attribute10	Null	Varchar2	No	No	No
attribute11	Null	Varchar2	No	No	No
attribute12	Null	Varchar2	No	No	No
attribute13	Null	Varchar2	No	No	No
attribute14	Null	Varchar2	No	No	No
attribute15	Null	Varchar2	No	No	No
automatic_flag	Null	Varchar2	No	No	No
comments	Null	Varchar2	No	No	No
context	Null	Varchar2	No	No	No
created_by	Null	Number	No	No	No

creation_date	Null	Date	No	No	No
currency_code	Null	Varchar2	Yes	No	No
discount_lines_flag	Null	Varchar2	No	No	No
end_date_active	Null	Date	No	No	No
freight_terms_code	Null	Varchar2	No	No	No
gsa_indicator	Null	Varchar2	No	No	No
last_updated_by	Null	Number	No	No	No
last_update_date	Null	Date	No	No	No
last_update_login	Null	Number	No	No	No
list_header_id	Null	Number	No	No	No
list_type_code	Null	Varchar2	No	No	No
program_application_id	Null	Number	No	No	No
program_id	Null	Number	No	No	No
program_update_date	Null	Date	No	No	No
prorate_flag	Null	Varchar2	No	No	No
request_id	Null	Number	No	No	No
rounding_factor	Null	Number	No	No	No
ship_method_code	Null	Varchar2	No	No	No
start_date_active	Null	Date	No	No	No
terms_id	Null	Number	No	No	No
return_status	Null	Varchar2	No	No	No
db_flag	Null	Varchar2	No	No	No
operation	Null	Varchar2	Yes	No	No
name	Null	Varchar2	Yes	No	No
description	Null	Varchar2	No	No	No
version_no	Null	Varchar2	No	No	No

PRICE_LIST_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Price_List_Rec_Type	Null	Record	No	No	No

PRICE_LIST_VAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
automatic	Null	Varchar2	No	No	No
currency	Null	Varchar2	No	No	No
discount_lines	Null	Varchar2	No	No	No
freight_terms	Null	Varchar2	No	No	No
list_header	Null	Varchar2	No	No	No
list_type	Null	Varchar2	No	No	No
prorate	Null	Varchar2	No	No	No
ship_method	Null	Varchar2	No	No	No
terms	Null	Varchar2	No	No	No

PRICE_LIST_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Price_List_Val_Rec_Type	Null	Record	No	No	No

PRICE_LIST_LINE_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
accrual_qty	Null	Number	No	No	No
accrual_uom_code	Null	Varchar2	No	No	No
arithmetic_operator	Null	Varchar2	No	No	No
attribute1	Null	Varchar2	No	No	No
attribute2	Null	Varchar2	No	No	No
attribute3	Null	Varchar2	No	No	No
attribute4	Null	Varchar2	No	No	No
attribute5	Null	Varchar2	No	No	No
attribute6	Null	Varchar2	No	No	No
attribute7	Null	Varchar2	No	No	No
attribute8	Null	Varchar2	No	No	No
attribute9	Null	Varchar2	No	No	No
attribute10	Null	Varchar2	No	No	No
attribute11	Null	Varchar2	No	No	No
attribute12	Null	Varchar2	No	No	No
attribute13	Null	Varchar2	No	No	No
attribute14	Null	Varchar2	No	No	No
attribute15	Null	Varchar2	No	No	No
automatic_flag	Null	Varchar2	No	No	No
base_qty	Null	Number	No	No	No
base_uom_code	Null	Varchar2	No	No	No
comments	Null	Varchar2	No	No	No
context	Null	Varchar2	No	No	No
created_by	Null	Number	No	No	No
creation_date	Null	Date	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
effective_period_uom	Null	Varchar2	No	No	No
end_date_active	Null	Date	No	No	No
estim_accrual_rate	Null	Number	No	No	No
generate_using_formula_id	Null	Number	No	No	No
inventory_item_id	Null	Number	No	No	No
last_updated_by	Null	Number	No	No	No
last_update_date	Null	Date	No	No	No
last_update_login	Null	Number	No	No	No
list_header_id	Null	Number	No	No	No
list_line_id	Null	Number	No	No	No
list_line_type_code	Null	Varchar2	No	No	No
list_price	Null	Number	No	No	No
modifier_level_code	Null	Varchar2	No	No	No
number_effective_periods	Null	Number	No	No	No
operand	Null	Number	No	No	No
organization_id	Null	Number	No	No	No
override_flag	Null	Varchar2	No	No	No
percent_price	Null	Number	No	No	No
price_break_type_code	Null	Varchar2	No	No	No
price_by_formula_id	Null	Number	No	No	No
primary_uom_flag	Null	Varchar2	No	No	No
print_on_invoice_flag	Null	Varchar2	No	No	No
program_application_id	Null	Number	No	No	No
program_id	Null	Number	No	No	No
program_update_date	Null	Date	No	No	No
rebate_txn_type_code	Null	Varchar2	No	No	No
related_item_id	Null	Number	No	No	No
relationship_type_id	Null	Number	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
reprice_flag	Null	Varchar2	No	No	No
request_id	Null	Number	No	No	No
revision	Null	Varchar2	No	No	No
revision_date	Null	Date	No	No	No
revision_reason_code	Null	Varchar2	No	No	No
start_date_active	Null	Date	No	No	No
substitution_attribute	Null	Varchar2	No	No	No
substitution_context	Null	Varchar2	No	No	No
substitution_value	Null	Varchar2	No	No	No
return_status	Null	Varchar2	No	No	No
db_flag	Null	Varchar2	No	No	No
operation	Null	Varchar2	No	No	No
from_rltd_modifier_id	Null	Number	No	No	No
rltd_modifier_group_no	Null	Number	No	No	No
product_precedence	Null	Number	No	No	No

PRICE_LIST_LINE_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Price_List_Line_Rec_Type	Null	Record	No	No	No

PRICE_LIST_LINE_VAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
accrual_uom	Null	Varchar2	No	No	No
automatic	Null	Varchar2	No	No	No
base_uom	Null	Varchar2	No	No	No
generate_using_formula	Null	Varchar2	No	No	No
inventory_item	Null	Varchar2	No	No	No
list_header	Null	Varchar2	No	No	No
list_line	Null	Varchar2	No	No	No
list_line_type	Null	Varchar2	No	No	No
modifier_level	Null	Varchar2	No	No	No
organization	Null	Varchar2	No	No	No
override	Null	Varchar2	No	No	No
price_break_type	Null	Varchar2	No	No	No
price_by_formula	Null	Varchar2	No	No	No
primary_uom	Null	Varchar2	No	No	No
print_on_invoice	Null	Varchar2	No	No	No
rebate_transaction_type	Null	Varchar2	No	No	No
related_item	Null	Varchar2	No	No	No
relationship_type	Null	Varchar2	No	No	No
reprice	Null	Varchar2	No	No	No
revision_reason	Null	Varchar2	No	No	No

PRICE_LIST_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Price_List_Line_Val_Rec_ Type	Null	Record	No	No	No

QUALIFIERS_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
QP_Qualifier_Rules_ PUB.Qualifiers_Rec_Type	Null	Record	No	No	No

Refer to the Qualifiers public API for the definition.

QUALIFIERS_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
QP_Qualifier_Rules_ PUB.Qualifiers_Tbl_Type	Null	Record	No	No	No

Refer to the Qualifiers public API for the definition.

QUALIFIERS_VAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
QP_Qualifier_Rules_ PUB.Qualifiers_Val_Rec_ Type	Null	Record	No	No	No

Refer to the Qualifiers public API for the definition.

QUALIFIERS_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
QP_Qualifier_Rules_ PUB.Qualifiers_Val_Tbl_ Type	Null	Record	No	No	No

Refer to the Qualifiers public API for the definition.

PRICING_ATTR_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
accumulate_flag	Null	Varchar2	No	No	No
attribute1	Null	Varchar2	No	No	No
attribute2	Null	Varchar2	No	No	No
attribute3	Null	Varchar2	No	No	No
attribute4	Null	Varchar2	No	No	No
attribute5	Null	Varchar2	No	No	No
attribute6	Null	Varchar2	No	No	No
attribute7	Null	Varchar2	No	No	No
attribute8	Null	Varchar2	No	No	No
attribute9	Null	Varchar2	No	No	No
attribute10	Null	Varchar2	No	No	No
attribute11	Null	Varchar2	No	No	No
attribute12	Null	Varchar2	No	No	No
attribute13	Null	Varchar2	No	No	No
attribute14	Null	Varchar2	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
attribute15	Null	Varchar2	No	No	No
attribute_grouping_number	Null	Number	No	No	No
context	Null	Varchar2	No	No	No
created_by	Null	Number	No	No	No
creation_date	Null	Date	No	No	No
excluder_flag	Null	Varchar2	No	No	No
last_updated_by	Null	Number	No	No	No
last_update_date	Null	Date	No	No	No
last_update_login	Null	Number	No	No	No
list_line_id	Null	Number	No	No	No
pricing_attribute	Null	Varchar2	No	No	No
pricing_attribute_context	Null	Varchar2	No	No	No
pricing_attribute_id	Null	Number	No	No	No
pricing_attr_value_from	Null	Varchar2	No	No	No
pricing_attr_value_to	Null	Varchar2	No	No	No
product_attribute	Null	Varchar2	Yes	No	No
product_attribute_context	Null	Varchar2	Yes	No	No
product_attr_value	Null	Varchar2	Yes	No	No
product_uom_code	Null	Varchar2	Yes	No	No
program_application_id	Null	Number	No	No	No
program_id	Null	Number	No	No	No
program_update_date	Null	Date	No	No	No
request_id	Null	Number	No	No	No
return_status	Null	Varchar2	No	No	No
db_flag	Null	Varchar2	No	No	No
operation	Null	Varchar2	Yes	No	No
PRICE_LIST_LINE_index	Null	Number	No	No	No
from_rltd_modifier_id	Null	Number	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
comparison_operator_code	Null	Varchar2	Yes	No	No
product_attribute_datatype	Null	Varchar2	No	Yes	No
pricing_attribute_datatype	Null	Varchar2	No	Yes	No

PRICING_ATTR_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Pricing_Attr_Rec_Type	Null	Record	No	No	No

PRICING_ATTR_VAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
accumulate	Null	Varchar2	No	No	No
excluder	Null	Varchar2	No	No	No
list_line	Null	Varchar2	No	No	No
pricing_attribute	Null	Varchar2	No	No	No
product_uom	Null	Varchar2	No	No	No

PRICING_ATTR_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Pricing_Attr_Val_Rec_ Type	Null	Record	No	No	No

Validation of Price List Setup API

Standard Validation

Oracle Pricing validates all required columns in the Price List Setup API. 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 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.

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	null
Failure	4	actual error message

Sample code to illustrate the usage 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 Pricing User 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;  
gpr_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. 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;

```
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);

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;
```

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);
```

```
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.

Please read the Oracle Pricing User 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_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 1  
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_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);
```

```
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;

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);

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 will pass 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.

Please read the Oracle Pricing User 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_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 := '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);

    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;

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);

end;
/
commit;
exit;
```

1. 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 Pricing User 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);

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;
```

```
    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);
```

```
    end;
```

```
    /
```

```
    commit;
```

```
    exit;
```

See Also

Oracle Pricing Technical Reference Manual

Agreements Public Application Program Interface

This section explains how to use the Agreements Public API and how it functions in Oracle Pricing

Business Object for Pricing Limits API Features

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 the Agreements Public API

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.

Parameter	Usage	Type	Required	Derived	Optional
p_api_version_number	IN	Number	No	No	No
p_init_msg_list	IN	Varchar2	No	No	No
p_return_values	IN	Varchar2	No	No	No
p_commit	IN	Varchar2	No	No	No
x_return_status	OUT	Varchar2	No	No	No
x_msg_count	OUT	Number	No	No	No
x_msg_data	OUT	Varchar2	No	No	No
p_Agreement_rec	IN	Agreement_Rec_ Type	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
p_Agreement_value_rec	IN	Agreement_Val_Rec_Type	No	No	No
p_Price_LHeader_rec	IN	QP_Price_List_PUB.Price_List_Rec_Type	No	No	No
p_Price_LHeader_val_rec	IN	QP_Price_List_PUB.Price_List_Val_Rec_Type	No	No	No
p_Price_LLine_tbl	IN	QP_Price_List_PUB.Price_List_Line_Tbl_Type	No	No	No
p_Price_LLine_val_tbl	IN	QP_Price_List_PUB.Price_List_Val_Tbl_Type	No	No	No
p_Pricing_Attr_tbl	IN	QP_Price_List_PUB.Pricing_Attr_Tbl_Type	No	No	No
p_Pricing_Attr_val_tbl	IN	QP_Price_List_PUB.Pricing_Attr_Val_Tbl_Type	No	No	No
x_Agreement_rec	OUT	Agreement_Rec_Type	No	No	No
x_Agreement_val_rec	OUT	Agreement_Val_Rec_Type	No	No	No
x_Price_LHeader_rec	OUT	QP_Price_List_PUB.Price_List_Rec_Type	No	No	No
x_Price_LHeader_val_rec	OUT	QP_Price_List_PUB.Price_List_Val_Rec_Type	No	No	No
x_Price_LLine_tbl	OUT	QP_Price_List_PUB.Price_List_Line_Tbl_Type	No	No	No
x_Price_LLine_val_tbl	OUT	QP_Price_List_PUB.Price_List_Line_Val_Tbl_Type	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
x_Pricing_Attr_tbl	OUT	QP_Price_List_PUB.Pricing_Attr_Tbl_Type	No	No	No
x_Pricing_Attr_val_tbl	OUT	QP_Price_List_PUB.Pricing_Attr_Val_Tbl_Type	No	No	No

AGREEMENT_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
accounting_rule_id	Null	Number	No	No	No
agreement_contact_id	Null	Number	No	No	No
agreement_id	Null	Number	Yes, for update and delete	No	No
agreement_num	Null	Varchar2(50)	No	No	No
agreement_type_code	Null	Varchar2(30)	No	No	No
attribute1	Null	Varchar2(150)	No	No	No
attribute2	Null	Varchar2(150)	No	No	No
attribute3	Null	Varchar2(150)	No	No	No
attribute4	Null	Varchar2(150)	No	No	No
attribute5	Null	Varchar2(150)	No	No	No
attribute6	Null	Varchar2(150)	No	No	No
attribute7	Null	Varchar2(150)	No	No	No
attribute8	Null	Varchar2(150)	No	No	No
attribute9	Null	Varchar2(150)	No	No	No
attribute10	Null	Varchar2(150)	No	No	No
attribute11	Null	Varchar2(150)	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
attribute12	Null	Varchar2(150)	No	No	No
attribute13	Null	Varchar2(150)	No	No	No
attribute14	Null	Varchar2(150)	No	No	No
attribute15	Null	Varchar2(150)	No	No	No
comments	Null	Varchar2(30)	No	No	No
context	Null	Varchar2(30)	No	No	No
created_by	Null	Number	Yes	No	No
creation_date	Null	Date	Yes	No	No
sold_to_org_id	Null	Number	No	No	No
end_date_active	Null	Date	No	No	No
freight_terms_code	Null	Varchar2(30)	No	No	No
invoice_contact_id	Null	Number	No	No	No
invoice_to_org_id	Null	Number	No	No	No
invoicing_rule_id	Null	Number	No	No	No
last_updated_by	Null	Number	Yes	No	No
last_update_date	Null	Date	Yes	No	No
last_update_login	Null	Number	No	No	No
name	Null	Varchar2(30)	Yes	No	No
override_arule_flag	Null	Varchar2(1)	Yes	No	No
override_irule_flag	Null	Varchar2(1)	Yes	No	No
price_list_id	Null	Number	Yes, if you are not passing a price list record	No	No
pricing_contract_id	Null	Number	No	No	No
purchase_order_num	Null	Varchar2(50)	No	No	No
revision	Null	Varchar2(50)	Yes	No	No
revision_date	Null	Date	Yes	No	No

Parameter	Usage	Type	Required	Derived	Optional
revision_reason_code	Null	Varchar2(30)	No	No	No
salesrep_id	Null	Number	No	No	No
ship_method_code	Null	Varchar2(30)	No	No	No
signature_date	Null	Date	No	No	No
start_date_active	Null	Date	No	No	No
term_id	Null	Number	Yes	No	No
return_status	Null	Varchar2(1)	No	No	No
db_flag	Null	Varchar2(1)	No	No	No
operation	Null	Varchar2(30)	Yes	No	No
tp_attribute1	Null	Varchar2(240)	No	No	No
tp_attribute2	Null	Varchar2(240)	No	No	No
tp_attribute3	Null	Varchar2(240)	No	No	No
tp_attribute4	Null	Varchar2(240)	No	No	No
tp_attribute5	Null	Varchar2(240)	No	No	No
tp_attribute6	Null	Varchar2(240)	No	No	No
tp_attribute7	Null	Varchar2(240)	No	No	No
tp_attribute8	Null	Varchar2(240)	No	No	No
tp_attribute9	Null	Varchar2(240)	No	No	No
tp_attribute10	Null	Varchar2(240)	No	No	No
tp_attribute11	Null	Varchar2(240)	No	No	No
tp_attribute12	Null	Varchar2(240)	No	No	No
tp_attribute13	Null	Varchar2(240)	No	No	No
tp_attribute14	Null	Varchar2(240)	No	No	No
tp_attribute15	Null	Varchar2(240)	No	No	No
tp_attribute_category	Null	Varchar2(30)	No	No	No

AGREEMENT_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Agreement_Rec_Type	Null	Record	No	No	No

AGREEMENT_VAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
accounting_rule	Null	Varchar2(240)	Null	Null	Null
agreement_contact	Null	Varchar2(240)	Null	Null	Null
agreement	Null	Varchar2(240)	Null	Null	Null
agreement_type	Null	Varchar2(240)	Null	Null	Null
customer	Null	Varchar2(240)	Null	Null	Null
freight_terms	Null	Varchar2(240)	Null	Null	Null
invoice_contact	Null	Varchar2(240)	Null	Null	Null
invoice_to_site_use	Null	Varchar2(240)	Null	Null	Null
invoicing_rule	Null	Varchar2(240)	Null	Null	Null
override_arule	Null	Varchar2(240)	Null	Null	Null
override_irule	Null	Varchar2(240)	Null	Null	Null
price_list	Null	Varchar2(240)	Null	Null	Null
revision_reason	Null	Varchar2(240)	Null	Null	Null
salesrep	Null	Varchar2(240)	Null	Null	Null
ship_method	Null	Varchar2(240)	Null	Null	Null
term	Null	Varchar2(240)	Null	Null	Null

AGREEMENT_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Agreement_Val_Rec_Type	Null	Record	No	No	No

PRICE_LIST_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
attribute1	Null	Varchar2	No	No	No
attribute2	Null	Varchar2	No	No	No
attribute3	Null	Varchar2	No	No	No
attribute4	Null	Varchar2	No	No	No
attribute5	Null	Varchar2	No	No	No
attribute6	Null	Varchar2	No	No	No
attribute7	Null	Varchar2	No	No	No
attribute8	Null	Varchar2	No	No	No
attribute9	Null	Varchar2	No	No	No
attribute10	Null	Varchar2	No	No	No
attribute11	Null	Varchar2	No	No	No
attribute12	Null	Varchar2	No	No	No
attribute13	Null	Varchar2	No	No	No
attribute14	Null	Varchar2	No	No	No
attribute15	Null	Varchar2	No	No	No
automatic_flag	Null	Varchar2	No	No	No
comments	Null	Varchar2	No	No	No
context	Null	Varchar2	No	No	No
created_by	Null	Number	No	No	No
creation_date	Null	Date	No	No	No
currency_code	Null	Varchar2	Yes	No	No

Parameter	Usage	Type	Required	Derived	Optional
discount_lines_flag	Null	Varchar2	No	No	No
end_active_date	Null	Date	No	No	No
freight_terms_code	Null	Varchar2	No	No	No
gsa_indicator	Null	Varchar2	No	No	No
last_updated_by	Null	Number	No	No	No
last_update_date	Null	Date	No	No	No
last_update_login	Null	Number	No	No	No
list_header_id	Null	Number	No	No	No
list_type_code	Null	Varchar2	No	No	No
program_application_id	Null	Number	No	No	No
program_id	Null	Number	No	No	No
program_update_date	Null	Date	No	No	No
prorate_flag	Null	Varchar2	No	No	No
request_id	Null	Number	No	No	No
rounding_factor	Null	Number	No	No	No
ship_method_code	Null	Varchar2	No	No	No
start_date_active	Null	Date	No	No	No
terms_id	Null	Number	No	No	No
return_status	Null	Varchar2	No	No	No
db_flag	Null	Varchar2	No	No	No
operation	Null	Varchar2	Yes	No	No
name	Null	Varchar2	Yes	No	No
description	Null	Varchar2	No	No	No
version_no	Null	Varchar2	No	No	No

PRICE_LIST_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Price_List_Rec_Type	Null	Record	No	No	No

PRICE_LIST_VAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
automatic	Null	Varchar2	No	No	No
currency	Null	Varchar2	No	No	No
discount_lines	Null	Varchar2	No	No	No
freight_terms	Null	Varchar2	No	No	No
list_header	Null	Varchar2	No	No	No
list_type	Null	Varchar2	No	No	No
prorate	Null	Varchar2	No	No	No
ship_method	Null	Varchar2	No	No	No
terms	Null	Varchar2	No	No	No

PRICE_LIST_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Price_List_Val_Rec_Type	Null	Record	No	No	No

PRICE_LIST_LINE_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
accrual_qty	Null	Number	No	No	No
accrual_uom_code	Null	Varchar2	No	No	No
arithmetic_operator	Null	Varchar2	No	No	No
attribute1	Null	Varchar2	No	No	No
attribute2	Null	Varchar2	No	No	No
attribute3	Null	Varchar2	No	No	No
attribute4	Null	Varchar2	No	No	No
attribute5	Null	Varchar2	No	No	No
attribute6	Null	Varchar2	No	No	No
attribute7	Null	Varchar2	No	No	No
attribute8	Null	Varchar2	No	No	No
attribute9	Null	Varchar2	No	No	No
attribute10	Null	Varchar2	No	No	No
attribute11	Null	Varchar2	No	No	No
attribute12	Null	Varchar2	No	No	No
attribute13	Null	Varchar2	No	No	No
attribute14	Null	Varchar2	No	No	No
attribute15	Null	Varchar2	No	No	No
automatic_flag	Null	Varchar2	No	No	No
base_qty	Null	Number	No	No	No
base_uom_code	Null	Varchar2	No	No	No
comments	Null	Varchar2	No	No	No
context	Null	Varchar2	No	No	No
created_by	Null	Number	No	No	No
creation_date	Null	Date	No	No	No
effective_period_uom	Null	Varchar2	No	No	No
end_date_active	Null	Date	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
estim_accrual_rate	Null	Number	No	No	No
generate_using_formula_id	Null	Number	No	No	No
inventory_item_id	Null	Number	No	No	No
last_updated_by	Null	Number	No	No	No
last_update_date	Null	Date	No	No	No
last_update_login	Null	Number	No	No	No
list_header_id	Null	Number	No	No	No
list_line_id	Null	Number	No	No	No
list_line_type_code	Null	Varchar2	No	No	No
list_price	Null	Number	No	No	No
modifier_level_code	Null	Varchar2	No	No	No
number_effective_periods	Null	Number	No	No	v
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	v	
price_by_formula_id	Null	Number	No	No	
primary_uom_flag	Null	Varchar2	No	No	
print_on_invoice_flag	Null	Varchar2	No	No	No
program_application_id	Null	Number	No	No	No
program_id	Null	Number	No	No	No
program_update_date	Null	Date	No	No	No
rebate_trxn_type_code	Null	Varchar2	No	No	No
related_item_id	Null	Number	No	No	No
relationship_type_id	Null	Number	No	No	No
reprice_flag	Null	Varchar2	No	No	No
request_id	Null	Number	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
revision	Null	Varchar2	No	No	No
revision_date	Null	Date	No	No	No
revision_reason_code	Null	Varchar2	No	No	No
start_date_active	Null	Date	No	No	No
substitution_attribute	Null	Varchar2	No	No	No
substitution_context	Null	Varchar2	No	No	No
substitution_value	Null	Varchar2	No	No	No
return_status	Null	Varchar2	No	No	No
db_flag	Null'	Varchar2	No	No	No
operation	Null	Varchar2	No	No	No
from_rltd_modifier_id	Null	Number	No	No	No
rltd_modifier_group_no	Null	Number	No	No	No
product_precedence	Null	Number	No	No	No

PRICE_LIST_LINE_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Price_List_Line_Rec_Type	Null	Record	No	No	No

PRICE_LIST_LINE_VAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
accrual_uom	Null	Varchar2	No	No	No
automatic	Null	Varchar2	No	No	No
base_uom	Null	Varchar2	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
generate_using_formula	Null	Varchar2	No	No	No
inventory_item	Null	Varchar2	No	No	No
list_header	Null	Varchar2	No	No	No
list_line	Null	Varchar2	No	No	No
list_line_type	Null	Varchar2	No	No	No
modifier_level	Null	Varchar2	No	No	No
organization	Null	Varchar2	No	No	No
override	Null	Varchar2	No	No	No
price_break_type	Null	Varchar2	No	No	No
price_by_formula	Null	Varchar2	No	No	No
primary_uom	Null	Varchar2	No	No	No
print_on_invoice	Null	Varchar2	No	No	No
rebate_transaction_type	Null	Varchar2	No	No	No
related_item	Null	Varchar2	No	Null	Null
relationship_type	Null	Varchar2	No	Null	Null
reprice	Null	Varchar2	No	Null	Null
revision_reason	Null	Varchar2	No	Null	Null

PRICE_LIST_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Price_List_Line_Val_Rec_Type	Null	Record	No	No	No

PRICING_ATTR_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
accumulate_flag	Null	Varchar2	No	No	No
attribute1	Null	Varchar2	No	No	No
attribute2	Null	Varchar2	No	No	No
attribute3	Null	Varchar2	No	No	No
attribute4	Null	Varchar2	No	No	No
attribute5	Null	Varchar2	No	No	No
attribute6	Null	Varchar2	No	No	No
attribute7	Null	Varchar2	No	No	No
attribute8	Null	Varchar2	No	No	No
attribute9	Null	Varchar2	No	No	No
attribute10	Null	Varchar2	No	No	No
attribute11	Null	Varchar2	No	No	No
attribute12	Null	Varchar2	No	No	No
attribute13	Null	Varchar2	No	No	No
attribute14	Null	Varchar2	No	No	No
attribute15	Null	Varchar2	No	No	No
attribute_grouping_number	Null	Number	No	No	No
context	Null	Varchar2	No	No	No
created_by	Null	Number	No	No	No
creation_date	Null	Date	No	No	No
excluder_flag	Null	Varchar2	No	No	No
last_updated_by	Null	Number	No	No	No
last_update_date	Null	Date	No	No	No
last_update_login	Null	Number	No	No	No
list_line_id	Null	Number	No	No	No
pricing_attribute	Null	Varchar2	No	No	No
pricing_attribute_context	Null	Varchar2	No	No	No

Parameter	Usage	Type	Required	Derived	Optional
pricig_attribute_id	Null	Number	No	No	No
pricing_attr_value_from	Null	Varchar2	No	No	No
pricing_attr_value_to	Null	Varchar2	No	No	No
product_attribute	Null	Varchar2	Yes	No	No
product_attribute_context	Null	Varchar2	Yes	No	No
product_attr_value	Null	Varchar2	Yes	No	No
product_uom_code	Null	Varchar2	Yes	No	No
program_application_id	Null	Number	No	No	No
program_id	Null	Number	No	No	No
program_update_date	Null	Date	No	No	No
request_id	Null	Number	No	No	No
return_status	Null	Varchar2	No	No	No
db_flag	Null	Varchar2	No	No	No
operation	Null	Varchar2	Yes	No	No
PRICE_LIST_LINE_index	Null	Number	No	No	No
from_rltd_modifier_id	Null	Number	No	No	No
comparison_operator_code	Null	Varchar2	Yes	No	No
product_attribute_datatype	Null	Varchar2	No	Yes	No
pricing_attrubute_datatype	Null	Varchar2	No	Yes	No

PRICING_ATTR_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Pricing_Attr_Rec_Type	Null	Record	No	No	No

PRICING_ATTR_VAL_REC_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
accumulate	Null	Varchar2	No	No	No
excluder	Null	Varchar2	No	No	No
list_line	Null	Varchar2	No	No	No
pricing_attribute	Null	Varchar2	No	No	No
product_uom	Null	Varchar2	No	No	No

PRICE_LIST_VAL_TBL_TYPE

The following table shows the parameters for this structure.

Parameter	Usage	Type	Required	Derived	Optional
Pricing_Attr_Val_Rec_ Type	Null	Record	No	No	No

Validation of Agreements Public API

Standard Validation

Oracle Pricing validates all required columns in the Agreements Public API. 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 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.

Condition	PROCESS_STATUS	ERROR_MESSAGE
Success	5	null

Condition	PROCESS_STATUS	ERROR_MESSAGE
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_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 := '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_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 := '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;
        end if;
    end process_agreement;
end;
```



```

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_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;

```

Release Management Open Interface

Topics covered in the Oracle Release Management Open Interface are:

- Understanding the Interface Tables on page 4-2
- Column Descriptions on page 4-5
- RLM_INTERFACE_LINES_ALL on page 4-13

Understanding the Interface Tables

Oracle Release Management uses two Oracle tables in which the Demand Processor receives data you import from other systems.

- RLM_INTERFACE_HEADERS
- RLM_INTERFACE_LINES

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_CITY_EXT	VARCHAR2(30)			X
CUST_COUNTRY_EXT	VARCHAR2(3)			X
CUST_COUNTY_EXT	VARCHAR2(25)			X
CUSTOMER_EXT	VARCHAR2(30)			X
CUST_NAME_EXT	VARCHAR2(20)			X
CUST_POSTAL_CD_EXT	VARCHAR2(15)			X
CUST_PROVINCE_EXT	VARCHAR2(10)			X
CUST_STATE_EXT	VARCHAR2(10)			X
CUSTOMER_ID	NUMBER			X

Table 4-1 RLM_INTERFACE_HEADERS_ALL

Column Name	Type	Required	Derived	Optional
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_NOTE_TEXT	VARCHAR2(240)			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	

Table 4–1 RLM_INTERFACE_HEADERS_ALL

Column Name	Type	Required	Derived	Optional
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
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	

Table 4–1 RLM_INTERFACE_HEADERS_ALL

Column Name	Type	Required	Derived	Optional
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
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

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_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.	
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_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=waiting to be processed
- 3=in process
- 4=error

- 5=processed
- 6='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 EDI or manual transaction source for this schedule, i.e. 830, 862, DELFOR, MANUAL, etc.	VARCHAR2(30)
LAST_UPDATE_DATE Standard Who column.	DATE
LAST_UPDATED_BY Standard Who column.	NUMBER
CREATION_DATE Standard Who column.	DATE
CREATED_BY Standard Who column.	NUMBER
ATTRIBUTE_CATEGORY Descriptive flexfield context column.	VARCHAR2(30)
ATTRIBUTE1 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE2 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE3 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE4 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE5 Descriptive flexfield segment column.	VARCHAR2(150)

ATTRIBUTE6 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE7 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE8 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE9 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE10 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE11 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE12 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE13 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE14 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE15 Descriptive flexfield segment column.	VARCHAR2(150)
LAST_UPDATE_LOGIN Standard Who column.	NUMBER
REQUEST_ID Standard Who column.	NUMBER

PROGRAM_APPLICATION_ID Standard Who column.	NUMBER
PROGRAM_ID Standard Who column.	NUMBER
PROGRAM_UPDATE_DATE Standard Who column.	DATE
TP_ATTRIBUTE1 Trading Partner flexfield column.	VARCHAR2(150)
TP_ATTRIBUTE2 Trading Partner flexfield column.	VARCHAR2(150)
TP_ATTRIBUTE3 Trading Partner flexfield column.	VARCHAR2(150)
TP_ATTRIBUTE4 Trading Partner flexfield column.	VARCHAR2(150)
TP_ATTRIBUTE5 Trading Partner flexfield column.	VARCHAR2(150)
TP_ATTRIBUTE6 Trading Partner flexfield column.	VARCHAR2(150)
TP_ATTRIBUTE7 Trading Partner flexfield column.	VARCHAR2(150)
TP_ATTRIBUTE8 Trading Partner flexfield column.	VARCHAR2(150)
TP_ATTRIBUTE9 Trading Partner flexfield column.	VARCHAR2(150)

TP_ATTRIBUTE10 Trading Partner flexfield column.	VARCHAR2(150)
TP_ATTRIBUTE11 Trading Partner flexfield column.	VARCHAR2(150)
TP_ATTRIBUTE12 Trading Partner flexfield column.	VARCHAR2(150)
TP_ATTRIBUTE13 Trading Partner flexfield column.	VARCHAR2(150)
TP_ATTRIBUTE14 Trading Partner flexfield column.	VARCHAR2(150)
TP_ATTRIBUTE15 Trading Partner flexfield column.	VARCHAR2(150)
TP_ATTRIBUTE_CATEGORY Trading Partner flexfield context column.	VARCHAR2(30)

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

Table 4-2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
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
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

Table 4-2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
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	
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

Table 4-2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
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
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

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
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
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

Table 4-2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
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
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

Table 4-2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
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
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

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
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
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

Table 4-2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
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
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

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
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	
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

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
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
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

Table 4–2 RLM_INTERFACE_LINES_ALL

Column Name	Type	Required	Derived	Optional
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

Column Descriptions

LINE_ID Sequence generated unique identifier.	NUMBER
HEADER_ID Sequence generated unique identifier foreign key to the RLM_INTERFACE_HEADERS_ALL.	NUMBER
AGREEMENT_ID Unique identifier for agreement on which customer purchase order is associated. FK to RA_AGREEMENTS	NUMBER
ATO_DATA_TYPE 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	VARCHAR2(30)
BILL_TO_ADDRESS_1_EXT Bill to address line 1, as sent by the customer on the N3 segment.	VARCHAR2(35)
BILL_TO_ADDRESS_2_EXT Bill to address line 2, as sent by the customer on the N3 segment.	VARCHAR2(35)

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 Customer's import license for shipment destination country.	VARCHAR2(35)
INDUSTRY_ATTR IBUTE1 Record keeping or model year.	VARCHAR2(150)
INDUSTRY_ATTRIBUTE10 Industry descriptive flexfield.	VARCHAR2(150)
INDUSTRY_ATTRIBUTE11 Industry descriptive flexfield.	VARCHAR2(150)
INDUSTRY_ATTRIBUTE12 Industry descriptive flexfield.	VARCHAR2(150)
INDUSTRY_ATTRIBUTE13 Industry descriptive flexfield.	VARCHAR2(150)
INDUSTRY_ATTRIBUTE14 Industry descriptive flexfield.	VARCHAR2(150)
INDUSTRY_ATTRIBUTE15 Industry descriptive flexfield.	VARCHAR2(150)
INDUSTRY_ATTRIBUTE2 Industry descriptive flexfield.	VARCHAR2(150)
INDUSTRY_ATTRIBUTE3 Industry descriptive flexfield.	VARCHAR2(150)
INDUSTRY_ATTRIBUTE4 Industry descriptive flexfield.	VARCHAR2(150)
INDUSTRY_ATTRIBUTE5 Industry descriptive flexfield.	VARCHAR2(150)

INDUSTRY_ATTRIBUTE6 Industry descriptive flexfield.	VARCHAR2(150)
INDUSTRY_ATTRIBUTE7 Industry descriptive flexfield.	VARCHAR2(150)
INDUSTRY_ATTRIBUTE8 Industry descriptive flexfield.	VARCHAR2(150)
INDUSTRY_ATTRIBUTE9 Industry descriptive flexfield.	VARCHAR2(150)
INDUSTRY_CONTEXT Industry descriptive context flexfield.	VARCHAR2(30)
INTERMEDIATE_SHIP_TO_ID Customer intermediate ship-to destination unique identifier. FK to RA_ADDRESSES	NUMBER
SHIP_TO_ORG_ID 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.	NUMBER
INTRMD_ST_ADDRESS_1_EXT Intermediate ship to address line 1, as sent by the customer on the N3 segment.	VARCHAR2(35)
INTRMD_ST_ADDRESS_2_EXT Intermediate ship to address line 2, as sent by the customer on the N3 segment.	VARCHAR2(35)
INTRMD_ST_ADDRESS_3_EXT Intermediate ship to address line 3, as sent by the customer on the N3 segment.	VARCHAR2(35)

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 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT11 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT12 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT13 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT14 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT15 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT16 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT17 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT18 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT19 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT2 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT20 Accounting flexfield.	VARCHAR2(40)

INVENTORY_ITEM_SEGMENT3 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT4 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT5 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT6 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT7 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT8 Accounting flexfield.	VARCHAR2(40)
INVENTORY_ITEM_SEGMENT9 Accounting flexfield.	VARCHAR2(40)
ITEM_CONTACT_CODE_1 Contact code 1 included in customer's EDI transaction.	VARCHAR2(3)
ITEM_CONTACT_CODE_2 Contact code 2 included in customer's EDI transaction.	VARCHAR2(3)
ITEM_CONTACT_VALUE_1 Values associated with contact code 1: concatenation of name, communication code, and communication number.	VARCHAR2(80)
ITEM_CONTACT_VALUE_2 Values associated with contact code 2 : concatenation of name, communication code, and communication number.	VARCHAR2(80)

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 Firm, 1 = Firm Demand, 2 = Forecast Demand, 3 = Authorization, 4 = Shipment/Receipt Info, 5 = Other. Validated 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
Customer's letter of credit expiration date.	
LETTER_CREDIT_EXT	VARCHAR2(35)
Customer's 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 Quantity in the primary UOM.	NUMBER
PRIMARY_UOM_CODE Primary unit of measure. FK to MTL_UNITS_OF_MEASURE	VARCHAR2(3)
PRIME_CONTRCTR_PART_EXT The prime contractor part number, as sent by the customer on the LIN segment of the 862 segment.	VARCHAR2(35)
PROCESS_STATUS 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	NUMBER
CUST_PO_RELEASE_NUM Customer purchase order release number included on schedule.	VARCHAR2(35)
CUST_PO_DATE Customer purchase order line number included on schedule.	DATE
CUST_PO_LINE_NUM Customer-specified effectivity date of purchase order number included on schedule.	VARCHAR2(35)
CUST_PO_NUMBER Customer purchase order number.	VARCHAR2(50)

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 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE6 Descriptive flexfield segment column	VARCHAR2(150)
ATTRIBUTE7 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE8 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE9 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE10 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE11 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE12 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE13 Descriptive flexfield segment column.	VARCHAR2(150)
ATTRIBUTE14 Descriptive flexfield segment column	VARCHAR2(150)
ATTRIBUTE15 Descriptive flexfield segment column.	VARCHAR2(150)
LAST_UPDATE_LOGIN Standard Who column.	NUMBER

REQUEST_ID Standard Who column.	NUMBER
PROGRAM_APPLICATION_ID Standard Who column	NUMBER
PROGRAM_ID Standard Who column.	NUMBER
PROGRAM_UPDATE_DATE Standard Who column.	DATE
TP_ATTRIBUTE1 Trading partner flexfield segment column.	VARCHAR2(150)
TP_ATTRIBUTE2 Trading partner flexfield segment column.	VARCHAR2(150)
TP_ATTRIBUTE3 Trading partner flexfield segment column.	VARCHAR2(150)
TP_ATTRIBUTE4 Trading partner flexfield segment column.	VARCHAR2(150)
TP_ATTRIBUTE5 Trading partner flexfield segment column.	VARCHAR2(150)
TP_ATTRIBUTE6 Trading partner flexfield segment column.	VARCHAR2(150)
TP_ATTRIBUTE7 Trading partner flexfield segment column.	VARCHAR2(150)
TP_ATTRIBUTE8 Trading partner flexfield segment column.	VARCHAR2(150)

TP_ATTRIBUTE9 Trading partner flexfield segment column.	VARCHAR2(150)
TP_ATTRIBUTE10 Trading partner flexfield segment column.	VARCHAR2(150)
TP_ATTRIBUTE11 Trading partner flexfield segment column.	VARCHAR2(150)
TP_ATTRIBUTE12 Trading partner flexfield segment column.	VARCHAR2(150)
TP_ATTRIBUTE13 Trading partner flexfield segment column.	VARCHAR2(150)
TP_ATTRIBUTE14 Trading partner flexfield segment column.	VARCHAR2(150)
TP_ATTRIBUTE15 Trading partner flexfield segment column.	VARCHAR2(150)
TP_ATTRIBUTE_CATEGORY Trading partner flexfield context column.	VARCHAR2(30)
LINE_NUMBER Unique identifier of a line within a schedule.	NUMBER
INTMED_SHIP_TO_ORG_ID 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	NUMBER
LINE_SOURCE Schedule Source at line level since lines can also be manually entered.	VARCHAR2(30)

PREFERRED_GRADE

Preferred grade.

VARCHAR2(4)

Oracle Shipping Execution 11i Public APIs

This chapter contains information about the following Oracle Shipping Execution public application program interfaces (APIs):

- Trip Public Application Program Interface on page 5-2
- Stop Public Application Program Interface on page 5-11
- Deliveries Public Application Program Interface on page 5-21
- Delivery Details Public Application Program Interface on page 5-39
- Container Public Application Program Interface on page 5-60
- Freight Costs Public Application Program Interface on page 5-78
- Examples of APIs used in Simple Shipment Flows on page 5-92

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.

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 Name of trip that is needed 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.

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
attribute11	Varchar2(150)	fnd_api.g_miss_char

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
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.

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	

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.

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.

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

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
attribute5	Varchar2(150)	fnd_api.g_miss_char

Attribute	Type	Default Value
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.

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	
p_trip_id	IN	Number	

Parameter	Usage	Type	Required
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 two 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.

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.

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.

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

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
currency_code	Varchar2(15)	fnd_api.g_miss_char

Attribute	Type	Default
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
tp_attribute9	Varchar2(150)	fnd_api.g_miss_char
tp_attribute10	Varchar2(150)	fnd_api.g_miss_char

Attribute	Type	Default
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
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

Attribute	Type	Default
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.

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
- **PACK, RE-OPEN, IN-TRANSIT, 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.

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	
p_sc_stage_del_flag	IN	Varchar2	
p_sc_trip_ship_method	IN	Varchar2	
p_sc_actual_dep_date	IN	Varchar2	

Parameter	Usage	Type	Required
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, PACK, CONFIRM, RE-OPEN, IN-TRANSIT, 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.

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.

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 identify 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.

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	

Parameter	Usage	Type	Required
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 checks that the attribute parameters passed in are valid and perform value to id conversion while validating. And then it calls WSH_INTERFACE.Update_Shipping_Attributes.

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.

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_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.'

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.

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

Attribute	Type	Default Value
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
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

Attribute	Type	Default Value
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
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.

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.

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 => 1

- `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.

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.

Parameter	Usage	Type	Required
p_api_version_number	IN	Number	x
p_init_msg_list	IN	Varchar2	
p_commit	IN	Varchar2	

Parameter	Usage	Type	Required
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.

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.

Attribute	Type	Default Value
<code>source_header_id</code>	Number	<code>fnd_api.g_miss_num</code>

Attribute	Type	Default Value
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
serial_number	Varchar2(30)	fnd_api.g_miss_char
locator_id	Number	fnd_api.g_miss_num

Attribute	Type	Default Value
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
arrival_set_id	Number	fnd_api.g_miss_num
ship_model_complete_flag	Varchar2(1)	fnd_api.g_miss_char

Attribute	Type	Default Value
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.

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	

Parameter	Usage	Type	Required
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.

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	

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 and **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.

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.

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
attribute5	Varchar2(150)	fnd_api.g_miss_char

Attribute	Type	Default Value
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.

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 cost 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.

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.

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
attribute5	Varchar2(150)	fnd_api.g_miss_char

Attribute	Type	Default Value
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.

Examples of APIs used in Simple Shipment Flows

The following examples demonstrate two simple procedures that use the shipping public APIs. Both procedures are contained in the same package. For more information on the use of the package, see the sample script at the end of the package information.

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);

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;
```

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.

2. 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.
3. Call WSH_FREIGHT_COSTS_PUB.Create_Update_Freight_Costs API to create freight costs for the delivery that the details have been assigned to.
4. Call WSH_CONTAINER_PUB.Auto_Pack to pack the delivery lines into a container.
5. 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;

/* 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.

1. Call WSH_DELIVERIES_PUB.CREATE_UPDATE_DELIVERY to create a new delivery.
2. Call WSH_DELIVERY_DETAILS_PUB.Detail_to_Delivery to assign the delivery details to the new delivery.
3. Call WSH_DELIVERIES_PUB.Delivery_Action to ship confirm.

*/

```
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;
```

Example of a 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;  
/
```

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