

Oracle® Order Management

Implementation Manual, Volumes 1 and 2

Release 11i

Part No. A95861-02

October 17, 2003

Copyright © 2000, 2003 Oracle Corporation. All rights reserved.

Contributing Authors: Francesca Amezquita, Rajeev Bellamkonda, Reb Bowman, Sagar Boyapati, Zeeshan Butt, Charlene Chandonia, Manish Chavan, Ginger Conroy, Tim Conroy, Michael Cummings, Shashi Dhar, Sasi Erla, Susan Flierl, Joshua Gould, Nitin Hase, Linda Henry, Jayarama Holla, Matilde Jareno, Carol Knight, Pradeep Kumar, Nithya Lakshmanan, Vivian Y. Lee, Monica Loomis, Maria Matheny, Vidyesh Mishra, Sameer Phatarpekar, Vijay Pillarisetti, Hemalatha Raman, Sumeet Rijhsinghani, Sandy Rota, William Rudge, Leena Sampemane, Esha Sen, Rohit Shivram, Alok Singh, Renganathan Sreenivasan, Kannan Tarakad, Lynn Warneka, Samuel Wong, John Young, and Jessica Zhang

Contributors: John Brazier, Thomas Dobbs, Elizabeth Looney, Jennifer Covert Mosinski, Tom Myers, David Reitan, and John Salvini

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

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

If the Programs are delivered to the U.S. Government or anyone licensing or using the programs on behalf of the U.S. Government, the following notice is applicable:

Restricted Rights Notice Programs delivered subject to the DOD FAR Supplement are "commercial computer software" and use, duplication, and disclosure of the Programs, including documentation, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement. Otherwise, Programs delivered subject to the Federal Acquisition Regulations are "restricted computer software" and use, duplication, and disclosure of the Programs shall be subject to the restrictions in FAR 52.227-19, Commercial Computer Software - Restricted Rights (June, 1987). Oracle Corporation, 500 Oracle Parkway, Redwood City, CA 94065.

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

Oracle is a registered trademark, and Oracle *MetaLink*, Oracle8, Oracle*8i*, Oracle Store, and SQL*Plus are trademarks or registered trademarks of Oracle Corporation. Other names may be trademarks of their respective owners.

Contents

| | |
|--|------------|
| Send Us Your Comments | xix |
| Preface..... | xxi |
| Audience for This Guide | xxi |
| How To Use This Guide | xxi |
| Documentation Accessibility | xxiii |
| Other Information Sources | xxiv |
| Online Documentation..... | xxiv |
| Related User's Guides..... | xxiv |
| Installation and System Administration | xxxii |
| Other Implementation Documentation | xxxiv |
| Training and Support..... | xxxv |
| Do Not Use Database Tools to Modify Oracle Applications Data | xxxv |
| About Oracle | xxxvi |
| Your Feedback..... | xxxvi |
| 1 Introduction to Order Management Suite Implementation | |
| Overview of the Oracle Order Management Suite | 1-2 |
| Oracle Order Management Suite Implementation Manual | 1-4 |
| 2 Oracle Order Management Setup | |
| Overview of Setup | 2-3 |
| Setup Steps..... | 2-3 |

| | |
|--|--------------|
| Oracle Order Management Recommended Implementation..... | 2-3 |
| Setup Steps with Documentation References | 2-4 |
| Setup Steps Defined in Detail | 2-6 |
| Profile Options | 2-16 |
| Define Tax Features | 2-57 |
| Define QuickCodes | 2-61 |
| Defining Freight and Special Charge Types..... | 2-62 |
| Setup for Integration with Transportation for Freight Rating | 2-70 |
| Viewing Notifications | 2-76 |
| Defining Document Sequences for Order Numbering..... | 2-76 |
| Define Order Management Transaction Types | 2-79 |
| Defining Sales Credit Types..... | 2-96 |
| Defining Order Import Sources | 2-97 |
| Setup for High Volume Order Processing | 2-98 |
| Define Processing Constraints | 2-98 |
| Defining Validation Templates | 2-110 |
| Defining Record Sets | 2-112 |
| Define Defaulting Rules | 2-114 |
| Define Credit Checking Rules | 2-131 |
| iPayment Processing..... | 2-160 |
| Defining Automatic Holds..... | 2-163 |
| Overview of Attachments..... | 2-167 |
| Defining Documents in Advance | 2-170 |
| Defining Attachment Addition Rules | 2-171 |
| Defining Document Categories | 2-171 |
| Overview of Shipping Tolerances | 2-175 |
| Defining Shipping Tolerances | 2-177 |
| Setup for Blanket Sales Agreements..... | 2-179 |
| Release Management Integration Setup for Blanket Sales Agreements | 2-179 |
| Shipping Across Orders Setup..... | 2-181 |
| Gross Margin | 2-182 |
| User Item Description | 2-183 |
| Setup for Related Items | 2-183 |
| Trading Community usage within Order Management..... | 2-184 |

3 Oracle Configurator Setup Requirements

| | |
|-------------------|-----|
| Overview | 3-2 |
| Configurator..... | 3-2 |

4 Oracle Shipping Execution Setup

| | |
|--|------|
| Overview of Setup..... | 4-3 |
| Setup Steps..... | 4-6 |
| Profile Options | 4-10 |
| Defining Roles and Users | 4-14 |
| Upgrading and New Installation Considerations for Roles and Users..... | 4-15 |
| Defining a New Role..... | 4-15 |
| Copying an Existing Role | 4-22 |
| Granting a Role to a User | 4-22 |
| Finding Grants and Roles..... | 4-26 |
| Updating a User's Grant..... | 4-28 |
| Defining Shipping Parameters | 4-29 |
| Defining General Parameters..... | 4-30 |
| Defining Pick Release Parameters..... | 4-33 |
| Defining Shipping Transaction Parameters..... | 4-38 |
| Defining Delivery Grouping Parameters..... | 4-41 |
| Defining Freight Carrier Ship Methods | 4-43 |
| Ship Method | 4-52 |
| Defining Freight Costs..... | 4-54 |
| Defining Shipment Transit Times..... | 4-55 |
| Defining Document Sequences | 4-59 |
| Defining Document Categories | 4-61 |
| Assigning Document Sequences to Document Categories | 4-65 |
| Creating a Bill of Lading | 4-65 |
| Creating a Packing Slip | 4-68 |
| Defining Shipping Document Sets..... | 4-70 |
| Choosing Printers for Shipping Documents and Labels | 4-73 |
| Defining Pick Slip Grouping Rules..... | 4-78 |
| Defining Release Rules | 4-79 |
| Defining Release Sequence Rules..... | 4-84 |
| Defining Transportation Calendars | 4-87 |

| | |
|---|--------------|
| Defining Shipping Exceptions | 4-90 |
| Defining Containers and Vehicles..... | 4-93 |
| Defining Container-Item Relationships..... | 4-94 |
| Finding Container-Item Relationships..... | 4-96 |
| International Trade Management Adapter | 4-97 |
| Regions and Zones..... | 4-110 |
| Oracle Shipping Debugger | 4-118 |
| Introduction..... | 4-118 |
| Shipping Debugger Profile Options..... | 4-119 |

5 Orders

| | |
|--|-------------|
| Overview | 5-2 |
| Required Setup..... | 5-2 |
| Process Steps | 5-5 |
| Using Workflow in Order Management..... | 5-11 |
| Workflow | 5-12 |
| Returns | 5-14 |
| Overview..... | 5-14 |
| Setup | 5-14 |
| Process Flow | 5-18 |
| Workflow | 5-25 |
| Internal Orders | 5-29 |
| Overview..... | 5-29 |
| Setup | 5-30 |
| Process Steps..... | 5-31 |
| Workflow | 5-31 |
| Drop Shipments | 5-31 |
| Overview..... | 5-31 |
| Required Setup..... | 5-32 |
| Process Steps..... | 5-32 |
| Workflow | 5-33 |
| Quick Sales Orders | 5-34 |
| Overview..... | 5-34 |
| Setup | 5-35 |
| Setup | 5-36 |

| | |
|---|-------------|
| Blanket Sales Agreements..... | 5-36 |
| Overview..... | 5-36 |
| Profiles..... | 5-37 |
| Setup..... | 5-38 |
| TeleSales eBusiness Center to Sales Order Window | 5-38 |
| Overview..... | 5-38 |
| Setup..... | 5-38 |
| Related Items and Manual Substitutions | 5-39 |
| Overview..... | 5-39 |
| Setup..... | 5-40 |
| Maintain Line Number on Copied Orders | 5-41 |
| Overview..... | 5-41 |
| Setup..... | 5-41 |

6 Order Import

| | |
|--|-------------|
| Overview | 6-2 |
| Feature Functions and Basic Instruction - What is it? How is it used? | 6-2 |
| Tools/Techniques of Feature - API's, Workflow..... | 6-6 |
| Setup Steps to Implement Order Import | 6-6 |
| Loading the Import tables..... | 6-7 |
| Flags..... | 6-7 |
| Actions Table | 6-9 |
| IDs vs. Codes | 6-10 |
| Matching Changes to Orders..... | 6-10 |
| High Volume Order Import | 6-11 |
| Overview..... | 6-11 |
| Supported Operations..... | 6-11 |
| Unsupported Features | 6-12 |
| Setup..... | 6-23 |

7 Order Information Portal

| | |
|---|------------|
| Overview | 7-2 |
| Implementation Requirements..... | 7-2 |
| Profiles..... | 7-2 |
| Setup..... | 7-3 |

| | |
|--|------|
| Oracle Applications Framework (OAF) Overview | 7-4 |
| Personalizing OA Framework Applications | 7-4 |
| Menus and Responsibilities..... | 7-4 |
| FND Messages and Lookups | 7-4 |
| UI Definition Overlays and Saved Views Via the OA Personalization Framework..... | 7-5 |
| OA Personalization Framework | 7-5 |
| Personalization Levels | 7-6 |
| Admin-Seeded User-Level | 7-6 |
| User Level | 7-6 |
| Profile Options Required By the OA Personalization Framework | 7-7 |
| Admin-Level Personalizations..... | 7-7 |
| Create/Update View Page | 7-9 |
| General Properties | 7-9 |
| Column or Attribute Properties | 7-10 |
| Search Query to Filter Data in Table | 7-11 |
| Saving Your Personalized View | 7-12 |
| Advanced Settings | 7-12 |
| Adding New Items With OA Personalization Framework | 7-14 |
| Add a New Region Item | 7-14 |
| Creating User-Level Personalizations | 7-16 |
| Personalizing a Table Region at the User Level | 7-16 |

8 Transaction Types

| | |
|----------------------------|-----|
| Overview | 8-2 |
| Introduction | 8-2 |
| Functionality | 8-2 |
| Terminology | 8-3 |
| Reports..... | 8-7 |
| Example | 8-8 |

9 Order Management Defaulting Rules

| | |
|---------------------------|-----|
| Overview | 9-2 |
| Introduction | 9-2 |
| Key Enhancements | 9-2 |
| Terminology | 9-2 |

| | |
|---|-------------|
| Attributes and Entities in Order Management | 9-3 |
| Conditions | 9-3 |
| Sequence of Defaulting | 9-4 |
| Sources of Values..... | 9-4 |
| Dependencies | 9-6 |
| Examples..... | 9-6 |
| Controlling Changes | 9-9 |
| Reports | 9-9 |
| Implementation Considerations | 9-10 |
| Creating Conditions | 9-10 |
| Defaulting vs. Cascading..... | 9-11 |
| Migration/Upgrade from SVRS | 9-11 |
| Example..... | 9-12 |
| Order Management Defaulting Rules..... | 9-14 |

10 Processing Constraints

| | |
|--|--------------|
| Overview | 10-2 |
| Introduction | 10-2 |
| Background | 10-3 |
| Terminology | 10-3 |
| Defining Processing Constraints | 10-4 |
| Defining Validation Templates..... | 10-10 |
| Defining Record Sets..... | 10-13 |
| Concurrent Program | 10-15 |
| Report | 10-15 |
| Migration/Upgrade from Security Rules | 10-16 |
| Examples..... | 10-16 |

11 Credit Cards and iPayment

| | |
|--------------------------------|-------------|
| Overview | 11-2 |
| Introduction | 11-2 |
| Background | 11-2 |
| Features Provided | 11-3 |
| Authorization Flow | 11-3 |
| Prepaid Flow | 11-3 |

| | |
|---|-------|
| Types of Authorizations | 11-4 |
| Set Up | 11-8 |
| Profile Options | 11-8 |
| Bank Accounts..... | 11-10 |
| Payment Terms | 11-10 |
| Lookups..... | 11-10 |
| iPayment Setup | 11-10 |
| Reports..... | 11-11 |
| Implementation and Considerations | 11-11 |
| Examples | 11-13 |

12 Hold Management

| | |
|---|------|
| Overview | 12-2 |
| Setup | 12-2 |
| Process Flow | 12-4 |
| Workflow | 12-7 |
| Honor Holds in Repricing at Shipment | 12-9 |
| Overview..... | 12-9 |
| Setup | 12-9 |

13 Configure-to-Order

| | |
|----------------------------------|-------|
| Overview | 13-2 |
| Setup | 13-4 |
| Profiles..... | 13-5 |
| Process Steps | 13-6 |
| Workflow | 13-12 |
| Configured Item Workflow | 13-15 |
| Related Processes | 13-18 |
| Back-to-Back Orders | 13-20 |
| Overview..... | 13-20 |
| Features | 13-21 |
| Setup | 13-22 |
| Sales Order Process | 13-23 |
| Purchasing Process | 13-23 |
| Sales Order Line Status | 13-24 |

| | |
|--------------------------------|-------|
| Reservations | 13-24 |
| Changes or Cancellations | 13-24 |
| Miscellaneous..... | 13-25 |

14 Basic Pricing Setup

| | |
|--|-------|
| Overview of Basic Pricing | 14-2 |
| Pricing Terminology | 14-3 |
| Basic Pricing Features | 14-5 |
| Process Flow for Implementation | 14-9 |
| Implementing from Fresh Install..... | 14-9 |
| Upgrading from Release 10.7 or Release 11 of Oracle Applications..... | 14-11 |
| Overview of Defaulting Rules in Basic Pricing | 14-13 |
| Overview of Pricing Security | 14-14 |
| Pricing Security Terminology | 14-16 |
| Getting Started | 14-18 |
| Setup Steps for Implementing Pricing Security | 14-18 |
| Changes to Pricing windows after Upgrading and Turning Security On | 14-20 |
| Assigning Ownership of Pricing Entities to Operating Units (Entity Usage page) | 14-23 |
| Creating Pricing Entity Usage | 14-25 |
| Using Bulk Update Entity Usage | 14-28 |
| Creating Privileges | 14-30 |
| Implementation Suggestions for Privileges..... | 14-31 |
| Using Bulk Create Privileges | 14-36 |
| Setting up Default Security Profile Options for New Pricing Entities | 14-40 |
| Security Profile Option Settings Compared | 14-42 |
| Setting the QP: Security Control profile option to ON | 14-48 |
| Overview of Price Lists | 14-49 |
| Price List Features..... | 14-50 |
| Using Precedence to Resolve Multiple Price Lists..... | 14-52 |
| Deleting Price Lists..... | 14-54 |
| Overview of GSA Pricing | 14-55 |
| Setting up GSA Pricing..... | 14-57 |
| Defining GSA Pricing..... | 14-58 |
| Overview of Formulas | 14-59 |
| Seeded Freight and Special Charge Formulas | 14-60 |

| | |
|--|--------------|
| Overview of Modifiers | 14-61 |
| Implementing Modifiers..... | 14-61 |
| Types of Adjustments | 14-62 |
| Modifiers: How Do I Define My Product Hierarchy? | 14-63 |
| Modifiers: How are they qualified? | 14-63 |
| Modifier Applications Methods | 14-64 |
| Modifier: Additional Controls and Special Considerations..... | 14-65 |
| Manual Adjustments using Modifiers..... | 14-66 |
| Overview of Agreements | 14-68 |
| Types of Agreements..... | 14-68 |
| Revising Agreements | 14-69 |
| Defining Special Terms for an Agreement..... | 14-70 |
| Setting up Agreements..... | 14-71 |
| Overview of Setting up Contexts and Attributes in Attribute Management..... | 14-72 |
| Creating Context and Attributes..... | 14-74 |
| Creating Contexts | 14-74 |
| Deleting Contexts..... | 14-76 |
| Creating Attributes..... | 14-77 |
| Linking Attributes to a Pricing Transaction Entity..... | 14-80 |
| Viewing Information about a Pricing Transaction Entity..... | 14-86 |
| Summary of Attribute Levels for Pricing Setup windows | 14-90 |

15 Pricing Profile Options

| | |
|------------------------------------|-------------|
| Overview | 15-2 |
| Profile Options | 15-2 |
| Setup Profile Options Summary..... | 15-2 |

16 Using Defaulting Rules in Basic Pricing

| | |
|-----------------------|-------------|
| Overview | 16-2 |
| Pricing Date | 16-2 |
| Agreement | 16-2 |
| Price List..... | 16-2 |
| Currency Code | 16-2 |

17 Freight and Special Charges

| | |
|--|-------|
| Overview | 17-2 |
| Process Flows..... | 17-3 |
| Charges Setup..... | 17-5 |
| Other Business Scenarios..... | 17-22 |
| Troubleshooting..... | 17-31 |
| Seeded Freight and Special Charge Types..... | 17-34 |

18 Scheduling

| | |
|---|-------|
| Overview | 18-3 |
| Introduction | 18-3 |
| Key Features..... | 18-3 |
| Terminology | 18-4 |
| Calculating Available to Promise (ATP)..... | 18-6 |
| Scheduling | 18-7 |
| Scheduling by Ship or Arrival Date..... | 18-8 |
| Alternative Ways to Schedule..... | 18-8 |
| Override ATP | 18-15 |
| Reserving..... | 18-15 |
| Manual Reservations..... | 18-16 |
| Reservations Time Fence | 18-16 |
| Reservation Details Window | 18-16 |
| Reserve Orders Concurrent Program..... | 18-16 |
| Unreserving and Unscheduling..... | 18-17 |
| Setup..... | 18-18 |
| Profiles..... | 18-18 |
| Folders..... | 18-19 |
| Scheduling Levels on Transaction Types..... | 18-19 |
| Customer Window | 18-20 |
| ATP and Sourcing Rules..... | 18-21 |
| Choosing Not to Use ATP | 18-22 |
| Inter Location Transit Times..... | 18-23 |
| Late Demand Penalty..... | 18-23 |
| Implementation Considerations | 18-23 |
| Time Stamp..... | 18-23 |

| | |
|-----------------------------------|-------|
| ATP with or without ASCP | 18-23 |
| Past Dates | 18-24 |
| Reservations Details Window | 18-24 |
| Reserve Orders | 18-24 |
| Override ATP | 18-25 |
| Migration/Upgrade | 18-25 |
| Examples | 18-25 |

19 Fulfillment

| | |
|--|------|
| Overview | 19-2 |
| Introduction | 19-2 |
| Terminology | 19-2 |
| How it Works | 19-2 |
| Setup | 19-3 |
| Implementation Considerations | 19-4 |
| Example | 19-4 |

20 Change Orders in Oracle Shipping Execution

| | |
|--|-------|
| Order Line Change in Shipping Execution | 20-2 |
| Change Management Core Functionalities | 20-5 |
| Setups | 20-7 |
| OM Constraints | 20-7 |
| Exception Messages | 20-9 |
| Frequently Asked Questions | 20-11 |
| Order is Booked/Scheduled | 20-14 |
| Delivery Lines are Pick Released | 20-16 |
| Delivery Lines Released to Warehouse | 20-17 |
| Staged Delivery Lines | 20-19 |
| Ship Confirmed, In Transit, or Closed | 20-20 |
| Summary | 20-21 |

21 Backorders in Shipping Execution

| | |
|-------------------------------|------|
| Introduction | 21-2 |
| Release Statuses | 21-2 |

| | |
|--|-------|
| Backorder at Pick Release | 21-5 |
| Backorder at Ship Confirmation..... | 21-5 |
| Scenario 1: Shortage at Detailing..... | 21-9 |
| Scenario 2: Shortage Reported at Pick Confirm..... | 21-11 |
| Backorders and Cycle Counting | 21-13 |
| Backorders and Over picking..... | 21-16 |
| 22 Line Status in the Oracle Order Management Suite | |
| Introduction | 22-2 |
| Standard Line Status Flow (also includes PTO) | 22-2 |
| ATO Line Status Flow | 22-11 |
| Bill Only Line Status Flow..... | 22-13 |
| Returns Line Status Flow | 22-13 |
| Drop Ship Line Status Flow | 22-13 |
| Order and Delivery Line Statuses | 22-13 |
| 23 Using LPNs/Containers in Shipping Execution | |
| Overview | 23-2 |
| Setup Steps..... | 23-2 |
| Setup Container-Load Relationships for Containers and Items..... | 23-3 |
| Define Shipping Parameters | 23-5 |
| Define Default Containers for Customer Items | 23-8 |
| Creating LPNs/Containers | 23-9 |
| Packing Items into LPNs/Containers..... | 23-11 |
| Manual Packing | 23-11 |
| Auto-Packing Standard Items..... | 23-12 |
| Auto-Packing Customer Items | 23-13 |
| Packing Workbench | 23-14 |
| Additional Functionality | 23-16 |
| Assigning Serial Numbers to LPNs/Containers | 23-16 |
| Generating a Loading Sequence for Deliveries/Containers | 23-17 |
| 24 Invoicing | |
| Overview | 24-2 |

| | |
|---|-------------|
| Feature Functions and Basic Instruction - What is it? How is it used?..... | 24-3 |
| Invoicing and Fulfillment | 24-3 |
| Discounts..... | 24-3 |
| Freight and Other Charges..... | 24-3 |
| Over and Under Shipments | 24-4 |
| Credit Cards | 24-4 |
| Notes/Attachments..... | 24-4 |
| Viewing the Invoice..... | 24-4 |
| Tools/Techniques of Feature - API's, Workflow | 24-5 |
| To Implement Invoicing | 24-6 |
| Troubleshooting | 24-8 |

25 Data Model Overview

| | |
|---|-------------|
| Overview | 25-2 |
| Key Order Management Modules | 25-6 |

26 Order Management Integration

| | |
|--|-------------|
| Overview | 26-2 |
| Applications Core Technology Family | 26-2 |
| AK - Common Modules..... | 26-2 |
| AOL..... | 26-2 |
| eCommerce Gateway | 26-3 |
| iSetup | 26-3 |
| Trading Community Architecture | 26-3 |
| Workflow | 26-3 |
| XML Gateway..... | 26-4 |
| Order Fulfillment Family | 26-5 |
| Advanced Pricing | 26-5 |
| Configurator | 26-5 |
| iStore | 26-5 |
| Release Management..... | 26-5 |
| Shipping Execution..... | 26-6 |
| Business Intelligence Products..... | 26-6 |
| Business Intelligence | 26-6 |
| Daily Business Intelligence..... | 26-7 |

| | |
|---|-------|
| Financials Product Family | 26-7 |
| iPayment | 26-7 |
| iReceivables | 26-7 |
| Payables | 26-7 |
| Receivables | 26-7 |
| Human Resources Product Family | 26-8 |
| Training Administration..... | 26-8 |
| Logistics Product Family | 26-8 |
| Inventory Management | 26-8 |
| Transportation..... | 26-9 |
| Product Lifecycle Management Family | 26-9 |
| Bill of Material..... | 26-9 |
| PLM | 26-9 |
| Procurement Family | 26-10 |
| Purchasing | 26-10 |
| Supply Chain Planning Family | 26-11 |
| Advanced Planning System/Global Order Promising/ Advanced Supply Chain Planning.... | 26-11 |
| Manufacturing Product Family | 26-11 |
| Cost Management..... | 26-11 |
| CTO..... | 26-12 |
| Process Manufacturing | 26-12 |
| Project Manufacturing | 26-12 |
| Quality..... | 26-13 |
| Work in Process | 26-13 |
| Marketing and Sales Family | 26-13 |
| Incentive Compensation..... | 26-13 |
| Order Capture | 26-13 |
| Partners Online | 26-13 |
| Telesales | 26-14 |
| Trade Management | 26-14 |
| Service Family | 26-14 |
| Depot Repair | 26-14 |
| Field Service | 26-14 |
| Install Base | 26-15 |
| Service Contracts | 26-15 |

| | |
|-----------------------------------|-------|
| Service Fulfillment Manager | 26-16 |
| Spares Management | 26-16 |

27 Upgrading to Order Management 11i

| | |
|--|-------|
| Overview | 27-2 |
| Strategy | 27-2 |
| Bifurcation of Order Management Upgrade | 27-3 |
| Intended Users | 27-3 |
| Steps to Upgrade to Order Management 11i | 27-4 |
| An Insight to Order Management Upgrade | 27-8 |
| Upgrade Temporary Objects..... | 27-8 |
| Fine Tuning the Order Management Upgrade | 27-14 |
| Object Sizing files..... | 27-15 |
| Object Sizing Estimation..... | 27-15 |
| Migrating Cycles to Workflow | 27-16 |
| Functional Differences Between Oracle Workflow and Order Cycles..... | 27-16 |
| Upgrading Order Types | 27-18 |
| Upgrading Order Number Sources | 27-19 |
| Upgrade Strategy for Cycles and Cycle History | 27-21 |
| Upgrading User Defined Cycle Data | 27-21 |
| Upgrading Order Type - Cycle Assignments..... | 27-42 |
| Upgrading Cycle History | 27-44 |
| Post-Upgrade steps that affect the Cycle History Upgrade | 27-51 |
| Cycles Upgrade and other Order Entry features | 27-55 |
| Migration/Upgrade from Order Types | 27-56 |
| Order Management Profile Option Migration | 27-57 |
| Profile Options | 27-57 |
| System Parameters Setup | 27-60 |
| Order Management Flexfield Migration | 27-60 |
| Descriptive Flexfields..... | 27-60 |

28 Upgrading to Oracle Shipping Execution 11i

| | |
|--|------|
| Overview | 28-2 |
| Functional Differences | 28-2 |
| Migration: Common Technical Considerations | 28-4 |

| | |
|--|------|
| Technical Migration R10.7 to R11i..... | 28-5 |
| Technical Migration R11 to R11i | 28-6 |
| Data Not Upgraded..... | 28-7 |
| A Lookups | |
| Advanced Pricing Lookups..... | A-2 |
| Shipping Execution Lookups | A-14 |
| B Order Management Processing Constraints | |
| Processing Constraints..... | B-2 |
| Constraints for Order Line | B-3 |
| Constraints for Line Price Adjustment..... | B-14 |
| Constraints for Line Sales Credit..... | B-14 |
| Constraints for Order Header | B-15 |
| Constraints for Order Price Adjustment | B-18 |
| Constraints for Order Sales Credit..... | B-18 |
| C Pricing Attribute Seed Data | |
| Pricing Attribute Seed Data..... | C-2 |
| Demand Planning PTE Attributes..... | C-3 |
| Intercompany Transaction PTE Attributes..... | C-4 |
| Logistics PTE Attributes | C-6 |
| Order Fulfillment PTE Attributes..... | C-8 |
| D Qualifier Seed Data | |
| Qualifier Seed Data | D-2 |
| E Multimodal and Consolidated Shipments | |
| Introduction | E-2 |
| Definitions | E-2 |
| Business Scenario 1: Multimodal Shipment | E-3 |
| Overview..... | E-3 |
| Required Setup..... | E-3 |

Business Scenario 2: Consolidated Shipment..... E-10

 Creating Trips..... E-10

 Creating Locations and Stops E-12

 Executing the Shipments E-17

Index

Send Us Your Comments

Oracle Order Management Implementation Manual, Volumes 1 and 2, Release 11i

Part No. A95861-02

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

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

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

Electronic Mail: mfgdoccomments@oracle.com

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

Preface

Audience for This Guide

Welcome to Release 11i of the Oracle Order Management Implementation Manual, Volumes 1 and 2.

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

- The principles and customary practices of your business area.
- Oracle Order Management, Oracle Pricing (Basic), Oracle Shipping Execution

If you have never used Oracle Order Management, Oracle Pricing, or Oracle Shipping Execution we suggest you attend one or more of the Oracle Order Management training classes available through Oracle University.

<http://ou.us.oracle.com/>

- The Oracle Applications graphical user interface.
To learn more about the Oracle Applications graphical user interface, read the *Oracle Applications User Guide*.

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

How To Use This Guide

This guide contains the necessary information you need to comprehend and use Oracle Order Management. This preface explains how this implementation guide is organized and introduces other sources of information that can assist you in understand Oracle Applications.

This guide contains the following chapters:

- Chapter 1 provides an introduction to the Oracle Order Management Suite Implementation Manual
- Chapter 2 details setup steps for Oracle Order Management
- Chapter 3 lists setup requirements for Oracle Configurator
- Chapter 4 details setup steps for Oracle Shipping Execution
- Chapter 5 describes implementation for functionality of Orders, Workflow, Internal Orders, Blanket Sales Agreements, Drop Shipments, Related Items and Manual Substitution, Returns, and Quick Sales Orders.
- Chapter 6 details Order Import set up.
- Chapter 7 describes the implementation and functionality of the Order Information Portal.
- Chapter 8 provides information on Transaction Types.
- Chapter 9 covers Order Management Defaulting Rules.
- Chapter 10 describes the use of Processing Constraints in Oracle Order Management
- Chapter 11 explains the use of Credit Cards and iPayment in Oracle Order Management.
- Chapter 12 covers Hold Management.
- Chapter 13 explains the uses of Configure-to-Order with Oracle Order Management.
- Chapter 14 details setup steps for Basic Pricing.
- Chapter 15 lists Pricing profiles.
- Chapter 16 describes the use of defaulting rules in Basic Pricing.
- Chapter 17 provides information on Freight and Special Charges.
- Chapter 18 describes Scheduling.
- Chapter 19 describes Fulfillment.
- Chapter 20 details Change Orders in Shipping Execution
- Chapter 21 covers the use of backorders in Shipping Execution.
- Chapter 22 explains Line Status in the Oracle Order Management Suite
- Chapter 23 details using LPNs/Containers in Shipping Execution.

- Chapter 24 details invoicing in Oracle Order Management
- Chapter 25 gives an overview of the Oracle Order Management data model.
- Chapter 26 lists the applications that may be involved in integration with Oracle Order Management.
- Chapter 27 provides information on upgrading to Oracle Order Management 11i
- Chapter 28 provides information on upgrading to Oracle Shipping Execution 11i

Documentation Accessibility

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

Accessibility of Code Examples in Documentation

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

Accessibility of Links to External Web Sites in Documentation

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

Other Information Sources

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

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

Online Documentation

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

- Online Help - The new features section in the HTML help describes new features in 11i. This information is updated for each new release of the Oracle Order Management Suite Implementation Manual. The new features section also includes information about any features that were not yet available when this guide was printed. For example, if your administrator has installed software from a mini-packs an upgrade, this document describes the new features. Online help patches are available on MetaLink.
- 11i Features Matrix - This document lists new features available by patch and identifies any associated new documentation. The new features matrix document is available on MetaLink.
- Readme File - Refer to the readme file for patches that you have installed to learn about new documentation or documentation patches that you can download.

Related User's Guides

The Oracle Order Management Suite Implementation Manual shares business and setup information with other Oracle Applications products. Therefore, you may want to refer to other user's guides when you set up and use the Oracle Order Management Suite.

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

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

General

Oracle Applications Demonstration User's Guide

This guide documents the functional storyline and product flows for Vision Enterprises, 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.

Oracle Applications Developer's Guide

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

Oracle Applications Implementation Wizard User 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 User Guide

This guide explains how to navigate the system, enter data, and query information, and introduces other basic features of the GUI available with this release of Oracle Order Management (and any other Oracle Applications product). This guide also includes information on setting user profiles, as well as running and reviewing reports and concurrent processes.

You can also access this user guide online by choosing *Getting Started and Using Oracle Applications* from the Oracle Applications help system.

Oracle Applications User Interface Standards

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

Oracle iSetup User Guide

The Oracle iSetup User Guide gives you an overview of the different components of Oracle iSetup and how they work. Oracle iSetup helps you perform an Oracle E-business Suite implementation, migrate setup data across different Oracle E-Business Suite instances or generate reports on setup data.

Upgrading Oracle Applications

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

Using the AD Utilities

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

Applications Technology

Oracle Alert User Guide

Use this guide to define periodic and event alerts that monitor the status of your Oracle Applications data.

Oracle Applications Flexfields Guide

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

Oracle e-Commerce Gateway User's Guide

This guide describes how Oracle e-Commerce Gateway provides a means to conduct business with trading partners via Electronic Data Interchange (EDI). Data files are exchanged in a standard format to minimize manual effort, speed data processing and ensure accuracy.

Oracle Workflow User's Guide

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

Order Fulfillment

Oracle Advanced Pricing User's Guide

This guide describes how to setup modifiers, price lists, formulas, pricing agreements, pricing rules, and pricing of special orders in Oracle Advanced Pricing.

Oracle Configurator Developer User's Guide

This guide describes how to use the development tool in the Oracle Configurator family of products.

Oracle iStore User Guide

This guide describes use of Oracle iStore, an electronic commerce application that businesses use to sell products directly to customers over the World Wide Web. Businesses can customize Oracle iStore to set up an online store and integrate the front end order capturing system with the order fulfillment system.

Oracle Order Management User's Guide

This guide describes how to enter sales orders and returns, copy existing sales orders, schedule orders, release orders, create price lists and discounts for orders, and create reports.

Oracle Release Management User's Guide

This manual describes how to manage high volume electronic demand by continually incorporating your customers demand into your order and planning processes. By explaining how to validate, archive, manage and reconcile incoming planning, shipping and production sequence schedules with updates to sales orders and forecasts, it enables you to electronically collaborate with your customers to more accurately manage demand. It also describes how to plan, create and manage trading partner layers for trading partner specific customizations

Oracle Shipping Execution User's Guide

This guide describes how to set up Oracle Shipping Execution to process and plan your trips, stops and deliveries, ship confirmation, query shipments, determine freight cost and charges to meet your business needs.

Financials

Oracle iPayment Concepts and Procedures Guide

This guide details Oracle iPayment, which provides an integrated electronic payment solution for both EC applications and client-server applications. It provides user-friendly access, and the applications have the control of payment processing.

Oracle Payables User's Guide

This guide describes how accounts payable transactions are created and entered in Oracle Payables. This guide also contains detailed setup information for Oracle Payables.

Oracle Receivables User Guide

Use this manual to learn how to implement flexible address formats for different countries. You can use flexible address formats in the suppliers, banks, invoices, and payments windows.

Oracle Receivables Tax Manual

This manual provides everything you need to know about calculating tax within Oracle Receivables, Oracle Order Management, Oracle sales, and Oracle Web Customers. It includes information about implementation procedures, setup forms and windows, the Oracle Receivables Tax calculation process, tax reports and listings, and open interfaces.

Human Resources

Oracle HRMS Documentation Set

- *Using Oracle HRMS - The Fundamentals* explains how to set up organizations and site locations.
- *Managing People Using Oracle HRMS* explains how to enter and track employee data.

- *Running Your Payroll Using Oracle HRMS* explains how to set up payroll, do withholding, run statutory reports, and pay employees.
- *Managing Compensation and Benefits Using Oracle HRMS* explains how to set up Total Compensation, including 401(k), health, and insurance plans.
- *Customizing, Reporting, and System Administration in Oracle HRMS* explains how to customize the system and design reports.

Using Oracle Training Administration

Oracle Training Administration facilitates management of comprehensive training and certification business. Employee competencies are recorded and available for career planning as well as candidate placements, performance appraisals, and other activities. Tightly integrated with the career management functions within the Human Resources application, OTA is also integrated with Oracle Financials applications to administer the financial aspects of the training business.

Logistics

Oracle Inventory User's Guide

This guide describes how to define items and item information, perform receiving and inventory transactions, maintain cost control, plan items, perform cycle counting and physical inventories, and set up Oracle Inventory.

Oracle Transportation User's Guide

Oracle Transportation enables you to communicate, collaborate, and manage your transportation processes with complete visibility to carrier rates, schedules, in transit events, and delivery information.

Product Lifecycle Management

Oracle Bills of Material User's Guide

This guide describes how to create various bills of materials to maximize efficiency, improve quality and lower cost for the most sophisticated manufacturing environments. By detailing integrated product structures and processes, flexible product and process definition, and configuration management, this guide enables you to manage product details within and across multiple manufacturing sites.

Procurement

Oracle Purchasing User's Guide

This guide describes how to create and approve purchasing documents, including requisitions, different types of purchase orders, quotations, RFQs, and receipts. This guide also describes how to manage your supply base through agreements, sourcing rules and approved supplier lists. In addition, this guide explains how you can automatically create purchasing documents based on business rules through integration with Oracle Workflow technology, which automates many of the key procurement processes.

Supply Chain Planning

Oracle Advanced Planning Implementation and User's Guide

This guide describes how to anticipate and manage both supply and demand for your items. Using a variety of tools and techniques, you can create forecasts, load these forecasts into master production schedules, and plan your end-items and their component requirements. You can also execute the plan, releasing and rescheduling planning suggestions for discrete jobs and repetitive schedules.

Oracle Global Order Promising Implementation and User's Guide

This guide provides detailed implementation information for Global Order Promising, which provides a comprehensive order promising solution that determines, based on the current and projected demands and supplies across a supply chain and on an extended supply chain, when a customer order can be fulfilled. This includes distributed global order promising and multi-level supply chain Available-To-Promise (ATP), Capable-To-Promise (CTP), and Capable-To-Deliver (CTD).

Manufacturing

Oracle Cost Management User's Guide

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

Oracle Process Manufacturing User's Guide

This guide provides detailed implementation instructions for Oracle Process Manufacturing.

Oracle Project Manufacturing User's Guide

This guide describes the unique set of features Oracle Project Manufacturing provides for a project-based manufacturing environment. Oracle Project Manufacturing can be tightly integrated with Oracle Projects. However, in addition to Oracle Projects functionality, Oracle Project Manufacturing provides a comprehensive set of new features to support project sales management, project manufacturing costing, project manufacturing planning, project manufacturing execution and project quality management.

Oracle Quality User's Guide

This guide describes how Oracle Quality can be used to meet your quality data collection and analysis needs. This guide also explains how Oracle Quality interfaces with other Oracle Manufacturing applications to provide a closed loop quality control system.

Oracle Work in Process User's Guide

This guide describes how Oracle Work in Process provides a complete production management system. Specifically this guide describes how discrete, repetitive, assemble-to-order, project, flow, and mixed manufacturing environments are supported.

Marketing and Sales

Oracle Incentive Compensation User Guide

This guide provides information on Oracle Incentive Compensation. Each sales organization has different ways of paying compensation; thus each organization needs different types of data to calculate a compensation payment. This guide also explains how to setup and calculate compensation for a salesperson, adjust for sales credits, and view a person's performance against their quota. In addition, this guide also explains how to run a variety of reports for individuals or groups.

Oracle TeleSales User's Guide

This Guide details use of Oracle TeleSales, which provides a versatile set of tools to manage the sales cycle, from prospecting to booking orders.

Service

Oracle Install Base User Guide

This guide provides information on Oracle Install Base, which is a centralized repository of information for an item instance and its tracking details including location, status, ownership, party, account and contact relationships, configuration data, and the change history of customer products or corporate assets. The application includes drill-down capability to obtain details of inventory, work in process, and order management transactions affecting an item's tracking attributes.

Oracle Service Concepts and Procedures

This guide provides information on the Oracle Service charges and counters applications.

Oracle Teleservice User Guide

This guide provides information on Oracle Teleservice.

ETRM

Oracle eTechnical Reference Manuals

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

- Open Interfaces Manuals
- Order Management API and Open Interface Manual
- Manufacturing API and Open Interfaces Manual

Installation and System Administration

Oracle Applications Concepts

This guide provides an introduction to the concepts, features, technology stack, architecture, and terminology for Oracle Applications Release 11i. It provides a useful first book to read before an installation of Oracle Applications. This guide

also introduces the concepts behind Applications-wide features such as Business Intelligence (BIS), languages and character sets, and Self-Service Web Applications.

Installing Oracle Applications

This guide provides instructions for managing the installation of Oracle Applications products. In Release 11*i*, much of the installation process is handled using Oracle Rapid Install, which minimizes the time to install Oracle Applications, the Oracle8 technology stack, and the Oracle8*i* Server technology stack by automating many of the required steps. This guide contains instructions for using Oracle Rapid Install and lists the tasks you need to perform to finish your installation. You should use this guide in conjunction with individual product user's guides and implementation guides.

Upgrading Oracle Applications

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

Maintaining Oracle Applications

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

Oracle Applications System Administrator's Guide

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

Oracle Applications System Administrator's Guide

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

Other Implementation Documentation

Multiple Reporting Currencies in Oracle Applications

If you use the Multiple Reporting Currencies feature to record transactions in more than one currency, use this manual before implementing the Oracle Order Management Suite. This manual details additional steps and setup considerations for implementing the Oracle Order Management Suite with this feature.

Multiple Organizations in Oracle Applications

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

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 Applications Product Update Notes

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

Oracle eTechnical Reference Manuals

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

Oracle Order Management Suite APIs and Open Interfaces Manual

This manual contains up-to-date information about integrating with other Oracle Manufacturing applications and with your other systems. This documentation includes APIs and open interfaces found in Oracle Order Management Suite.

Oracle Applications Message Reference Manual

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

Training and Support

Training

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

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

Support

From on-site support to central support, our team of experienced professionals provides the help and information you need to keep Oracle Order Management working for you. This team includes your Technical Representative, Account Manager, and Oracle's large staff of consultants and support specialists with expertise in your business area, managing an Oracle®i server, and your hardware and software environment.

Do Not Use Database Tools to Modify Oracle Applications Data

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

Oracle provides powerful tools you can use to create, store, change, retrieve, and maintain information in an Oracle database. But if you use Oracle tools such as SQL*Plus to modify Oracle Applications data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data. Because Oracle Applications tables are interrelated, any change you make using Oracle

Applications can update many tables at once. But when you modify Oracle Applications data using anything other than Oracle Applications, you may change a row in one table without making corresponding changes in related tables. If your tables get out of synchronization with each other, you risk retrieving erroneous information and you risk unpredictable results throughout Oracle Applications.

When you use Oracle Applications to modify your data, Oracle Applications automatically checks that your changes are valid. Oracle Applications also keeps track of who changes information. If you enter information into database tables using database tools, you may store invalid information. You also lose the ability to track who has changed your information because SQL*Plus and other database tools do not keep a record of changes.

About Oracle

Oracle Corporation develops and markets an integrated line of software products for database management, applications development, decision support, and office automation, as well as Oracle Applications, an integrated suite of more than 160 software modules for financial management, supply chain management, manufacturing, project systems, human resources and customer relationship management.

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

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

Your Feedback

Thank you for using Oracle Order Management and this implementation manual. Oracle values your comments and feedback. At the end of this guide is a Reader's Comment Form you can use to explain what you like or dislike about Oracle Order Management or this implementation manual. Mail your comments to the following address or call us directly at (650) 506-7000.

Oracle Applications Documentation Manager
Oracle Corporation

500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

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

Introduction to Order Management Suite Implementation

Topics covered in this chapter include the following:

- [Overview of the Oracle Order Management Suite](#) on page 1-2
- [Oracle Order Management Suite Implementation Manual](#) on page 1-4

Overview of the Oracle Order Management Suite

The Oracle Order Management Suite enables you to capture orders from multiple channels, price orders, check product availability, schedule fulfillment, plan shipments, ship deliveries, and track shipments.

The Oracle Order Management Suite consists of:

- Oracle Order Management
- Oracle Shipping Execution
- Basic Pricing

Additional products are available which are also integrated with Oracle Order Management, and these include:

Applications Core Technology Family

- AK - Common Modules
- AOL
- eCommerce Gateway
- iSetup
- Trading Community Architecture
- Workflow
- XML Gateway

Order Fulfillment Family

- Advanced Pricing
- Configurator
- iStore
- Release Management
- Shipping Execution

Business Intelligence Products

- Business Intelligence
- Daily Business Intelligence

Financials Product Family

- iPayment
- iReceivables
- Payables
- Receivables

Human Resources Product Family

Training Administration

Logistics Product Family

- Inventory Management
- Transportation

Product Lifecycle Management Family

- Bill of Material

Procurement Family

Purchasing

Supply Chain Planning Family

- Advanced Supply Chain Planning
- Global Order Promising

Manufacturing Product Family

- Cost Management
- CTO
- Process Manufacturing
- Project Manufacturing
- Quality
- Work in Process

Marketing and Sales Family

- Incentive Compensation
- Order Capture
- Partners Online
- Telesales
- Trade Management

Service Family

- Depot Repair
- Field Service
- Install Base
- Service Contracts
- Service Fulfillment Manager
- Spares Management

See

[Order Management Integration](#)

Oracle Order Management Suite Implementation Manual

This manual is organized as follows:

- Setup:
 - [Oracle Order Management Setup](#)
 - [Oracle Configurator Setup Requirements](#)
 - [Oracle Shipping Execution Setup](#)
 - [Basic Pricing Setup](#)
- Capture Orders:
 - [Sales Orders](#)
 - [Quick Sales Orders](#)
 - [Blanket Sales Agreements](#)

- Internal Orders
- Drop Shipments
- Returns
- Workflow
- Import Orders
 - Order Import
 - High Volume Order Import
- Price Orders
- Schedule Orders
- Fulfill Orders
- Change Orders in Oracle Shipping Execution
- Backorders in Shipping Execution
- Invoice Orders
- Data Model Overview
- Integration Points
- Upgrading to Order Management 11i

See

Oracle Order Management User's Guide

Oracle Shipping Execution User's Guide

Oracle Order Management Setup

Topics covered in this chapter include the following:

- [Overview of Setup](#) on page 2-3
- [Setup Steps](#) on page 2-3
- [Profile Options](#) on page 2-16
- [Define Tax Features](#) on page 2-57
- [Define QuickCodes](#) on page 2-61
- [Defining Freight and Special Charge Types](#) on page 2-62
- [Viewing Notifications](#) on page 2-76
- [Defining Document Sequences for Order Numbering](#) on page 2-76
- [Define Order Management Transaction Types](#) on page 2-79
- [Defining Sales Credit Types](#) on page 2-96
- [Defining Order Import Sources](#) on page 2-97
- [Setup for High Volume Order Processing](#) on page 2-98
- [Define Processing Constraints](#) on page 2-98
- [Defining Validation Templates](#) on page 2-110
- [Defining Record Sets](#) on page 2-112
- [Define Defaulting Rules](#) on page 2-114
- [Define Credit Checking Rules](#) on page 2-131
- [iPayment Processing](#) on page 2-160
- [Defining Automatic Holds](#) on page 2-163

-
- [Overview of Attachments](#) on page 2-167
 - [Defining Documents in Advance](#) on page 2-170
 - [Defining Attachment Addition Rules](#) on page 2-171
 - [Defining Document Categories](#) on page 2-171
 - [Overview of Shipping Tolerances](#) on page 2-175
 - [Defining Shipping Tolerances](#) on page 2-177
 - [Setup for Blanket Sales Agreements](#) on page 2-179
 - [Release Management Integration Setup for Blanket Sales Agreements](#) on page 2-179
 - [Shipping Across Orders Setup](#) on page 2-181
 - [Gross Margin](#) on page 2-182
 - [User Item Description](#) on page 2-183
 - [Setup for Related Items](#) on page 2-183
 - [Trading Community usage within Order Management](#) on page 2-184

Overview of Setup

This chapter explains how to set up and implement Oracle Order Management. The Oracle Order Management Application provides many flexible features enabling you to set up your system to begin processing order information. You must define your business order policies, such as how you classify your orders, as well as various control features prior to processing orders within the application.

In addition to reading this chapter, please refer to the *Using Oracle Workflow in Oracle Order Management, Release 11i* manual for setup and implementation details for Order Management workflows.

Setup Steps

- [Oracle Order Management Recommended Implementation](#) on page 2-3
- [Setup Steps with Documentation References](#) on page 2-4
- [Setup Steps Defined in Detail](#) on page 2-6
- [Profile Options](#) on page 2-16

Oracle Order Management Recommended Implementation

Implementation involves several phases, including setting up other integrated applications, which include Oracle General Ledger, Oracle Receivables, and Oracle Inventory. Some setup steps are optional, depending on whether you have the integrating applications installed and whether you use the associated feature. For example, if your business supports drop shipments, you should also set up Oracle Purchasing. If you sell models and kits, set up Oracle Bills of Material and Oracle Configurator.

If you are using a multiple organization structure, your system administrator must set the parameter *OM: Item Validation Organization*. This enables Order Management to default code and revenue account information accurately.

Oracle Applications Implementation Wizard

If you are implementing more than one Oracle Applications product, you may want to use the Oracle Applications Implementation Wizard to coordinate your setup activities. The Implementation Wizard guides you through the setup steps for the applications you have installed, suggesting a logical sequence that satisfies cross-product implementation dependencies and reduces redundant setup steps. The Wizard also identifies steps that can be completed independently by several

teams working in parallel to help you manage your implementation process most efficiently.

You can use the Implementation Wizard as a resource center to see a graphical overview of setup steps, read outline help for a setup activity, and open the appropriate setup window. You can also document your implementation, for further reference and review, by using the Wizard to record comments for each step.

Set Up Oracle Applications Technology

The setup steps in this chapter tell you how to implement the parts of Oracle Applications specific to Oracle Order Management.

The Implementation Wizard guides you through the entire Oracle Applications setup, including system administration. However, if you do not use the Wizard, you need to complete several other setup steps, including:

- Performing system-wide setup tasks, such as configuring concurrent managers and printers
- Managing data security, which includes setting up responsibilities to enable access to a specific set of business data and transactions, and assigning individual users to one or more of these responsibilities

Also, if your product uses Oracle Workflow, for example, to manage the approval of business documents or derive Accounting flexfield values via the Account Generator, you need to set up Oracle Workflow.

See

[Overview of Workflow](#), *Oracle Workflow User's Guide*

[Oracle System Administration](#), *Oracle Applications System Administrator's Guide*

[Using Workflow in Order Management](#)

Setup Steps with Documentation References

The following table displays a list of all the implementation steps for Oracle Order Management and a reference to documentation that can help to accomplish the steps.

Table 2–1 Setup Steps and Documentation Aid

| Step | Document | Optional or Required |
|---|---------------------------------------|-----------------------------------|
| 1. Define key and descriptive flexfields | current | required under certain conditions |
| 2. Define multiple organizations in Oracle Inventory | Oracle Inventory User's Guide | optional |
| 3. Define inventory organizations (warehouses), parameters, subinventories, and picking rules in Oracle Inventory | Oracle Inventory User's Guide | required |
| 4. Define profile options | current | required |
| 5. Set Order Management parameters | current | required |
| 6. Define invoicing information | Oracle Order Management User's Guide | required under certain conditions |
| 7. Define your sales representatives | Oracle Receivables User's Guide | optional |
| 8. Define tax features | Oracle Receivable's User's Guide | required |
| 9. Define QuickCodes | Defining Order Management QuickCodes | required under certain conditions |
| 10. Define order and line processing flows | Oracle Order Management | required |
| 11. Define document sequences | current | required |
| 12. Define sources for importing orders | current | required under certain conditions |
| 13. Define the units of measure | Oracle Inventory User's Guide | required |
| 14. Define item information | Oracle Inventory User's Guide | required |
| 15. Define the items that you sell | Oracle Inventory User's Guide | required |
| 16. Define the configurations that you sell | Oracle Bills of Material User's Guide | required under certain conditions |

| Step | Document | Optional or Required |
|--|--|-----------------------------------|
| 17. Define price lists | Oracle Advanced Pricing Implementation Manual | required |
| 18. Define customer profile classes | Oracle Receivables User's Guide | required under certain conditions |
| 19. Define information on your customers | Oracle Receivables User's Guide | required |
| 20. Define item cross references | this guide and Oracle Inventory User's Guide | required under certain conditions |
| 21. Define your sourcing rules | Oracle Advanced Planning and Scheduling User's Guide | optional |
| 22. Define Order Management transaction types | current | required |
| 23. Set up Cost of Goods Sold Accounting flexfield combination | Order Inventory User's Guide | required under certain conditions |
| 24. Define processing constraints | current | optional |
| 25. Define defaulting rules | current | optional |
| 26. Define credit checking rules | current | required under certain conditions |
| 27. Define automatic holds | current | required under certain conditions |
| 28. Define standard documents | current | optional |
| 29. Define freight charges and freight carriers | current | optional |
| 30. Define shipping parameters | Oracle Shipping Execution User's Guide | required |

Setup Steps Defined in Detail

The following is a list of each setup step defined in detail.

Step 1

Flexfields

Define key and descriptive flexfields to capture additional information about orders and transactions.

This step is required for Key Flexfields, and optional if you plan on using the functionality surrounding Descriptive Flexfields. Several defaulting values are provided.

Step 2

Multiple Organizations

Define multiple organizations in Oracle Inventory. This step is optional.

See

[Overview of Inventory Structure](#), *Oracle Inventory User's Guide*.

Step 3

Inventory Organizations

Define inventory organizations (warehouses), parameters, subinventories, and picking rules in Oracle Inventory.

You must define at least one item validation organization and at least one organization that acts as an inventory source for orders fulfilled internally. If you plan to drop ship some orders, you must also define at least one logical organization for receiving purposes. Your item validation organization can be the same as your inventory source or your logical receiving organization, but you cannot use one organization for all three purposes. See Step 5 for setting your item validation organization.

This step is required.

See

[Overview of Inventory Structure](#), *Oracle Inventory User's Guide*

[Defining Picking Rules](#), *Oracle Inventory User's Guide*

Step 4

Profile Options

Define profile options to specify certain implementation parameters, processing options, and system options.

This step is required.

See

[Profile Options](#)

Step 5

Parameters

Set your Order Management Parameters to validate items, enable customer relationships, and operating unit defaults.

This step is required.

Step 6

Invoicing

Define invoicing information, including payment terms, invoicing and accounting rules, Autoaccounting parameters, territories, and invoice sources.

This step is required if you plan on transferring invoicing information to Oracle Receivables. Several defaulting values are provided.

See

[Payment terms](#), *Oracle Receivables User's Guide*

[Invoice with Rules](#), *Oracle Receivables User's Guide*

[Transaction Types](#), *Oracle Receivables User's Guide*

[AutoAccounting](#), *Oracle Receivables User's Guide*

[Territories](#), *Oracle Receivables User's Guide*

[Invoice Batch Sources](#), *Oracle Receivables User's Guide*

[Invoice Processing](#), *Order Management User's Guide*

Step 7

Salespersons

Define information on your sales representatives.

This step is optional.

See

[Salespersons](#), *Oracle Receivables User's Guide*.

Step 8

Tax

Define tax features, such as codes, rates, exceptions, and exemptions.

This step is required.

See

[Overview of Tax](#), *Oracle Receivables User's Guide*.

Step 9

QuickCodes

Define QuickCodes that provide custom values for many lists of values throughout Order Management.

This step is required if you plan on creating user defined Quickcodes for utilization within Order Management. Defaulting values are provided.

See

[Define QuickCodes](#)

Step 10

Workflow

Define order and line processing flows to meet different order and line type requirements.

This step is required.

See

[Using Workflow in Order Management](#)

Step 11

Document Sequences (Order Numbering)

Define Document Sequences for automatic or manual numbering of orders.

This step is required.

See

[Defining Document Sequences for Order Numbering](#)

Step 12

Order Import Sources

Define sources for importing orders into Order Management.

This step is required if you plan on importing orders or returns into Order Management.

See

[Order Import](#)

Step 13

Units of Measure

Define the units of measure in which you supply items.

This step is required.

See

[Defining Unit of Measure](#), *Oracle Inventory User's Guide*.

Step 14

Item Information

Define item information, including item attribute controls, categories, and statuses.

This step is required.

See

[Defining Item Attribute Controls](#), *Oracle Inventory User's Guide*

[Defining Categories](#), *Oracle Inventory User's Guide*

[Defining Item Status Codes](#), *Oracle Inventory User's Guide*

Step 15**Items**

Define the items that you sell, as well as container items.

This step is required.

See

[Overview of Item Setup and Control](#), *Oracle Inventory User's Guide*.

Step 16**Configurations**

Define the configurations that you sell.

This step is required if you plan on generating orders or returns for configured items. Several defaulting values are provided.

See

[Primary and Alternate Bills of Material](#), *Oracle Bills of Material User's Guide*.

Step 17**Pricing**

Define price lists for each combination of item and unit of measure that you sell. Optionally, you can define pricing rules and parameters to add flexibility.

For more information about pricing setup and implementation, refer to the *Oracle Advanced Pricing Implementation Manual*.

This step is required.

See

[Basic Pricing Setup](#)

Step 18

Customer Classes

Define customer profile classes.

This step is required if you plan on using the functionality surrounding Customer Profiles. Several defaulting values are provided.

See

[Defining Customer Profile Classes](#), *Oracle Receivables User's Guide*.

Step 19

Customers

Define information on your customers.

This step is required.

See

[Entering Customers](#), *Oracle Receivables User's Guide*.

Step 20

Item Cross References

Define item cross references for ordering by customer part number, UPC, or any generic item number.

This step is required if you plan on using the functionality surrounding item cross referencing. Several defaulting values have been provided.

See

[Using Item Cross Referencing in Order Management](#)

[Defining Customer Item Cross References](#), *Oracle Inventory's User's Guide*

[Defining Cross Reference Types](#), *Oracle Inventory's User's Guide*

Step 21

Sourcing

Define your sourcing rules for scheduling supply chain ATP functions.

This step is optional.

See

[Setting up the Supply Chain](#), *Oracle Advanced Supply Chain Planning User's Guide*

Step 22

Order Management Transaction Types (Order and Line Types)

Note: Previous versions of this user's guide referred to Order Management Transaction Types as either *transaction types* or *order or line transaction types*. In an effort to distinguish between the various Oracle Transaction types available, Order Management Transaction types will now be referred to as either OM Order or Line Transaction Types.

Define Order Management transaction types to classify orders and returns. For each order type, you can assign a default price list, defaulting rules, order lines, return lines, line types, workflow assignments, payment terms, and freight terms.

Note: Order Management provides *NO* seeded OM transaction types. For existing Oracle Order Entry customers, Order Management will update existing *Order Types* to OM transaction type during the upgrade process.

This step is required.

See

[Transaction Types](#)

Step 23

Cost of Goods Sold (COGS)

Set up your Cost of Goods Sold Accounting Flexfield combination (COGS Account) in Oracle Inventory.

This step is required if you plan on utilizing the functionality surrounding COGS.

See

Oracle Inventory User's Guide.

Step 24

Processing Constraints

Define processing constraints to prevent users from adding updating, deleting, splitting lines, and cancelling order or return information beyond certain points in your order cycles. Use the constraints Order Management provides, which prevent data integrity violations, or create your own.

This step is optional. Several default values for processing constraints have been defined.

See

[Processing Constraints](#)

Step 25

Defaulting Rules

Define defaulting rules to determine the source and prioritization for defaulting order information to reduce the amount of information you must enter manually in the Sales Orders window.

This step is optional. Several Defaulting rules and corresponding values for have been defined.

See

[Order Management Defaulting Rules](#)

Step 26

Credit Checking

Define your credit checking rules.

This step is required if you plan on performing any type of order credit checking.

See

[Credit Cards and iPayment](#)

Step 27

Holds

Define automatic holds to apply to orders and returns.

This step is required if you plan on performing automatic hold for orders or returns.

See

[Hold Management](#)

Step 28

Attachments

Define standard documents to attach automatically to orders and returns.

This step is optional.

Step 29

Freight Charges and Carriers

Define freight charges and freight carriers to specify on orders.

This step is required if you plan on charging customers for freight or additional order charges.

See

[Freight and Special Charges](#)

Defining Freight Costs, *Oracle Shipping Execution User's Guide*

Defining Freight Carriers, *Oracle Shipping Execution User's Guide*

Step 30

Shipping

Define shipping parameters in Oracle Shipping Execution.

This step is required.

See

[*Oracle Shipping Execution User's Guide.*](#)

Oracle Training Administration Users

Please refer to the Oracle Training Administration User's Guide for additional Order Management Setup Steps.

See

Using Oracle Training Administration with Order Management

Oracle Process Manufacturing Users

Please refer to the Oracle Process Manufacturing User's Guide for additional Order Management Setup Steps.

Profile Options

During implementation, you set a value for each user profile option to specify how Shipping Execution controls access to and processes data.

Generally, the system administrator sets and updates profile values. See: Setting User Profile Options, *Oracle Applications System Administrator's Guide*.

Implementing Profile Options Summary

The following table indicates whether you (the "User") can view or update the profile option and at which System Administrator level the profile options can be updated. The System Administrator level includes User, Responsibility, Application, and Site levels.

The table also displays if the profile option is Optional or Required:

- Required: Requires you to provide a value

- Optional: A default value is provided, so you only need to change it if you do not want to accept the default

Note: If you are using a multi-organization structure, your system administrator must change the *OM Item Validation Organization* profile option to be visible and updateable at the responsibility level. This change enables Shipping Execution to apply the default tax code and revenue account information correctly. See: Setting Up, *Multiple Organizations in Oracle Applications*.

If the profile option from the table is prefaced with an application short code, you can find additional information surrounding the profile option usage in the related Application User Guide.

The table also uses the following values to describe profile option controls for columns User, System Admin User, System Admin Resp, System Admin App, and System Admin Site:

- Yes: You can update the profile option.
- View Only: You can view the profile option value in the Profiles window, but you cannot change it.
- No: You cannot view or change the profile option value.

If the value No is displayed within column Default Value, the meaning is that the default for the profile option is No.

For the profile options table below, the following codes are used to denote profile options used within Order Management that are defined within other Oracle Applications. See the appropriate User Guide for additional details.

(AR) Oracle Receivables

(BOM) Oracle Bills of Material

(FND) Oracle Applications Foundations

(GL) Oracle General Ledger

(INV) Oracle Inventory

(QP) Oracle Advanced Pricing

(WSH) Oracle Shipping Execution

Following the table is a more in-depth description of each of the profile options.

Table 2–2 In-Depth Description of Each Profile Option

| Profile Option Name | User | System Admin. User | System Admin. Resp. | System Admin. App. | System Admin. Site | Required? | Default Value |
|---|-------------------|--------------------|-----------------------|--------------------|-----------------------|-------------------|-------------------|
| OM: Activate Change Management | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only |
| OM: Add Customer | View Only | Yes | Yes - default is None | Yes | Yes - default is None | Required | NULL |
| OM: Add Customer (Order Import) | Yes | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Administer Public Queries | No | Yes | Yes | Yes | Yes | Required | No |
| OM: Apply Automatic Attachments | Yes | No | Yes | Yes | Yes | Optional | Yes |
| OM: Authorized for ATP Override | Yes | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Automatically Open Related Items Window | | | | | | Optional | No |
| OM: Autoschedule | View Only | No | Yes | No | Yes | Optional | NULL |
| OM: Auto Push Group Date | Yes | No | Yes | No | Yes | Optional | NULL |
| OM: Branch Scheduling | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only |
| OM: Charges for Backorders | View Only | No | No | No | Yes | Optional | NULL |
| OM: Charges for included item | View Only | No | No | No | Yes | Optional | NULL |
| OM: Charging Privilege | Yes | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Commitment Balance Checking | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete |
| OM: Commitment Sequencing | No | No | No | No | Yes | Optional | No |
| OM: Configuration Quick Save | No | No | No | No | Yes | Optional | No |

| Profile Option Name | User | System Admin. User | System Admin. Resp. | System Admin. App. | System Admin. Site | Required? | Default Value |
|--|-------------------|--------------------|---------------------|--------------------|--------------------|-------------------|-------------------|
| OM: Context Responsibility for Upgraded Orders | View Only | View Only | Yes | View Only | View Only | Optional | No Default |
| OM: Create Account Information | View Only | Yes | Yes | Yes | Yes | Optional | None |
| OM: Credit Card Privileges | View Only | View Only | Yes | Yes | Yes | Optional | None |
| OM: Credit Memo Transaction Type | View Only | No | No | No | Yes | Required | NULL |
| OM: Credit Salesperson for Freight on Sales | Yes | Yes | Yes | Yes | Yes | No | No |
| OM: Cust Item Shows Matches | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only |
| OM: Customer Relationships | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete |
| OM: Customer Service RMA Feedback | Yes | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Customer Service Report Defect | Yes | Yes | Yes | Yes | Yes | Optional | N |
| OM: Deactivate Pricing at Scheduling | Yes | Yes | Yes | Yes | Yes | No | NULL |
| OM: Debug Level | Yes | Yes | Yes | Yes | Yes | Optional | 0 |
| OM: Debug log Directory | Yes | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Default Blanket Agreement Type | No | No | Yes | | Yes | Optional | |
| OM: Default Line Type from Model | | | | | | | |
| OM: Default Salesrep | No | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Discounting Privileges | No | Yes | Yes | Yes | No | Optional | NULL |
| OM: Employee for Self-Service Orders | No | Yes | Yes | Yes | Yes | Optional | NULL |

| Profile Option Name | User | System Admin. User | System Admin. Resp. | System Admin. App. | System Admin. Site | Required? | Default Value |
|---|-------------------|--------------------|---------------------|--------------------|--------------------|-------------------|-------------------|
| OM: E-Mail Required On New Customers | No | No | No | No | Yes | Optional | No |
| OM: Enable Related Items and Manual Substitutions | Yes | Yes | Yes | Yes | Yes | Optional | No |
| OM: Estimated Authorization Validity Period | Yes | Yes | Yes | Yes | Yes | Required | 21 |
| OM: GSA Discount Violation Action | Yes | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Generic Update Constraints Apply to DFF? | View Only | No | No | No | Yes | Optional | NULL |
| OM: Included Item Freeze Method | Yes | No | No | No | Yes | Required | NULL |
| OM: Invoice Numbering Method | No | No | No | No | Yes | Required | Automatic |
| OM: Invoice Source | View Only | No | No | No | Yes | Required | NULL |
| OM: Invoice Transaction Type | View Only | No | No | No | Yes | Required | NULL |
| OM: Item Change Honors Frozen Price | Yes | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Inventory Stock Location | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete |
| OM: Item Flexfield | No | No | No | No | Yes | Required | System items |
| OM: Item View method | Yes | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Level of Credit Checking | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete |
| OM: Log Directory for Generated Packages | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete |
| OM: Manual Linegroup Adjustment Exists | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only |

| Profile Option Name | User | System Admin. User | System Admin. Resp. | System Admin. App. | System Admin. Site | Required? | Default Value |
|---|-------------------|--------------------|---------------------|--------------------|--------------------|-------------------|-------------------|
| OM: Modify ATP Overridden Lines | Yes | Yes | Yes | Yes | Yes | Optional | ALL |
| OM: Modify Seeded Holds | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only |
| OM: Negative Pricing | Yes | No | No | Yes | Yes | Optional | NULL |
| OM: Non-Delivery Invoice Source | View Only | No | No | No | Yes | Required | NULL |
| OM: Notification Approver | View Only | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Order Information Regulatory logging | Yes | Yes | Yes | Yes | Yes | Yes | |
| OM: Orders Purge Per Commit | View Only | No | No | No | Yes | Optional | 100 |
| OM: Over Return Tolerance | View Only | No | No | No | Yes | Required | 0 |
| OM: Over Shipment Tolerance | View Only | No | Yes | Yes | Yes | Required | 0 |
| OM: Over Shipment Invoice Basis | View Only | No | Yes | Yes | Yes | Required | NULL |
| OM: Party Totals Currency | Yes | View Only | View Only | View Only | Yes | Required | US Dollars |
| OM: Payment Method for Credit Card Transactions | Yes | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Population Of Buyer Code For Dropship | View Only | No | No | No | Yes | Optional | NULL |
| OM: Preinsert Manual Adjustments | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only |
| OM: Process Payment Immediately at Booking | Yes | Yes | Yes | Yes | Yes | Optional | Yes |
| OM: Promotion Limit Violation Action | View Only | No | No | No | Yes | Optional | |

| Profile Option Name | User | System Admin. User | System Admin. Resp. | System Admin. App. | System Admin. Site | Required? | Default Value |
|--|-------------------|--------------------|---------------------|--------------------|--------------------|-------------------|-------------------|
| OM: Quick Sales Order Form: Auto Refresh | Yes | Yes | Yes | Yes | Yes | Optional | Application |
| OM: Quick Sales Order Form: Defer Pricing | Yes | yes | Yes | yes | Yes | Optional | No |
| OM: Records on Summary Page for External Users | Yes | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Reservation Time Fence | Yes | No | Yes | No | Yes | Optional | NULL |
| OM: Return Item Mismatch Action | Yes | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Return Unfulfilled Referenced Line Action | Yes | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Risk Factor Threshold for Electronic Payments | Yes | Yes | Yes | Yes | Yes | Optional | 50 |
| OM: Round Unit Selling Price | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete |
| OM: Run Order Import for XML | Yes | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Sales Order Form: Cascade Header Changes to Line | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only | Internal use only |
| OM: Sales Order Form Preference | Yes | Yes | Yes | Yes | Yes | Optional | Sales Orders |
| OM: Sales Order Form: Restrict Customers | Yes | Yes | Yes | Yes | Yes | Optional | Global |
| OM: Schedule Line on Hold | Yes | No | Yes | No | Yes | Optional | NULL |
| OM: Scheduling Role | No | Yes | Yes | No | No | - | Null |
| OM: Send Changed Lines to Pricing | No | Yes | Yes | Yes | Yes | Optional | Yes |
| OM: Set of Books | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete |

| Profile Option Name | User | System Admin. User | System Admin. Resp. | System Admin. App. | System Admin. Site | Required? | Default Value |
|--|-----------|--------------------|---------------------|--------------------|--------------------|-----------|---------------|
| OM: Set Receivables Transaction Date as Current Date for Non-Shippable lines | Yes | No | No | No | Yes | Optional | No |
| OM: Show Discount Details on Invoice | Yes | No | Yes | Yes | Yes | Required | No |
| OM: Show Line Details | Yes | Yes | Yes | Yes | Yes | Optional | NULL |
| OM: Show Process Messages Flag | | | | | | | |
| OM: Source Code | No | No | No | No | Yes | Required | ORDER ENTRY |
| OM: Use Configurator | Yes | No | No | No | Yes | Optional | Yes |
| OM: Under Return Tolerance | View Only | No | No | No | Yes | Required | 0 |
| OM: Under Shipment Tolerance | View Only | No | No | No | Yes | Required | 0 |
| OM: Unit Price Precision Type | Yes | Yes | Yes | Yes | Yes | Optional | NULL |
| OE: Validate Option Line Item | Yes | Yes | Yes | Yes | Yes | Optional | Yes |
| OE: Validate Standard Line Item | No | Yes | Yes | Yes | Yes | Optional | Yes |
| OM: View Canceled Lines | Yes | Yes | Yes | Yes | Yes | Optional | Yes |
| OM: View Closed Lines | Yes | Yes | Yes | Yes | Yes | Optional | Yes |
| OM: View Pricing/Availability Information in Related Items | | | | | | | |
| Tax: Inventory Item for Freight | View Only | No | Yes | No | Yes | Optional | NULL |
| Tax: Invoice Freight as Revenue | View Only | Yes | Yes | Yes | Yes | Optional | NULL |

| Profile Option Name | User | System Admin. User | System Admin. Resp. | System Admin. App. | System Admin. Site | Required? | Default Value |
|--|-----------|--------------------|---------------------|--------------------|--------------------|-----------|--------------------------|
| AR: Item Flexfield Mode (AR) | Yes | Yes | Yes | Yes | Yes | Required | NULL |
| AR: Use Invoice Accounting for Credit Memos (AR) | View Only | Yes | Yes | Yes | Yes | Required | No |
| HZ: Generate Contact Number (AR) | Yes | Yes | Yes | Yes | Yes | Required | NULL - equivalent to Yes |
| HZ: Generate Party Number (AR) | Yes | Yes | Yes | Yes | Yes | Required | NULL - equivalent to Yes |
| HZ: Generate Party Site Number (AR) | Yes | Yes | Yes | Yes | Yes | Required | NULL - equivalent to Yes |
| Tax: Allow Ad Hoc Tax Changes (AR) | View Only | Yes | Yes | Yes | Yes | Required | NULL |
| Tax: Allow Manual Tax Lines (AR) | View Only | Yes | Yes | Yes | Yes | Required | NULL |
| Tax: Allow Override of Customer Exemptions (AR) | View Only | Yes | Yes | Yes | Yes | Required | NULL |
| Tax: Allow Override of Tax Code (AR) | View Only | Yes | Yes | Yes | Yes | Required | NULL |
| Tax: Calculate Tax on Credit Memos (AR) | View Only | No | Yes | Yes | Yes | Optional | NULL |
| Tax: Use Tax PL/SQL Vendor (AR) | View Only | No | Yes | Yes | Yes | | No |
| Tax: Use Tax Vendor (AR) | View Only | No | Yes | Yes | Yes | Required | No |
| BOM: Check for Duplicate Configuration (BOM) | View Only | No | No | No | Yes | Optional | No |
| BOM: Component Item Sequence Increment (BOM) | Yes | Yes | Yes | Yes | Yes | Optional | 10 |

| Profile Option Name | User | System Admin. User | System Admin. Resp. | System Admin. App. | System Admin. Site | Required? | Default Value |
|---|-----------|--------------------|---------------------|--------------------|--------------------|-----------|---------------|
| BOM: Configurator URL of UI Manager (BOM) | Yes | Yes | Yes | Yes | Yes | Required | |
| BOM: Default Bill of Material Levels (BOM) | Yes | Yes | Yes | Yes | Yes | Optional | No |
| Sequential Numbering (FND) | View Only | No | Yes | Yes | Yes | Required | |
| Default Country (FND) | Yes | Yes | Yes | Yes | Yes | Required | NULL |
| Flexfields: Open Descr Window (FND) | Yes | Yes | Yes | Yes | Yes | Optional | Yes |
| Journals: Display Inverse Rate (GL) | Yes | Yes | Yes | Yes | Yes | Optional | At site level |
| INV: Capable to Promise (INV) | Yes | Yes | No | No | Yes | Optional | NULL |
| QP: Accrual UOM Class (QP) | View Only | No | No | Yes | Yes | Optional | No Default |
| QP: Blind Discount Option (QP) | View Only | No | No | Yes | Yes | Required | Yes |
| QP: Bypass the Pricing Engine (QP) | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete | Obsolete |
| QP: Item Validation Organization (QP) | View Only | No | Yes | No | Yes | Required | No Default |
| QP: Line Volume UOM Code (QP) | View Only | No | No | Yes | Yes | Optional | No Default |
| QP: Line Weight UOM Code (QP) | View Only | No | No | Yes | Yes | Optional | No Default |
| QP: Negative Pricing (QP) | View Only | No | No | Yes | Yes | Required | No Default |
| QP: Return Manual Discounts (QP) | Yes | Yes | Yes | Yes | Yes | | |
| QP: Source System Code (QP) | No | No | No | Yes | Yes | Required | No Default |

| Profile Option Name | User | System Admin. User | System Admin. Resp. | System Admin. App. | System Admin. Site | Required? | Default Value |
|---|------|--------------------|---------------------|--------------------|--------------------|-----------|---------------|
| QP: Unit Price Precision Type (QP) | No | No | No | Yes | Yes | Required | Standard |
| QP: Verify GSA Violations (QP) | No | No | No | No | Yes | Required | No |
| WSH: Internet Proxy URL (WSH) | Yes | No | No | No | No | Optional | NULL |

Order Management Profile Option Descriptions and Settings

OM: Activate Change Management ONT_ACTIVATE_CMS

This profile option is for internal use only. Do not attempt to enter or update the value of this profile option.

OM: Add Customer ONT_ADD_CUSTOMER

This profile option determines which users who can access the Order Management Add Customer window to enter customers, customer addresses, and customer contact information. Select from:

- All: Users can access the Add Customer window to create new customers, customer addresses, and customer contacts.
- None: User is not given access to the Add Customer form.
- Address and Contact only: Users can access the Add Customer window to create both new customer addresses and/or customer contacts for existing customers only.

The default for this profile option is *None*.

Note: You cannot update existing customer information via the Add Customer window. However, if the e-mail address field is NULL for a customer and/or customer contact, you can update these fields.

OM: Add Customer (Order Import) ONT_ADD_CUSTOMER_OI

This profile option determines which users can create new customers and customer details when importing order using the Order Import concurrent program. Select from:

- All: Users can access the Add Customer window to create new customers, customer addresses, and customer contacts.
- None: User is not given access to the Add Customer form.
- Address and Contact only: Users can access the Add Customer window to create both new customer addresses and/or customer contacts for existing customers only.

The default for this profile option is *None*.

Note: You cannot update existing customer information via the Add Customer window. However, if the e-mail address field is NULL for a customer and/or customer contact, you can update these fields.

OM: Administer Public Queries ONT_ADMINISTER_PUBLIC_QUERIES

This profile option determines which responsibility is able to create and update public queries within Order Management windows.

OM: Apply Automatic Attachments OE_APPLY_AUTOMATIC_ATCHMT

This profile option determines whether rule-based attachments are applied without user intervention.

OM: Authorized for ATP Override ONT_AUTHORIZED_FOR_ATP_OVERRIDE

This profile option controls which responsibilities or users have the authority to perform the ATP override. If YES, then the user or responsibility can override the ATP Schedule Date. Null is interpreted as No. This can be set at the site, responsibility, or user level.

OM: Automatically Open Related Items Window

This profile option allows the user who does high volume up-selling and cross-selling to have the Related Items window open automatically for all items which have relationships defined. Options are Yes or No (default).

OM: Auto Push Group Date ONT_AUTO_PUSH_GRP_DATE

This profile option controls scheduling when a new line is inserted into an existing set. If the new line cannot be scheduled on the same date as the rest of the set, this profile is used. Select from”

- Yes: The entire set will be automatically rescheduled.
- No or NULL: An error will occur. You can change the dates or quantities to make scheduling succeed.

This profile option can be overridden for a parameter specific to customers or customer sites by setting a value in the Customer window.

The default is NULL.

OM: AutoSchedule ONT_AUTOSCHEDULE

This profile option determines the default setting for autoscheduling orders, and also controls the display of the Availability window within the Sales Order Lines window. Please note that autoscheduling orders is only supported for orders that contain standard line items, not models or kits.

Select from:

- Yes: Order lines are scheduled automatically at the time of entry. Automatically display the Availability window within the Sales Order window when entering order line details.
- No or NULL: Order lines are not scheduled automatically at the time of entry. *Do not* automatically display the Availability window within the Sales Order window when entering order line details.

Note: If the item or model is a standard item or has the item ATP flag enabled, ATP inquiry will automatically be performed on the item or model once it has been entered on an order line and a user exits the item field.

The Line Generic workflow process sequences the line scheduling action to occur after you book the order. However, even if you have set this profile option to No and you indicate ship set or arrival set on a order line, the order entry processing schedules the line and sets the Visible Demand Flag.

To group lines into ship sets and arrival sets, order entry processing uses the warehouse, scheduled shipment date, ship to location, shipment priority, and

shipment method. Therefore, it schedules the order lines with ship set values to obtain scheduled shipment date.

If you want the Line Generic workflow process to schedule an order line, you cannot specify a ship set or arrival set for it.

OM: Default Blanket Agreement OE_DEFAULT_BLANKET_ORDER_TYPE

This profile defaults the order type to generate blanket number. This profile should be allowed to setup only at the responsibility and site level.

OM: Branch Scheduling ONT_BRANCH_SCHEDULING

This profile option is for internal use only. Do not attempt to enter or modify the value of the profile option.

OM: Charges for Backorders

This profile option controls the setting of the Calculate Price Flag when backorder lines are created.

Select from:

- No or NULL: The Calculate Price Flag will be set to Freeze, and the pricing engine will not apply charges.
- Yes: The Calculate Price Flag will be set to *Partial* to enable charges to be calculated when the backordered item ultimately ships.

OM: Charges for included item ONT_CHARGES_FOR_INCLUDED_ITEM

This profile option determines if Order Management will calculate and return charges for included items. The profile option setting does not control the pricing of include items, only the calculation and return of charges associated with an order line containing an included item.

Select from:

- Yes: Calculate and return charges for included items.
- No: Do not calculate charges for included items.

OM: Charging Privilege OE_CHARGING_PRIVILEGE

This profile option controls your ability to manually apply freight and special charges on an order or order line.

Select from:

- **Full Access:** You can modify and apply charges, but you cannot modify non-overridable charges.
- **View Only Access:** You can only view charges.
- **Unlimited Access:** You can modify and apply all charges including the non-overridable charges.

OM: Configuration Quick Save `ONT_CONFIG_QUICK_SAVE`

This profile option determines how Order Management will save option or model class lines for unbooked sales orders from within the Sales Order window *only*.

If you set this profile option to Y, class lines will be saved by a direct database insert call with a minimum of order line defaulting values, unless the value of the Order Management profile option OM: Included Item Freeze Method is set to Entry. If the value of OM: Included Item Freeze Method is set to Entry, you cannot perform direct database inserts of model or class order lines with a minimum of defaulting.

OE: Commitment Balance Checking `OE_COMMITMENT_BAL_CHECK`

This profile option is obsolete and no longer used by Order Management. Order Management currently validates commitment balance prior to applying the commitment amount to an order line; if the balance is zero or less, the commitment cannot be applied to order line.

OM: Commitment Sequencing `OE_COMMITMENT_SEQUENCING`

This profile option determines whether or not Oracle Order Management calculates and stores the amount of the line that can be paid using the commitment, and if commitments will be applied in Oracle Receivables in the same sequence that they are applied in Order Management. Select from:

- **Yes:** Order Management populates the commitment applied and then will interface the commitment amount applied to Oracle Receivables.

Note: If you set this profile option to Yes, and you have not installed Bills Receivables for Oracle Receivables, Order Management will not capture the applied commitment amount and therefore will not relay commitment applied amounts to Oracle Receivables; no Warning or Error message is displayed.

- No: Order Management does not calculate the exact commitment applied amount for an order line. Instead, the extended amount of the line is shown in the commitment applied field within the Sales Order Line, Pricing Tab window.

OM: Context Responsibility for Upgraded Orders OE_RESP_FOR_WF_UPGRADE

This profile option is used to flag certain responsibilities to be used when setting the applications context for deferred activities for upgraded orders and order lines. It is used for customers who are upgrading and only needs to be set if a user, who has created orders, (created_by column in Order Management schema) has multiple responsibilities that point to a single operating unit.

This profile option can only be set at the Responsibility level.

OM: Copy Model DFF to child lines.

This profile option enables copying of all flexfields to the lines from the model line. Context sensitive flexfields are more popular; you may not want the same flexfields copied to all the child lines of a model. The default value is No. Set this parameter to 'Yes' in order for the values to copy.

OM: Create Account Information ONT_CREATE_ACCOUNT_INFORMATION

This profile option is used to set the user's permissions to create accounts, sites, and contacts. It can be set at the Site, Application, Responsibility, and User levels.

The seeded profile values are:

- All: The user is permitted to create Accounts, Account Sites, Account Contracts, and related information
- Account Site and Account Contact Only: The user is permitted to create Account Sites, Account Contracts, and related information only
- None: The user is not permitted to create any of the above

The default value is None.

The Create Account Layer API will check this profile and create the account layer only if the user has the correct permissions. The calling application can pass a profile value to the API. It is useful if the calling application has already determined the user's privileges.

OM: Credit Card Privileges ONT_CREDIT_CARD_PRIVILEGES

This profile option limits the amount of credit card information displayed in the Sales Orders window and limits who can perform manual or on-line authorizations. The authorization code and credit card number fields displays only the last four digits if the profile option is set to None or Limited. On-line and manual authorizations are allowed if this profile option is set to All or Limited. Choose from All, Limited, or None.

OM: Credit Memo Transaction Type OE_CREDIT_TRANSACTION_TYPE_ID

This profile option value is transferred to Receivables if no value is defined for the credit memo Receivables transaction type associated with the Inbound Order Line OM transaction type and either:

- The Order Header has an OM transaction type of Mixed *or*
- The Receivables transaction type associated with the Order Header OM transaction type is NULL

OM: Credit Salesperson for Freight on Sales WSH_CR_SREP_FOR_FREIGHT

This profile option specifies whether to credit the Salesperson on the invoicing line or order header for freight charges when the freight charges are treated as revenue.

OM: Cust Item Shows Matches OE_CUST_ITEM_SHOW_MATCHES

This profile option determines whether Order Management defaults the Item with the highest ranking item or shows the list of all the matched Internal item numbers when a customer item number is used and that customer item is cross-referenced to more than one internal item.

OM: Customer Relationships ONT_CUSTOMER_RELATIONSHIPS

This profile option is no longer used by Oracle. It is now obsolete, and has been replaced by an entry on the Order Management Parameters window.

OM: Customer Service RMA Feedback ONT_FEEDBACK_PROFILE

This profile option indicates the Customer contact that a workflow notification will be sent to for RMA requests entered via the Order Information Portal. The values for the LOV for this profile option is all users defined to Oracle Applications via the System Administrator responsibility having *no* customer contacts.

The default for this profile option is Null.

OM: Customer Service Report Defect ONT_REPORTDEFECT_PROFILE

This profile option indicates the Customer contact that will receive a workflow notification for any Report Defects submitted via the Order Information Portal. The values for the LOV for this profile option is all users defined to Oracle Applications via the System Administrator responsibility having *no* customer contacts.

The default for this profile option is Null.

OM: Deactivate Pricing at Scheduling `ONT_NO_PRICING_AT_SCHEDULING`

This profile option should not be set unless directed by an Oracle Representative.

OM: Debug Log directory `OE_DEBUG_LOG_DIRECTORY`

This profile option determines the default directory used to store log file outputs when performing Order Management debugging.

OM: Debug Level `ONT_DEBUG_LEVEL`

This profile option is used to store debug messages to assist in problem identification. The OM: Debug profile option controls which debug messages get written to the debug log based on their assigned level. The directory to be specified for this profile should be available in *utl_file_dir* parameter of the init.ora file (or check v\$parameter) of the application database instance.

Assigning a value greater than 0 or NULL causes debugging to be turned on. The value of this option determines the level of debug messages printed within a log file. For example, if OM: Debug Level has a current value of 3, all debugging messages with a level of 1, 2 or 3 will be spooled out to the debug log.

Valid values for this profile option are:

- NULL: Do not print any debug messages
- 1: Level 1; Print a limited subset of debug messages (level 1)
- 2: Level 2; Print a limited subset of debug messages, including level 1
- 3: Level 3; Print a limited subset of debug messages, including levels 1, 2
- 4: Level 4; Print a limited subset of debug messages, including levels 1, 2, 3
- 5: Level 5; Print all debug messages

If you set this profile option to a value other than NULL, system performance may be adversely affected; the greater the value entered, the greater the chance your system may experience performance issues.

Order Management recommends you set this profile option only if you are attempting to gather additional details for an unexpected application issues and then rest the value back to NULL once you have gathered the necessary debug details.

The default for this profile option is NULL.

Add OM: Default Line Type from Model.

This profile allows different line types to belong to the same line category for configuration components. The default is No.

OM: Default Salesrep `ONT_DEFAULT_PERSON_ID`

A profile to default the dummy salesrep for the Telesales Order. The Telesales team will pass the salesrep_id for the order if that information is available in the eBusiness Center. If no salesrep is passed to the Sales Order form, then Order Management will default the salesrep value from the profile setup in Order Management. Integration with TeleSales is available with a TeleSales license.

OM: Discounting Privilege `ONT_DISCOUNTING_PRIVILEGE`

This profile option provides the choice of controlling user's ability to apply discounts on an order or order line.

Select from:

- Full: Ability to apply any valid discount against an order or order line, as long as the order type of the order does not enforce list prices. (Default value).
- Non-Overridable Only: Ability to apply only non-overridable discounts against an order or order line.
- Unlimited: Ability to apply any valid discount against any order or order line, regardless of whether the order type of the order enforces list prices.
- None: No privileges, view-only access.

Note: A Null value for this profile option is handled as if you selected the value FULL.

OM: Employee for Self-Service Orders `ONT_EMP_ID_FOR_SS_ORDERS`

This profile option determines the default employee assignment (CREATED_BY) for requisition creation in the event that the user creating the sales order or return does

not have an associated employee id and the order source name (OE_ORDER_SOURCES.ORDER_SOURCE_ID is greater than or equal to 11 and less than or equal to 19) is one of the following values:

- IBU (ORDER_SOURCE_ID=11)
- iStore Walkin (ORDER_SOURCE_ID=12)
- iStore Account (ORDER_SOURCE_ID=13)
- iStore Oneclick (ORDER_SOURCE_ID)=14
- Contract Renewal (ORDER_SOURCE_ID=15)
- Order Capture Quotes (ORDER_SOURCE_ID=16)
- CRM Apps (ORDER_SOURCE_ID=17)
- Field Service Report (ORDER_SOURCE_ID=18)
- Telesales Collateral (ORDER_SOURCE_ID=19)

This profile option is *required* if importing self-service orders or returns that are created by users who are not defined as an employee within the system.

OM: E-Mail Required on New Customers ONT_MANDATE_CUSTOMER_EMAIL

This profile option determines whether the field E-mail address is required for any customer or customer contact you define within Order Management. Select from:

- Yes: E-mail address is required, for both the customer and customer contact, when defining or updating a customer or customer contact.
- No or NULL (the default): E-mail address is not required when defining or updating either a customer or customer contact.

OM: Enable Related Items and Manual Substitutions ONT_OPEN_RELATED_ITEMS

Values: Yes or No

Default Value: No

Usage: This option enables you to turn on Related Items. APS users should not turn on Related Items because the forecast demand consumption would be incorrect. Options are Yes or No (default).

default Levels: Viewable and updatable at all levels.

OM: Estimated Authorization Validity Period ONT_EST_AUTH_VALID_DAYS

This profile option determines the estimated number of days a credit card authorization is assumed to be valid. The default value is 21 days.

OM: GSA Discount Violation Action `ONT_GSA_VIOLATION_ACTION`

This profile option determines how you want the user notified when you define a discount that results in an item price less than the price on a GSA discount for the same price list.

Select from:

- Error: Provide error message
- Warning: Provide a warning message

OM: Generic Update Constraints Apply to DFF? This profile option determines whether you can update processing-constrained descriptive flexfield attributes on closed orders. There is a seeded processing constraint against updating closed order lines; this profile option does not control order line fields other than the flexfield attributes. Select from:

- Yes: (the default): you cannot update processing-constrained flexfield attributes on closed orders.
- No: you can update processing-constrained flexfield attributes on closed orders.

This profile option is updatable at the site level.

Regardless of this profile option, you can set up constraints specific to flexfield attribute constraints.

OM: Included Item Freeze Method `ONT_INCLUDED_ITEM_FREEZE_METHOD`

This profile option determines the date and time Order Management uses to determine when included items for a configuration's bill of material are added as lines on the order. Included items for a PTO Model/Class/Kit will also be exploded based on the profile option.

Select from:

- Pick/ Purchase Release: If the value for this profile option is set to Pick / Purchase Release, both the Inventory Interface and Purchase Release workflow activities will explode the included items when processed during pick release and purchase release, respectively.
- Entry: If the value for this profile option is set to Entry, included items will explode on the sales order when moving to a new line or performing a save.

Note: If the Order Management profile option *OM: Configuration Quick Save* is set to *Yes*, you should not set the value of this profile option to *Entry*. If you do, the Quick Save functionality for streamlining model class order lines will be unavailable.

- **Booking:** If the value for this profile option is set to *Booking*, The Booking Activity will explode included items when processed.

OM: Invoice Numbering Method WSH_INVOICE_NUMBERING_METHOD

This profile option determines whether or not the Invoicing activity generates invoice numbers based on the delivery name or automatically.

Select from:

- **Automatic:** Choose this value if you want to create invoices with automatic numbering. Transaction numbering is controlled automatically by the Receivables AutoInvoice concurrent program. If you set the profile option to this value, you must use an invoice source with automatic transaction numbering.
- **Delivery Name:** Choose this value if you want to create invoices for all shippable lines based on Delivery Name. If you process order lines in a delivery in more than one batch, then this function modifies the delivery name with a number to create a unique transaction number.

If you set the profile option to this value, you must use an invoice source without automatic transaction numbering.

Note: Delivery based invoicing is not supported if order lines within the delivery belong to different operating units.

OM: Invoice Source OE_INVOICE_SOURCE

This profile option value is transferred to Receivables if the Invoice Source value is null for your transaction type at Order Line and null at the Order Header level.

OM: Invoice Transaction Type OE_INVOICE_TRANSACTION_TYPE_ID

This profile option value is transferred to Receivables if no value is defined for the Receivables transaction type associated with the Outbound OM order line transaction type and OM order Header transaction type.

OM: Inventory Stock Location This profile option is no longer used by Oracle. It is now obsolete. If the inventory item is set up to the locator level Order Management will use that as the default picking location. You can also enable default staging locations at the locator level in Shipping Parameters window.

OM: Item Change Honors Frozen Price `ONT_HONOR_ITEM_CHANGE`

This profile option determines whether Order Management will change the value of calculate price flag when an item is changed on an unbooked order line.

Select from:

- Yes: Order Management will not change the value of the calculate price flag, whose original value is honored; the original value will control whether the order line gets repriced.
- No: Order management will set the calculate price flag to Y, and the order line will be repriced.

OM: Item Flexfield `OE_ID_FLEX_CODE`

This profile option determines the structure of the Item Flexfield (System Items) used by Order Management. This structure should be the same across all applications in the same database.

OM: Item View Method `ONT_ITEM_VIEW_METHOD`

This profile option determines the display method of data retrieved within the LOV for the Item field within the Order Management Options Window. Valid values are:

- 1: Only return item descriptions, with child indentations.
- 2: Only return item description without child indentations.
- 3: Display the concatenated item segment values with child indentations.
- 4: Display the concatenated segment values without indentation.

OM: Level of Credit Checking `OE_CREDIT_CHECKING_LEVEL`

This profile option is obsolete and no longer used. You now specify the credit checking level when defining your Credit Check Rules.

OM: Log Directory for Generated Packages `OE_CONC_LOG_DIRECTORY`

This profile option is no longer used by Oracle Order Management.

OM: Manual Linegroup Adjustment `ONT_MANUAL_LINEGROUP_ADJUSTMENT`

This profile exists in a place holder profile. Based on the value of this profile, pricing integration will determine whether to pass all lines under the current header to engine or just one current line.

This place holder profile was created while waiting for function/API from pricing to see if there are line group types of modifiers in the pricing setup. When this pricing API is officially ready, this profile will be replaced with an API call. Right now, the profile value by default is YES, which means there are line group modifiers in setup. For now, before the API is ready, you can improve performance of manual adjustments by changing it to NO if you are sure that you will not use line group for manual adjustments.

OM: Modify ATP Overridden Lines `ONT_MODIFY_ATP_OVERRIDDEN_LINES`

The profile option controls whether all users or only authorized users are allowed to update a line with an ATP override. Values are Authorized Users Only, and ALL.

OM: Modify Seeded Holds

Enables you to modify seeded hold attributes. Options are Yes or No. The default is No or Null.

OM: Negative Pricing `ONT_NEGATIVE_PRICING`

This profile option controls whether Order Management allows a negative list price or negative selling price to be determined by the Pricing Engine or to be entered as an override by a user on a sales order.

The profile option QP: Negative Pricing is used for price lists, and controls whether a negative unit price can be entered on a price list

OM: Notification Approver `OE_NOTIFICATION_APPROVER`

This profile option is used during upgrading Order Entry Order Cycle History to Order Management Workflow History. Setting this profile option enables you to send workflow Notifications (Approval or FYI notifications) to the Role that the option is set to for the following Oracle Order Management seeded Workflow types:

- OEOH-OM Order Header
- OEOL-OM Order Line

This profile option can be optionally set. When an order or line is created, the value of this profile option is defaulted to the wf item attribute Notification Approver on the Sales Order Header or Sales Order Line work items. Valid values for this profile are based upon a Value Set that uses the seeded view WF_ROLES.

If the profile option is NULL, then notifications for this role value will go to the user SYSADMIN.

All upgraded approvals are sent to this role value of this Profile option.

OM: Non-Delivery Invoice Source OE_NON_DELIVERY_INVOICE_SOURCE

This profile option value is transferred to Receivables if the *OM: Invoice Numbering Method* profile option is set to Delivery and the line is non-shippable.

OM: Order Information Regulatory logging ONT_MSDS_LOGGING

This profile option is used to determine if you enable logging OPM Regulatory history dispatching within the Order Information portal. Select from:

- Yes: Enable logging OPM Regulatory history dispatching within the Order Information portal. Document and user details are stored within the dispatch histories using an API. MSDS document will be displayed to a user only if a successful log for the request is created.
- No: Do not enable the logging of OPM Regulatory history dispatching within the Order Information portal.

The default for this profile is No.

OM: Orders Purge Per Commit OM_ORDERS_PURGE_PER_COMMIT

This profile option determines how many orders the purge process should purge before performing a commit to the database.

OM: Over Return Tolerance OM_OVER_RETURN_TOLERANCE

This profile option indicates the percentage by which a return line can be over-received. Any value greater than or equal to zero (0) is a valid value. This profile option is set at the site level. Default value is zero (0).

OM: Over Shipment Invoice Basis OE_OVERSHIP_INVOICE_BASIS

This profile option determines whether to invoice the ordered quantity or the shipped quantity for an over shipment. This profile option can be overridden for

the parameter specific to customers or customer sites by setting a value in the Customer window. Default value is Shipped.

OM: Over Shipment Tolerance OM_OVER_SHIPMENT_TOLERANCE

This profile option indicates the percentage by which an order line can be over-shipped. Any value greater than or equal to zero (0) is a valid value. This profile option is set at the site level. Default value is zero (0).

This profile is also applicable to Inbound Lines (RMA).

OM: Party Totals Currency OM_CUST_TOTAL_CURRENCY

This profile option determines the currency used by the Calculate Party Totals current program which sums order totals by Party. Order Management recommends that you set this profile option at the Site level only.

OM: Payment Method for Credit Card Transactions ONT_RECEIPT_METHOD_ID

This profile option is used by the credit card authorization process as a default for the primary payment method if a specific customer does not have a primary payment method defined.

OM: Population Of Buyer Code For Dropship ONT_POPULATE_BUYER

This profile option is used to control how Order Management will populate buyer details when sending sales order data to Oracle Purchasing for requisition processing during requisition import. Select from:

- Order Creator: The suggested_buyer_id field in the po_requisitions_interface table is populated with the buyer details (the employee_id of the person who enters the sales order). Your sales people must be defined as a buyers in Oracle Purchasing.
- NULL: Oracle Purchasing will perform the Get_Suggested_Buyer_Id function (retrieve the buyer information from the master item)

Note: If you set the value of this profile option to NULL, you will be unable to select the value *Buyer* for the input parameter Group prior to submission of the Oracle Purchasing Requisition Import concurrent program.

OM: Promotion Limit Violation Action ONT_PROMOTION_LIMIT_VIOLATION_ACTION

This system level profile option determines the hold action Order Management will take when encountering a initial promotional hold returned by the pricing engine. If the pricing engine returns a possible promotional hold for an order or order line, Order Management will use the value of this profile option to determine the course of action for the order or line. Messages are generated and can be viewed within the Process Messages Window.

Select from:

- Place holds where violated (either Line or Order): If the pricing engine returns an initial promotional hold, place a hold for the corresponding order or order line.
- No holds applied: If the pricing engine returns an initial promotional hold, do not apply a hold for either an order or order line. Allow the order or order line to continue processing within its' associated workflow.
- Place order on hold when any violation occurs (both Line and Order): If the pricing engine returns an initial promotional hold, irrespective of the hold level, place the order on hold, in addition to any order lines that may be marked for promotional hold.

This profile option is optional, and the default is Null.

OM: Process Payment Immediately at Booking ONT_Process_Payment_Immediately

This profile option determines how and when payment processing occurs for orders that utilize both a *Payment Term* which enable prepayment and a *Payment Type* of Credit Card. You can choose to process pending payments immediately at booking or in deferred mode (submission of a concurrent program). Select from:

- Yes: Payment is processed when an order is booked for the first time, only (immediate processing). If receipt for payment is successfully created, a message is displayed informing the user of the receipt creation.
 - a. If the payment fails processing due to a data error or other Oracle iPayment data errors, the order is placed on ePayment Hold).
 - b. If the payment fails processing due to a server error (connection to your credit card authorization routines encounter an error) or a failed to call to Oracle iPayment, the order is placed on ePayment Server Failure Hold.

If receipt for payment is unsuccessful, a message is displayed informing the user that a receipt was not successfully created.

Both ePayment Hold and ePayment Server Failure Hold are system generated holds, and cannot be removed by a user. You must submit the Process Pending Payments concurrent program in order to remove these hold types.

- No: Payment is not processed when an order is booked for the first time. When an order is booked, the order is placed on Pending Process Payment (PPP) Hold (deferred processing). The payment for the order is processed during the next successful submission of the Process Pending Payments concurrent program.

The default for this profile option is Yes.

OM: Quick Sales Order Form: Auto Refresh ONT_QUICK_OE_AUTO_REFRESH

This profile allows you to control if the active line detail region displays data instantly corresponding to the line when navigating between lines and without the detail blocks instantiated/navigated. Also, with the toggle query coordination check box unchecked, you have to navigate to the detail regions to display the information corresponding to each of the detail regions. When a new session begins, the value will be read from the profile to control the instant automatic refresh of the form when changes have occurred.

Values for LOV: Line/Line Details/Both - Site, Application, Responsibility, User.

OM: Quick Sales Order Form: Defer Pricing OE_UI_DEFER_PRICING

This profile will control the default setting although users will be able to activate it from the form. When a new session begins value will be read from the profile.

The default value is No.

OM: Defer Pricing. Values: Yes/No

Values at Site, Applications, Responsibility, and User Level.

OM: Records on Summary Page for External Users ONT_ICP_DEFAULT_RECORDS

This profile option indicates the default query (for external users) called when a user requests either the Orders or Delivery summary pages available from the Order Information Portal. Valid values for this option are any positive, whole integer.

For external users, if you set this profile option to some value other than zero, the Order Information Home page and the Order Status page in Order Information will

run a default query to show most recent open orders based upon the numeric value of the profile option. If you set the profile option to zero, the default query is not executed when displaying the Order Information Home page or the Order Status page.

OM: Reservation Time Fence `ONT_RISK_FAC_THRESHOLD`

This profile option controls automatic reservations during scheduling. The profile option represents the number of days into the future that scheduling will reserve. The default value is NULL which means that scheduling will not automatically reserve. This profile option is used during autoscheduling and also by the scheduling workflow activity and concurrent program to perform reservations.

OM: Return Item Mismatch Action `ONT_RETURN_ITEM_MISMATCH_ACTION`

This profile option controls what should occur if you try to change the item ID of a referenced return line. Select from:

- Reject: Line processing is halted with an error message.
- Warning: Line processing is continued with a warning.
- Allow: Line processing continues with no warning or error.

The default for this profile option is Allow.

OM: Return Unfulfilled Referenced Line Action `ONT_RETURN_FULFILLED_LINE_ACTION`

This profile option is used for returns to control return of unfulfilled lines. Default value is Allow.

Select from:

- Reject: Do not create return line if the reference line is non-fulfilled.
- Warning: Create return line with Warning if the referenced line is non-fulfilled.
- Allow: Create return line without Warning if the referenced line is non-fulfilled.

OM: Risk Factor Threshold for Electronic Payments `ONT_RISK_FAC_THRESHOLD`

This profile option sets a threshold for determining whether a credit card authorization qualifies as a high risk. Scores can range from 0 to 100, referring to a risk free authorization and 100 referring to a high risk authorization. If the score for

a transaction exceeds this threshold, Order Management will put the order on a High Risk Hold. The default value is a score of 50.

OM: Round Unit Selling Price OE_UNIT_PRICE_ROUNDING

This profile option is no longer used within Order Management and is obsolete. It has been replaced with the Pricing profile option QP: Selling Price Rounding Options.

OM: Run Order Import for XML ONT_TRANSACTION_PROCESSING

This profile option determines if the Oracle Order Import concurrent program is automatically submitted after the successful import of XML data into Order Management interface tables. Select from:

- Asynchronous: Order Import will not automatically be submitted for execution once XML data has been interfaced. You must manually submit the concurrent program after XML data has been interfaced to Order Management.
- Synchronous: Order Import will automatically be submitted for execution once XML data has been interfaced to Order Management.

The default for this option is NULL.

Note: A NULL value for this profile option is equivalent to setting the profile option to Asynchronous.

OM: Sales Order Form: Cascade Header Changes to Line OM_UI_CASCADE_HEADER_ATTRIBUTES

This profile option is for internal use only. Do not attempt to enter a value for this profile option.

OM: Sales Order Form Preference ONT_SALES_ORDER_FORM_REFERENCE

Order Management will provide two wrapper functions which will be packaged in a form library and do not have other dependencies. External products like TeleSales can determine which Sales Order UI to be invoked based on the return value from the function. The wrapper function will look at a OM profile to be seeded by OM and will call the classic Sales Order window or the new Quick Sales Order window. This profile can be set at all levels. The default value is Classic Sales Order window.

OM: Sales Order Form: Restrict Customers ONT_UI_RESTRICT_CUSTOMERS

The value of this profile option determines if all customers are displayed within the Customer field on the Sales Order Header, Main Tab or only customers who have addresses in the organization the order is defined for. This profile is applicable only for the Sales Order Header Main Tab.

Customers are visible across all operating units; Customer Addresses are Organization specific.

The default for this profile option is *Global*.

OM: Schedule Line on Hold `ONT_SCHEDULE_LINE_ON_HOLD`

This profile option controls whether scheduling will attempt to schedule lines that are on hold. The default value is NULL, which is the equivalent to Yes.

OM: Scheduling Role `ONT_SCHEDULING_ROLE`

Values are CSR Only, CSR and Scheduler, Scheduler Only

Values can be set at Responsibility or User Level.

Only System Administrator can set this at the user level, Not user controlled.

OM: Send Changed Lines to Pricing `ONT_SEND_CHANGED_LINES_PRICING`

When this profile option is set to Yes, this would mean send only changed lines to Pricing when a line is changed. Otherwise, send all lines. The default is Yes. (This used to be an internal only profile option.)

OM: Set of Books `OE_SET_OF_BOOKS_ID`

This profile option is no longer used. It has been replaced by entering an operating unit on the Order Management Parameters window that is associated with a default set of books you wish to use.

OM: Set Receivables Transaction Date as Current Date for Non-Shippable lines
`OE_RECEIVABLES_DATE_FOR_NONSHIP_LINES`

This profile option determines if the Oracle Receivables transaction date will be populated with the system date (SYSDATE) for non-shippable order or return lines.

Select from:

- Yes: Populate the Oracle Receivables transaction date for non-shippable order or return lines with the current system date.

- **No:** Do not populate the Oracle Receivables transaction date for non-shippable order or return lines with the current system date. Populate the Oracle Receivables transaction date for non-shippable order or return lines with the corresponding line order date or line return date.

This profile option is optional, and the default is NO.

OM: Show Discount Details on Invoice OE_DISCOUNT_DETAILS_ON_INVOICE

This profile option determines whether the discount details are passed to Oracle Receivables for printing on an invoice. Default value is No.

If you set this profile option to No, then Extended Amounts will includes discounts.

OM: Show Line Details ONT_SHOW_LINE_DETAILS

This profile option determines whether the line details of a model are displayed in the Sales Orders window. You can also toggle the display of line details using the Tools menu from the Sales Orders window.

OM: Source Code ONT_SOURCE_CODE

This profile option identifies the source code that Order Management passes to Oracle Inventory during scheduling. The source code should be defined as the third segment of the Sales Order Flexfield to guarantee that each transaction is unique.

OM: Use Configurator ONT_USE_CONFIGURATOR

This profile option indicates which Oracle application software is launched to enter configuration information when selecting the *Configurator* button from the Sales Order window. Valid values are:

- **Yes:** Use the Oracle Configurator application to enter you configurations via Oracle Configurator user interfaces. Oracle Configurator should be installed and setup if you chose this value. See: Oracle Configurator Installation Guide.
- **No:** Use the Oracle Order Management application to enter your configurations via the Options window

The default for this profile option is *No*.

Note:

- If you set this profile option value to *Yes* and do not have the Oracle Configurator product installed, Order Management automatically displays the Order Management Options window when selecting the Configurator button from the Sales Order Pad.
 - Do not switch the value of this profile option when working with existing orders. For example; If a sales order that contains configurations is created while the profile value is set to *Yes*, do not change your profile option value to *No* and then attempt to update the sales order via the *Configurator* button. Update the configuration information through the same options window as the order was created in, or update via the Sales Order window.
-
-

OM: Under Return Tolerance OM_UNDER_RETURN_TOLERANCE

This profile option indicates the percentage by which a return line can be under-received for it to be considered fulfilled. Any value between zero (0) and 100 (both inclusive) is a valid value. This profile option is set at the site level. Default value is zero (0).

OM: Under Shipment Tolerance OM_UNDER_SHIPMENT_TOLERANCE

This profile option indicates the percentage by which an order line can be under-shipped for it to be considered fulfilled. Any value between zero (0) and 100 (both inclusive) is a valid value. This profile option can be set only at the site level. Default value is zero (0).

For additional information on profile option descriptions and setting for products other than Order Management, please refer to the product specific users guide.

OM: Unit Price Precision Type ONT_UNIT_PRICE_PRECISION_TYPE

This profile option controls the display of Unit Selling Price field for sales order lines only.

Select from:

- Standard: You will see at least two decimal places, up to a total of 20 decimal places.
- Extended: You see at least five decimal places, up to a total of 20 decimal places.

The QP: Unit Price Precision profile controls how many decimal points you can use on a Price List for a rounding factor.

OE: Validate Option Line Item `ONT_VALIDATE_OPTION_LINE_ITEM`

This profile option controls whether customer enabled items are visible in the Options window. The default is Yes and it can be set at the Site or Application level. This will be a non-seeded profile option.

OM: Validate Standard Line Item `ONT_VALIDATE_STANDARD_LINE_ITEM`

This profile option controls whether customer enabled items are visible on the Sales Order line. The default is Yes and it can be set at the Site or Application level. This will be a non-seeded profile option.

OM: View Cancel Lines `ONT_SHOW_CANCEL_LINES`

This profile option controls the default value of the Cancel check box when sorting sales order lines within the Sales Order Lines Tab, Sort window. The default value is Yes. Select from:

- Yes: The Cancel check box will be automatically selected when sorting sales order lines within the Sales Order Lines Tab, Sort window. Cancelled order lines will not be displayed once the sort completes.
- No: The Cancel check box will not be selected when sorting sales order lines within the Sales Order window, Lines Tab sort window. Cancelled order lines will be displayed once the sort completes if you do not manually select the check box.

OM: View Closed Lines `ONT_VIEW_CLOSED_LINES`

This profile option controls the default value of the Closed check box when sorting sales order lines within the Sales Order Lines Tab, Sort window. The default value is Yes. Select from:

- Yes: The Closed check box will be automatically selected when sorting sales order lines within the Sales Order Lines Tab, Sort window. Closed order lines will not be displayed once the sort completes.
- No: The Closed check box will not be selected when sorting sales order lines within the Sales Order window, Lines Tab sort window. Closed order lines will be displayed once the sort completes if you do not manually select the check box.

OM: View Pricing/Availability Information in Related Items

This profile option controls the amount of information shown in the Related Items and Manual Substitutions window. The available options are: Pricing only, Availability only, Pricing and Availability, and None.

Tax: Inventory Item for Freight OE_INVENTORY_ITEM_FOR_FREIGHT

This profile option is used only when the freight item is passed as revenue line. If you set the value of this profile option to *Inventory Item* then the Invoicing module passes this item for freight charges, which will be treated as revenue lines. This profile option can only be set at the Application or Site level.

Tax: Invoice Freight as Revenue OE_INVOICE_FREIGHT_AS_LINE

If the Receivables profile option TAX: Allow Tax Code Override is set to YES, and profile option TAX: Invoice Freight as Revenue is set to YES, then freight charges are treated as revenue lines, and the Invoicing module will pass VAT tax and associated sales credits for processing.

Selected Oracle Application Profile Option Descriptions

(General Ledger) Journals: Display Inverse Rate DISPLAY_INVERSE_RATE

- If the profile option Journal: Display Inverse Rate is set to Yes, then the value entered for the conversion rate field in the Sales Order window should be entered from Base to Foreign currency (user must enter the conversion rate in functional currency to foreign currency).
- If the profile Journals: Display Inverse Rate is set to No, then the value entered for the conversion rate field in the Sales Order window should be entered from Foreign to Base currency (user must enter the conversion rate in foreign currency to functional currency).

Please note, however, that the system will always store the currency rate in Foreign to Base format irrespective of the profile.

For example, suppose the base currency is USD and the foreign currency is CAD.

- If the profile option Journal: Display Inverse Rate is set to Yes, the following message is displayed when the users navigate to the conversion rate field on the Sales Order window:

Please Enter the Rate for USD to CAD.

- If the profile option Journal: Display Inverse Rate is set to No, the following message is displayed when the users navigate to the conversion rate field on the Sales Order window:

Please Enter the Rate for CAD to USD.

(Inventory) INV: Capable to Promise INV_CTP

This profile option determines which planning data store availability checking is performed against when submitting an ATP inquiry. Select from:

- **Enable PL/SQL based ATP with planning output:** This option enables ATP inquiry against the Planning Data Store (PDS) within the Advanced Planning and Scheduling (APS) database. For a PDS ATP inquiry, you can perform Basic ATP, Single-Level Supply Chain ATP, Multilevel Supply Chain ATP. Only supply and demand of the plan selected is considered during an ATP Inquiry in this mode.

When an ATP inquiry is submitted within Order Management, Oracle Global Available To Promise determines which plan within the PDS is used to determine availability. The item instance/organization combination of the inquiry is sent to Oracle Global Available To Promise, enabling plan selection based upon the following:

- **Inactive On:** Within the APS Supply Chain Plan Names window, the Inactive On (date) determines if a plan should be considered as a source for availability data. If the field contains a date, then the date must be prior to the availability check date.
- **Enable ATP Check Box:** Within the APS Supply Chain Plan Names window, the Enable ATP check box determines if a plan should be considered for availability data. The check box must be selected in order for the plan to be considered as a source for availability data.
- **PLAN_ID:** If the item instance/organization combination of the inquiry resides in the PDS for multiple plans not inactive and enabled for ATP, the plan definition with the lowest PLAN_ID is used as the source for availability checking.

For example, Profile Option INV: Capable to promise = ATP/CTP Based upon Planning Output, and you have the following plans within the PDS, with each plan enabling ATP.

- PLAN_ID=100; Inactive on 20-FEB-2003; Item AS54888; Instance/Organization NEW/M1, NEW/V1

- **PLAN_ID=105; Inactive on 20-FEB-2001; Items AS54888; AS544432, Instance/Organization NEW/M1, NEW/M2, NEW/V1**
- **PLAN_ID=202; Inactive on 20-FEB-2005; Item AS54888; Instance/Organization NEW/M1, NEW/M2, NEW/V1**
 - a. When you perform an ATP inquiry for item AS54888 on 18-FEB-2001, while within instance/organization combination NEW/V1, then ATP results displayed are based upon planning data within the PDS for PLAN_ID=100

Item AS54888 is currently defined for instance/organization combination NEW/M1 within the PDS for PLAN_ID=100, PLAN_ID=105, and PLAN_ID=202.

PLAN_ID=100 is active and has the lowest numeric value, so the data within the PDS for PLAN_ID=100 is used to check availability.
 - b. When you perform an ATP Inquiry for item AS54888 on 25-MAR-2002 while within instance/organization combination NEW/M2, then ATP results displayed are based upon planning data for PLAN_ID=202.

Item AS54888 is currently defined for instance/organization combination New/M2 within the PDS for PLAN_ID=105 and PLAN_ID=202

PLAN_ID=105 is the lowest numeric value, but is Inactive as of 20-FEB-2001, so the data within the PDS for PLAN_ID=202 is used to check availability.
- **Enable PL/SQL based ATP without planning output: This option enables ATP inquiry against the Operation Data Store (ODS) within the Advanced Planning and Scheduling (APS) database.**

The ODS consists of all of the data that has been collected, including any incremental refreshes. Data is loaded into the ODS when you submit the APS ATP Data Collections Request Set. For ODS based ATP inquiry, you can currently only perform Basic ATP & Single level Supply Chain ATP. The ATP Rule is used to specify the time fence options and supply and demand sources to use during order promising inquiry.

Operating Unit

In Order Management, the Operating Unit Default parameter indicates the operating that can be used to provide additional defaulting information for processing orders and returns if certain order/line attributes are not entered.

Item Validation Organization

In Order Management, the Item Validation Organization parameter indicates the Oracle Manufacturing organization against which items are validated.

Note: Organization is synonymous with warehouse in Order Management.

You set the Item Validation Organization parameter in the Parameters window, and can only set the value to the operating unit associated with your current sign on responsibility. You must also define all transactable items in this organization.

Note: If you are upgrading from Oracle Order Entry Release 11 to Oracle Order Management Release 11i, the upgrading process automatically sets up the Item Validation Organization system parameter to the current Release 11 values (for each operating unit) for the OE profile option: *OE: Item Validation Organization*.

Note, before setting this parameter, you should first setup values for:

- HR: Security Profile
- HR: Business Group profile options.

Valid inventory master organizations will be available based on values of HRMS profile settings.

For further information on these profiles please refer to Configuring, Reporting and System Administration in *Oracle HRMS Release 11i*, Chapter 3 - Security

Customer Relationships

You can use customer relationships to share ship to and bill to locations among customers.

Audit Trail

You can enable the Audit Trail feature to track order changes as they occur.

To enable Order Management Parameters:

1. Navigate to the Parameters window.

Figure 2–1 Order Management Parameters

Warning: You cannot have any open orders when performing updates to Order Management Parameters. If open orders are found, a warning message displays. Select the *OK* button to ignore the Warning or select the *Cancel* button to not commit changes.

2. Select a value for the Operating Unit.

This value is set based on the current responsibility you are using, and cannot be changed within this window. The operating unit can provide additional defaulting information for processing orders and returns if certain order information is not entered.

3. View the Item Validation Organization for your operating unit.

The Item Validation Organization determines which inventory organization you will validate the your order line items against. Items attributes assist Order Management in determining the selling characteristics of an item and what additional functions are available when you enter sales order lines.

This field contains the value of your Master Inventory Organization.

4. In Customer Relationships field, select one of three options to instruct Oracle Order Management how to validate Bill To, Ship To, and Deliver To customer relationships within the Sales Orders window and when importing orders utilizing Order Import.

Within the Oracle Receivables Standard Customer window, Order Management utilizes both the customer address business purpose (Address Tab) and customer relationship Bill To and Ship To flags (Relationships Tab) for

determining eligible Bill To, Ship To, and Deliver To values when placing orders.

- Single Customer: Bill To, Ship To, and Deliver To customers and customer sites must belong to the Sold To customer without regard to the customer Ship To and Bill To relationship flags.
 - Related Customers: Bill To, Ship To, and Deliver To customers and customer sites may belong to the Sold To customer or any of its related customers.
 - For related customers, customer sites are only eligible as Bill To sites if their respective Bill To relationship flag is enabled. Customer sites are only eligible as Ship To and Deliver To sites if the Ship To relationship flag is enabled.
 - All Customers: Bill To, Ship To, and Deliver To customers and customer sites may belong to any customer, regardless of whether there is a customer relationship between that customer and the Sold To customer and without regard to the relationships Ship To and Bill To flags.
 - Selecting this option and not specifying Bill To and Ship To customers and customer sites may result in long waits for the list of values to display for the Ship To location field.
5. Select a value for the Audit Trail parameter. The Audit Trail parameter determines whether or not you will capture order changes as they occur, and when to begin capturing such changes. Select from:
- Disabled: Order changes will not be captured as they occur, irrespective of the processing constraints defined to capture audited order changes.
 - Enable when order is entered: Once an order has been successfully saved, if any changes occur to order or line attributes that have corresponding enabled audit history processing constraints defined, changes will be captured as they occur.
 - Enable when order is booked: Once an order has been successfully Booked, if any changes occur to order or line attributes that have corresponding enabled audit history processing constraints defined, changes will be captured only after an order has been booked.
6. Save your work.

See: Oracle Order Management Suite Implementation Manual, Release 11i., Overview of Processing Constraints, Defining Processing Constraints, and Order Audit Trail.

See
[Processing Constraints](#)

Customer Relationship Parameter Setting Examples

The table below provides common relationships that can exists between Bill To, Ship To, and Deliver To customers and customer sites. The data within the table will be used to describe how each of the profile option settings control the list of values for available for order data fields when placing an order. It is assumed that all the Sites within the table (W, X, Y, Z) have customer business purposes of Bill To, Ship To, and Deliver To defined.

Table 2–3 Common Relationships Between Bill To, Ship To, and Deliver To

| Customer | Site | Related To Customer | Bill To Relationship Flag | Ship To Relationship Flag |
|----------|------|---------------------|---------------------------|---------------------------|
| A | X | None | Yes | No |
| B | Y | A | Yes | No |
| B | Z | A | No | Yes |
| C | W | None | Yes | No |

If the parameter for Customer Relationships is set to *Single*, using the data within table A, when placing an order for Customer A:

- The eligible Bill To, Ship To, and Deliver To location is Customer A, Site X

If the parameter for Customer Relationships is set to *Related Customers*, using the data within table A, when placing an order for Customer A:

- The eligible Ship To and Deliver To locations are Customer A, Site X and Customer B, Site Z
- The eligible Bill To locations are Customer A, Site X and Customer B, Site Y

When placing an order for Customer A, if the parameter for Customer Relationships is set to *All Customers*, The eligible Bill To, Ship To, and Deliver To locations are all customers and all of their sites, if using the data within table A.

Define Tax Features

Order Management enables you to quote an estimated tax for orders at the time of order entry. The tax estimate can be based on the tax status; address information, and VAT (Value Added Tax) codes assigned to items, ship to sites, and customers. The actual tax value that appears on the customer's invoice in Oracle Receivables may vary.

See: [Overview of Tax](#) and [Setup Steps for Value Added Tax](#), *Oracle Receivables User's Guide*.

Credit Check

Tax amount for each line will be stored on the order line. You can control whether the tax amount is included in credit checking while specifying the credit checking rules.

Multiple Tax Amounts on an Order Line

You can specify a tax group for an order line. You can view multiple taxes applied to an order line at the time of entry and query, or on the acknowledgement and notification of shipment. Oracle Receivables allows each invoice line to be taxed automatically with one or more taxes.

Tax Related Processing Constraints

Through the use of seeded processing constraints, Order Management does not allow a user to:

- Enter/Change Tax Code on Order Line if the profile option Tax: Allow Override of Tax Code is set to NO.
- Enter/Change Tax Handling, Tax Exemption Number and Tax Exemption Reason when the profile option Tax: Allow Override of Customer Exemptions is set to NO.
- Update Tax Exempt Number, Reason, or any other tax related fields once an invoice has been generated.

If your business process allows tax information to be updated after an invoice has been created, you must modify the seeded processing constraints that affect updating tax information.

Tax Calculation

You can calculate tax by selecting a Tax Date to base your tax rates on, choosing the tax the tax schedule, requested, promise, and system dates. You cannot set a value for the Tax Date field within the Sales Order window, but you can decide to change or update the existing seeded Defaulting Rule for Tax Date.

Tax calculation in Order Management can occur at one of the following events:

- Entry
- Booking
- Invoicing

Tax calculation for the above events can only be controlled at the order level (not at the order line level). You specify when to calculate the tax for an entire order when you create Order Types within the Order Management Transaction Types window.

The default value for Tax Calculation Event Code is null. Null Tax Calculation Event is same as Entry. For payment verification purposes (to include tax in the total authorized amount), specify Entry or Booking as your Tax Event.

Note: The Copy Order functionality does not copy tax amounts; tax is recalculated for the new order.

For return orders (referenced or non-referenced returns), tax calculation occurs at the tax event defined for the associated Order Management transaction type. To calculate tax at any time, select *Calculate Tax* from the Actions button menu within the Sales Order or Order Organizer windows.

Tax amounts are displayed:

- Within the Sales Order window, Main Tab. This is value is the current total order tax
- Within the Sales Order Lines window, Pricing tab. This tax value is for each taxable order line

Additionally, tax is always recalculated when tax-dependent attributes change on the order line.

Tax Calculation at Entry

With tax calculation at Entry, tax is calculated as each order line is entered. This ax calculation is used, for example, in businesses that requires the user performing

order entry to view the total of the order, including tax, so it can be quoted to a customer.

To include tax in Commitment Applied Amount, set the tax event to Entry.

Tax Calculation at Booking

When tax calculation occurs at Booking, tax is calculated on each of the booked order lines. This tax calculation option is used, for example, in business that require tax visibility for booked orders, but who want to increase order entry input times by not calculating tax at entry.

Tax Calculation at Invoicing

When tax calculation occurs at Invoicing, no tax calculations will occur within Order Management. Tax calculation will occur in Oracle Receivables when the order or order line is invoiced.

For maximum performance, set Invoicing as the Tax Event.

Inclusive Taxes

When you create your tax codes and tax groups, you can specify that the taxes are *inclusive* taxes (the tax amounts are already included in the price of the item).

When the Tax Engine is called to calculate taxes, it will return inclusive taxes as well as exclusive taxes. Any inclusive taxes returned are not added to the extended amount of the order line or displayed within the Tax column of an order line. Order Management displays the estimated tax amount based on the tax date on the order line. However, inclusive taxes are displayed when you View Tax Details from the Action button menu within the Sales Order Lines window.

You can perform a credit check including or excluding the estimated tax amount.

Tax Method Options

Order Management enables you to specify the tax method for your company or installation as a Oracle Receivables system option. The tax method determines how taxes are calculated. Tax methods include the following:

- **Sales Tax**

For sales tax, taxes are based on different components of the customer's shipping address. Order Management provides you with a default sales tax location flexfield structure composed of the State, County, and City.

- **Value Added Tax (VAT)**

For value added tax, taxes are based on tax rates assigned to user- defined codes. These codes are assigned to specific items, customers, and customers business locations.

Note: Tax codes are used for value added taxes or location-based taxes such as a sales tax).

Tax Security

Order Management enables you to update the tax security information on an order or return by setting the Tax: Allow Override of Customer Exemption profile option. This profile option controls the modification of the Tax Handling Status, Reason & Certificate fields at the order header and order line levels. Standard tax calculations can be overridden by setting the profile option to Yes. The Tax: Allow Override of Tax Code profile option determines whether the defaulted tax code on an order line can be updated.

Non-Taxable Transaction Types

Order Management enables you to define whether Oracle Receivables will automatically calculate taxes for a given OM order line type. You will need to associate a Receivables Transaction Type with the OM Transaction Type for this to occur.

This will determine if tax is required on an order. This option (tax calculation flag) is set in Oracle Receivables. You can specify whether a transaction type is taxable in the Receivables Transaction Types window. See: [Transaction Types](#), Oracle Receivables User's Guide.

See

Oracle Receivables User's Guide:

[Overview of Tax](#)

[Setup Steps for Value Added Tax](#)

[Tax Codes and Rates](#)

[Tax Groups](#)

[Tax Exemptions](#)

Define QuickCodes

You can create QuickCodes for Order Management. QuickCode types that you can define include:

- Cancellation Codes
- Credit Cards
- Freight Terms
- Hold Types
- Note Usage Formats
- Release Reasons
- Sales Channels
- Shipment Priorities

You can create as many quickcodes as you need. You can also inactivate QuickCodes.

To define quickcodes:

1. Navigate to the Oracle Order Management Lookups window.

Figure 2–2 Order Management Lookups

| Code | Meaning | Description | Tag | From | To | Enabled |
|------------|---------------------|--------------------------|-----|------|----|-------------------------------------|
| COLLECT | Collect | Buyer arranges for the | | | | <input checked="" type="checkbox"/> |
| DUECOST | Prepay & Add with c | Seller pays for the frei | | | | <input checked="" type="checkbox"/> |
| DUE | Prepay & Add | Seller pays for the frei | | | | <input checked="" type="checkbox"/> |
| PAID | Prepaid | Seller pays for the frei | | | | <input checked="" type="checkbox"/> |
| TBD | To Be Determined | To be determined | | | | <input checked="" type="checkbox"/> |
| THIRD_PART | Third Party Billing | Buyer pays third party | | | | <input checked="" type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |

2. Query the Lookup Code Type.
3. Enter a User Name.
4. Select the Application you want to use to define QuickCodes.

Note: The Access Level toggles display whether you can define new Lookup Codes. You can modify User and Extensible Lookup Codes, however, system code cannot be modified. Contact your system administrator.

5. Enter a description of the code.
6. Select an access level.
7. Optionally, enter the effective dates for the Lookup Code.
8. Check Enabled to activate the Lookup Code.
9. To inactivate the Lookup Code, deselect the Enabled check box.
10. Save your work.

See

[Lookups - Defining Receivables Lookups](#), *Oracle Receivables User's Guide*.

Defining Freight and Special Charge Types

Order Management enables you to charge for freight and special charges to meet your business needs. The full charge to your customer is visible at the time of order entry and can be communicated to the customer. The freight and special charge amounts can be estimated or final. The actual costs incurred are captured at Ship Confirmation and can be converted to charges based on freight terms and other rules you define. Freight and Special Charges are created and enabled using pricing Modifiers.

Order Management captures the freight and special charges information and Shipping Execution captures all costs incurred on the shipment of goods. Once ship confirmation completes, the costs are transferred to Order Management and may be used to convert the costs into charges. You can set up your different freight costs in Shipping Execution.

Order Management's freight and special charge feature enables you to:

- Capture the charges at the time of order entry
- Change the freight and special charges until invoicing
- Capture the freight and special charge information at any point in the order flow
- Create various freight and special charge types
- Support charges at various levels (order and line)
- Specify the controls for refunds

Freight Terms

You can choose the freight terms for an order line depending on the Customer Contracts (agreements), Customer, Ship To, and Ship-From locations. Freight Terms can be used as Qualifiers to apply freight & special charges, although no such functionality is seeded with the application. Freight terms can include the following:

Prepaid You (the shipper) take responsibility for paying the freight costs. The costs are recorded in Shipping Execution.

Prepay and add with fixed charges You can prepay the freight costs and charge your customer a fixed amount. The costs are recorded in Shipping Execution and transferred to Order Management.

Prepay and add with cost converted to charge You can prepay the freight costs and pass it on to your customer as a charge with a markup or markdown or a direct pass through. The costs are recorded in Shipping Execution and transferred to Order Management.

A pricing formula and pricing modifier are used to calculate the markup/markdown and apply the charge to the customer invoice.

Collect The freight carrier bills the customer directly; not you. The costs are not recorded in Shipping Execution or Order Management.

Third Party Billing The freight carrier bills a third party, not the seller or buyer. The costs are not recorded in Shipping Execution or Order Management.

Freight and Special Charge Types

Order Management provides you with the ability to setup and capture different charge types and sub type including (but not limited to):

- Duty
- Handling
- Insurance
- Export
- Freight
- Administration
- Miscellaneous

Grouping of Freight and Special Charges

You can setup different sub-types under a give charge type, such as, if the freight or special charge type is Miscellaneous, you can group the following different charges:

- Late penalty charges
- Restocking charges
- Negotiations and legal fees
- Foreign agent commissions

The following Charge Types and sub-types have been predefined by Oracle Advanced Pricing under the Oracle Shipping Execution lookup for FREIGHT_COST_TYPE:

- Insurance
- Export
- Duty
- Freight
- Administration
- Handling

Order Management shares these Freight Cost Types with Shipping Execution for the COST to CHARGE conversion.

Note: You cannot define sub-types for the Shipping Execution Charge Types lookups.

Additionally, you can only receive cost to charge conversions for auto configured items.

Additionally, Oracle Advanced Pricing has its own lookup type, also called FREIGHT_CHARGES_TYPE. You are allowed to add charge types codes to the Advanced Pricing lookup FREIGHT_CHARGES_TYPE. The following charge type code is predefined for this lookup:

- **Miscellaneous**

You can define sub-types for the Oracle Advanced Pricing Charge Type Code of FREIGHT_CHARGES_TYPE. The following sub-types are predefined for the Advanced Pricing FREIGHT CHARGE TYPE = Miscellaneous:

- **Penalty**
- **Restocking**
- **Return Fees**

Definition Data Elements

You can define different attributes for setting your charges including the following elements:

- **Charge Currency:** The currency for the Charge amount setup at list level
- **Charge Name:** Charge Name picked from the pre-defined setup in pricing
- **Level:** Order Level or Line level charges
- **Calculation Method:** Percentage (%), Amt (Per pricing unit), Lumpsum amount Formula based
- **Refundable:** Whether the charge is refundable
- **Automatic:** Whether the charge is automatic or manual
- **Overridable:** Whether the charge is overridable after it is applied
- **Start/End Dates:** Active date range
- **Qualifiers:** Qualifiers to apply charges conditionally

Calculation Method

Various common methods of calculating charges are supported. Examples of calculation methods include:

- Fixed amount
- Percentage of line or order amount
- Fixed rate per pricing unit of measure
- Simple pass of a cost
- Percentage markup or markdown of a cost
- User-defined formula for a given charge type. The formula can be constructed using the pricing attributes, constant values, or function returning a value.

Qualifier /Pricing Attributes for Freight and Special charges

The tables indicate both Qualifier Attributes and Pricing Attributes that have been predefined for Freight and Special Charges.

Note: You can also make use of any other Qualifier / Pricing Attributes setup in the Pricing for freight and special charges

Table 2–4 Freight and Special Charges Qualifier Attributes

| Context | Attribute |
|---------|------------------------|
| ORDER | SHIPPABLE_FLAG |
| ORDER | SHIPPED_FLAG |
| ORDER | FREIGHT_COST_TYPE_CODE |
| VOLUME | LINE_WEIGHT |
| VOLUME | LINE_VOLUME |

Table 2–5 Freight and Special Charges Pricing Attributes

| Context | Attribute |
|--------------------|----------------|
| PRICING ATTRIBUTES | INSURANCE_COST |
| PRICING ATTRIBUTES | HANDLING_COST |

| Context | Attribute |
|--------------------|---------------------|
| PRICING ATTRIBUTES | DUTY_COST |
| PRICING ATTRIBUTES | EXPORT_COST |
| PRICING ATTRIBUTES | FREIGHT_COST |
| PRICING ATTRIBUTES | ADMINISTRATIVE_COST |

For more information on Freight and Special Charges using qualifiers within Order Management, Oracle Order Management Suite Implementation Manual, Release 11i., Freight and Special Charges Examples.

Application of Charges

You can have freight and special charges applied to an order in the following ways:

- Manually Applied
- Open Interface
- Automatically based on the qualifier setup

Note: Any freight charge modifier's you wish to define for ATO configuration items should use a phase that is included in the Order Management workflow 'SHIP' event.

Order or Order Line Charges

You can enter charges for order or order line levels. The Freight and Special Charges are returned by the Pricing Engine and if there are multiple automatic charges of same charge type and subtype then Order Management applies the one with Maximum amount. If the user wants the charge to be applied in preference then they may need to set them up with incompatibility group and precedence as described in the Modifier Setup section.

Note: If there is an applied charge of a Charge Type/Subtype then the LOV for Charge Name field in Charges window will not show any manual charges for the same type/subtype. The Charge Name is always derived from the meaning for the charge sub-type lookup code. If the charge sub-type is NULL then the name is derived from the meaning for the charge type lookup code

Estimate or Actual

The estimated or fixed charge is displayed in the Charges user interface. You can set the amount as Estimated or Fixed.

Note: You can set estimated or fixed charges only after a charge has been applied on an order or order line.

Multiple Unlimited Charges

You can enter an unlimited number of charges at each level with unique combination of Charge Type and Charge Sub-Type.

Timing of Charges Entry

You can enter freight and special charges at any event point or activity, up to the point where the order and line is invoiced. At the point of invoicing the charge will be fixed and no more charges can be added after the line is invoiced.

Changing and Deleting of Charges

Based on your processing constraints, you have the ability to manually change the amount, delete, or cancel charges applied to an order or order line until invoicing. You can enter a reason code if the charge is being changed, however, the history will not be maintained. In addition, you can add processing constraints to prevent charges from deletion or cancellation after a user-definable point in the order's process.

Freight Charges and Included Items

In order to apply any eligible freight charges for an Included Item, the profile option OM: Charges for Included Item should be set to Y.

When this profile option is set to Y, and the calculate price flag of the order line with an included item is either Calculate Price (Y) or Partial Price (P), then the eligible freight charges are applied to the order line.

For backordered lines within Included Items, both the profile options OM: Charges for backorders and OM: Charges for Included Item need to be set to Y to view and apply any freight charges.

Any freight charge modifiers you define for included item should be within a pricing phase that is included within the Order Management 'LINE' or 'SHIP' workflow event.

Freight charges for Backordered Lines

The Order Management profile option *OM: Charges for backorders* controls how the system will set the value of the calculate price flag for backordered lines.

- If the profile option is set to Y, the system will set the calculate price flag to P and freight charges are calculated for backorder lines
- If the profile option is set to N, the system will set the calculate price flag to 'N' and freight charges are not calculated for backorder lines

Rounding of Freight charges

The Oracle Advanced Pricing profile option *QP: Selling Price Rounding Options* determines if your freight charges are rounded. See: Oracle Advance Pricing Implementation Guide, Profile Options.

To define Order Management Freight Cost Type Names:

1. Navigate to the Oracle Order Management Freight Cost Types window.

Figure 2–3 Order Management Freight Cost Types Window

| Name | Type | Currency | Amount | From | To | Map to Charge |
|--------------------|---------------------|----------|--------|------------|----|-------------------------------------|
| Duty Fee | Duty Fees | CAD | 120.00 | 02-26-2001 | | <input checked="" type="checkbox"/> |
| Document Fee | Administration Fees | USD | 15.00 | 02-26-2001 | | <input checked="" type="checkbox"/> |
| Special Handling | Freight Costs | USD | 25.00 | 03-21-2001 | | <input checked="" type="checkbox"/> |
| Hazardous Handling | Handling Costs | AUD | 26.00 | 03-21-2001 | | <input type="checkbox"/> |
| Handling Costs | Handling Costs | USD | 20.00 | 06-14-2001 | | <input checked="" type="checkbox"/> |
| Freight Costs | Freight Costs | USD | 50.00 | 06-14-2001 | | <input checked="" type="checkbox"/> |
| Insurance Costs | Insurance | USD | 25.00 | 06-14-2001 | | <input checked="" type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |

Description:

2. Enter a name for your Freight Cost type in the *Name* field.

The value entered in this field is the value a Shipping Clerk will see on within the Oracle Shipping Execution Transactions window when entering Freight Costs during the shipping process.

3. Choose a type for your Freight Cost Name from the LOV in the *Type* field.
4. Select a currency that the Freight Cost Type will use in the *Currency* field.
5. Enter the default value for your Freight Cost Type in the *Amount* field. The amount will be defaulted in the Freight Cost window when you enter or select the Freight Cost Name during the shipping process.
6. Enter effective dates for you Freight Cost Name in the *Effective Date From/To* fields.
7. Save your work.

Setup for Integration with Transportation for Freight Rating

If you plan to use the new Integration with Transportation for Freight Rating feature, then complete the following steps.

1. In Order Management System Parameters form, the Freight Rating feature has to be enabled.
2. In Pricing, Formulas and Modifiers need to be setup to convert freight costs returned by Transportation (FTE) to Charges.
3. In Transportation, Lanes and Rates need to be setup for the Ship Method used in the order.

To define Order Pricing or Shipping Execution Freight Charge lookups:

Attention: Freight and Special charges setup shares a two different lookups. One lookup is from the Oracle Pricing window and the other is from the Shipping Execution window. The lookup type for Oracle Pricing is *FREIGHT_CHARGES_TYPE* and should be used to define freight charges which are *not shipping related*.

The lookup type from Shipping Execution is *FREIGHT_COST_TYPE* and it should be used to define Freight Costs *that are captured in Shipping*. Ensure that the lookup_codes defined for these two types should be unique in terms of lookup_code and the meaning.

As discussed previously in this section, the meaning is used to display names for freight and special charges.

1. Navigate to the Oracle Pricing / Oracle Shipping Lookups window.

Figure 2-4 Oracle Pricing Lookups Window

| Code | Meaning | Description | Tag | From | To | Enabled |
|------------|----------------------|-------------|-----|-------------|----|-------------------------------------|
| MISCELLANE | Miscellaneous Charge | | | 27-DEC-2001 | | <input checked="" type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |

2. Query for Pricing / Shipping lookup = *FREIGHT_CHARGES_TYPE* / *FREIGHT_COST_TYPE* respectively.

3. Enter a name for your Pricing or Shipping freight charge lookup in the *Code* field.
4. Enter a meaning that will appear in the List of Values when defining a freight charge within the Modifiers window.

For example, the Lookup type Print has a code of Y, and a value Yes in the Meaning field. When you select the LOV for the Print lookup code, you will see Yes as opposed to Y.
5. Enter a description for your Pricing or Shipping freight charge lookup.
6. Optionally, enter a value in the Tag field to describe your lookup. Tags are used to make Lookups visible within web-based applications such as Oracle iReceivables.
7. Enter effectivity dates for your lookup in the Effective Date From/To fields.
8. Select the Enable check box to enable you Pricing or Shipping freight charge lookup to be selected when entering an order line.
9. Save your work.
 - a. To define a new sub-type for Pricing FREIGHT_CHARGES_TYPE, create a new Pricing Lookup where lookup_type = <lookup_code previous defined> This becomes a Type for all sub-type codes.

See: Oracle Order Management Suite Implementation Manual, Release 11*i*, Freight and Special Charges Examples.

Sales Orders window

You can setup Charges to apply automatically when a new order or order line is entered. The charges are displayed in Charges user interface accessible from Sales Orders window.

Viewing and Applying Freight and Special Charges

Freight and special charges can be viewed from within the Sales Order window, provided the profile option OM:Charging Privilege has been properly set.

- To view Order level charges, navigate to the Sales Order Header window, select Actions, then select Charges.
- To view Order Lines charges, navigate to the Sales Order Lines window, select Actions, then select Charges.

Figure 2–5 Order Management Charges Window

The screenshot shows a window titled "{Charges } (Vision Operations) - Order(1006)". It contains a table with the following columns: {Charge Name #}, {Type ###}, {Rate (%) }, {Amt / Unit }, {Charge #}, {Fixed #}, {Auto #}, and {Overridab}. The first row is populated with "Insurance", "INSURAN", an empty rate field, "25d99", "25d99", and three checkboxes (Fixed, Auto, Overridable) which are all checked. Below the table is a scroll bar and a summary row showing "{Charge Total #}" as "25d99".

| {Charge Name #} | {Type ###} | {Rate (%) } | {Amt / Unit } | {Charge #} | {Fixed #} | {Auto #} | {Overridab} |
|-----------------|------------|-------------|---------------|------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Insurance | INSURAN | | 25d99 | 25d99 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

{Charge Total #} 25d99

Field Information for Charges window

- Charge Name: The charge name for the charge.
- Type: The charge type code for Freight Charge
- Rate: The rate percentage specified in the setup of the Freight Charge
- Amt/Unit: If the charge is setup as AMT, then this field contains the amount per pricing unit
- Charge: The applicable charge amount in the Order currency
- Fixed: This check box can be used to mark the charge as Fixed so that the charge is not overridden by the Pricing Engine or any cost conversion programs
- Auto: This check box indicates whether the charge is automatic or manual. Automatic charges are applied directly by the Pricing Engine
- Overridable: This check box indicates whether the charge is overridable by the user. Unless the user has unlimited privileges, no changes are allowed on charges with this box unchecked, although a user can mark or un-mark the charge as fixed or estimated

- **Refundable:** This check box indicates whether the charge is refundable or not
- **Invoiced:** This check box will indicate whether the charge is invoiced or not. Invoiced charges are non-modifiable
- **Reason:** If any change is made to the charge, the user will need to specify the reason for the change.
- **Comments:** Optional field for entering the comments on the charge

You are allowed to change a Charge as a Credit within the Charges window by changing the integer sign for a value within either the Rate, Percent, Amt/Unit, or Charge Amount fields, provided the charge you are modifying is overridable.

Charge Types which have been defined as Automatic are applied to an order or order line. If multiple charges (automatic charges only) of the same type/subtype are returned by the Pricing Engine, then the charge with highest amount will be applied to the order or line.

Manual Charges are available for use on order or order lines through the Charges window. The LOV for the Charge Name field displays available manual charges only.

- When navigating to the Charges window, if there currently is an applied charge of a type/subtype appearing, then the LOV for the Charge Name field will not show a charge of the same type/subtype.
- If there are no manual charges setup in Pricing, then the Charge Name field LOV returns no records.

Note: If the profile option OM: Charging Privilege is set to UNLIMITED, then you can update manual non-overridable charges.

However, if you choose to update manual non-overridable charges, the update must be performed manually; manual non-overridable charges are never altered by the system, even if the order undergoes repricing.

Returns

The user will be allowed to set Freight Charges for return lines using the Line Category/Line Type as the Qualifier Attributes.

- These Freight charges can be a charge or credit to the customer

- These charges can be setup using a Qualifier of Freight Terms defined on the return line
- The Freight Term will be either defaulted or copied from the referenced line
- User may change the (Defaulted/Referenced) Freight Term, depending upon the contract he has with the Customer, for the Freight on return
- If the Return Line is referenced from any existing Order Line, the refundable freight charges associated with the referenced order, will be available as a credit to the user
- If the user creates a new Return line without a reference to any existing line, then the user will have to manually apply any Refundable Freight Charges on it

Copying Charges

The copy order functionality in Oracle Order Management supports the following pricing options for standard copying of orders and returns:

Copy for Orders

Retain Original Pricing: Retains manual, automatic price adjustments, and charges. The `CALCULATE_PRICE_FLAG` is set to Freeze Price.

Re-price based on user-defined date: Manual adjustments and charges will be recalculated. The `CALCULATE_PRICE_FLAG` is set to Calculate Price.

Copy for Returns

Retain original pricing: Retains the refundable manual and automatic charges. The `CALCULATE_PRICE_FLAG` will be set to Partial. The `CALCULATE_PRICE_FLAG` is set to Partial in order for any manual charges, such as the return and restocking fees can be added to the order.

Re-price based on user-defined date: Retains the refundable manual and automatic charges. The charges are marked as Fixed so that they cannot be overridden by subsequent re-pricing requests. The `CALCULATE_PRICE_FLAG` is set to Calculate Price.

Invoicing

A line level charge is invoiced with the invoicing order line. All order and order line level charges are invoiced with the first invoicing order line. If any new charges are added at the order header level, then the charges are invoiced with the next invoicing order line.

See

[Orders](#)

[Invoicing](#)

[Returns](#)

[Order Import](#)

Viewing Notifications

Single Notification Viewer

You can use a single mechanism for receiving all of your notifications, as opposed to different review facilities for different types of messages. This viewer is provided with Oracle Workflow.

Customizable Notification Viewer

You can review notifications and take the appropriate action to resolve each one quickly and easily. You can define selection and sorting criteria that let you manage your notification list so you see the most critical notifications first or can view different types of notifications on demand.

Notification Context

Given this universal Inbox of exceptions, you can see the context of each notification. For notifications where you need no additional information, you can choose a button to take the suitable action.

If you require additional information, you can open the appropriate Order Management window. For example, if you must approve or reject an order, you can view the order header and lines easily. The notification can either be a URL message or an attachment.

See: Using Oracle Workflow in Oracle Order Management, Release 11i.

Defining Document Sequences for Order Numbering

Order Management uses AOL Document Sequence functionality for order numbering. You can define document sequences that automatically generate numbers for your orders and returns as you enter them. You can define a single document sequence to assign unique consecutive numbers to all your orders and returns, or you can define multiple document sequences that are assigned to

different order types. In the latter case, an order or return is uniquely identified by its type and its number, since orders and returns of different types may share numbers. Order and return numbers cannot contain alphabetic characters.

Gapless Order Number Source

Many countries have legal and audit requirements for order numbers to be contiguous. You can set up a document sequences as gapless through the Define Documents Sequences window. In addition, Order Management prevents deletion of orders that have been numbered using the gapless numbering sequence. The application uses locks to ensure gapless numbering. If you are using gapless sequences, please save your changes frequently to minimize lock contention issues.

Manual Order Numbers

Order Management enables you to enter the order numbers for certain types of orders. You can define a document sequence as manual and assign it to a desired order type. This order type can be used on orders that you want to manually enter order numbers. When an order number is specified for such an order, Order Management validates that it is unique for a given order type.

Prerequisites

- Set the profile option Sequential Numbering to Always Used at the Order Management Application level.
- Set your document sequences to Automatic, Gapless, or Manual.

To define document sequences for order numbering:

1. Navigate to the Document Sequences window.

Figure 2–6 Order Management Document Sequences Window

| Name | Application | From | To | Type | Message | Initial Value [] |
|----------------|-----------------------|-------------|----|-----------|-------------------------------------|-------------------|
| AP EFT-maksu | Oracle Payables | 01-JAN-1998 | | Automatic | <input type="checkbox"/> | 1 .. |
| AP lasku | Oracle Payables | 01-JAN-1998 | | Gapless | <input checked="" type="checkbox"/> | 980001 .. |
| AP maksu | Oracle Payables | 01-JAN-1998 | | Automatic | <input type="checkbox"/> | 982001 .. |
| AP-GL | Oracle General Ledger | 01-JAN-2000 | | Automatic | <input type="checkbox"/> | 1 .. |
| APST documsec | Oracle Payables | 01-JAN-1999 | | Automatic | <input type="checkbox"/> | 555 te |
| AP_AJ_PREPAY | Oracle Payables | 01-APR-1999 | | Automatic | <input checked="" type="checkbox"/> | 5000 .. |
| AP_BE_Standar | Oracle Payables | 07-FEB-1998 | | Automatic | <input checked="" type="checkbox"/> | 200 .. |
| AP_CONTRA | Oracle Payables | 01-JAN-1990 | | Automatic | <input type="checkbox"/> | 1 a.. |
| AP_CheckPaym | Oracle Payables | 01-JAN-1998 | | Automatic | <input checked="" type="checkbox"/> | 1 .. |
| AP_ClearingPay | Oracle Payables | 01-JAN-1998 | | Automatic | <input checked="" type="checkbox"/> | 1 .. |

2. You can define the sequence to be Automatic, Gapless or Manual.
 - Automatic sequences: The system will automatically increment document numbers. Automatic sequences *do not* guarantee contiguous numbering.
 - Gapless sequences: The system guarantees that the numbers returned are contiguous.
 - Manual: User must specify a unique document number.

For all types of numbering, the Order Management system validates that the number specified by you is unique for a given order type.

For more information on AOL Document Sequences, see System Administrator's User's Guide, [Document Sequencing](#).

3. Enter a name for the document sequence.
Specify Oracle Order Management as the Application.
4. Enter a starting number.
5. Optionally, enter effective dates for the document sequence.

6. Save your work.

Note: When Order Types are defined, a corresponding Document Sequence Category will automatically be created. The category created has the same name as the order type. You must navigate to the AOL Assign Document Sequence window to assign a sequence to the newly created category. If the Document Descriptive Flexfield is enabled, you need to specify the governing Set of Books. The Document Method code should be left blank.

See
[Profile Options](#)

Define Order Management Transaction Types

Overview

In prior releases of Oracle Order Entry, Order Types were used for defaulting information on orders, establishing processing controls such as invoicing, and most importantly, determining the Order Cycle that an order would have. Order Cycles, in turn, controlled the processing flow of an order.

With the release of Oracle Order Management 11*i*, Order Cycles have been replaced by Oracle Order Management Workflow definitions, and Order Types have been replaced by Order Management Transaction Types. Order Management provides seeded Workflow process definitions for both orders and lines, and Order Management also enables you to define both order header and Order Line transaction types.

Note: Order Management provides NO seeded transaction types. For existing Oracle Order Entry customers, Order Management will update existing Order Types to order and line transaction types during the upgrade process

Order Management Transaction types:

- Determine the workflow processes executed for both the order and line
- Can act as sources for order and line level attribute defaulting

- Can establish order or line level processing constraints
- Can default from the Customer, Ship To, Bill To, or Deliver-To site at the order header, and line transaction types can default from the order transaction type
- Enable you to group orders and lines
- Can specific processing controls for an order or line based upon the transaction type entered

For example, the Scheduling level controls the way scheduling works at the time of order entry for lines.

Prerequisites

- Review seeded order and line flows.
- Define all lookups.
- Define freight carriers. See: *Oracle Shipping Execution User's Guide*.
- Define organizations.
- Define document sequences.
- Define defaulting rules. See [Order Management Defaulting Rules](#)
- Define price lists. See [Basic Pricing Setup](#)
Define credit check rules. See [Credit Cards and iPayment](#)
- Define currencies and currency types. See: [Defining Currencies](#), *Oracle Applications System Administrator's Guide*.
- Set up your cost of goods sold account flexfield segments. See: [Defining Key Flexfield Segments](#), *Oracle Applications Flexfields Guide*.

Note: You must first define your OM Line Transaction Types so that they can be assigned when defining your OM Order transaction types.

Order and Line Level Controls

You can define order controls that apply to the order as a whole and are not overridable at the line level. For example, order numbering is controlled at the order level. An order can be numbered differently based on the order type, such as an order or return.

You can also define line controls that affect the line type level. You can set up certain controls that default from the order level and can be overridden at the line level. For example, you can have both return and order lines on a single order, however, the return and order lines process differently. The individual line processing is controlled at a higher line type level. You need to specify the workflow couplings for the permitted transaction type combinations. If a combination has notifications or workflow activities at the header flow which need to be completed before the line can proceed, then the header flow needs to have a Continue-flow activity. The line flow needs to have the appropriate Wait-for-flow activity.

The following table displays the various column controls that are available for Order Management Order transaction types.

Table 2–6 Column Controls Available for Order Management Transaction Types

| Column Name | Purpose | Define for Order Transaction Types | Required on Order Transaction Types | Defaulting Source for Header |
|-------------------------------|---|------------------------------------|-------------------------------------|------------------------------|
| NAME | Unique within the table for a given language. | Yes | Yes | No |
| TRANSACTION_TYPE_CODE | Distinguishes between order and line types. Line types are Order and Line. | Yes | Yes | No |
| ORDER_CATEGORY_CODE | Defaulting on the order or line. Restricts the types of lines on an Order. Mixed, Order, or Return. Line types are Order or Return. | Yes | Yes | Yes |
| CURRENCY_CODE | Defaulting source. | Yes | No | Yes |
| CONVERSION_TYPE_CODE | Defaulting source. | Yes | No | Yes |
| CUST_TRX_TYPE_ID | Invoicing Interface./Tax | Yes | No | No |
| COST_OF_GOODS_SOLD_ACCOUNT | Invoicing Interface | Yes | No | No |
| ENTRY_CREDIT_CHECK_RULE_ID | Credit checking. | Yes | No | No |
| SHIPPING_CREDIT_CHECK_RULE_ID | Credit checking. | Yes | No | No |

| Column Name | Purpose | Define for Order Transaction Types | Required on Order Transaction Types | Defaulting Source for Header |
|------------------------------|---|------------------------------------|-------------------------------------|------------------------------|
| PRICE_LIST_ID | Defaulting source | Yes | No | Yes |
| ENFORCE_LINE_PRICES_FLAG | Used for validating discount application on order and lines | Yes | Yes | No |
| WAREHOUSE_ID | Defaulting source. | Yes | No | Yes |
| DEMAND_CLASS_CODE | Defaulting source. | Yes | No | Yes |
| SHIPMENT_PRIORITY_CODE | Defaulting source. | Yes | No | Yes |
| SHIPPING_METHOD_CODE | Defaulting source. | Yes | No | Yes |
| FREIGHT_TERMS_CODE | Defaulting source. | Yes | No | Yes |
| FOB_POINT_CODE | Defaulting source. | Yes | No | Yes |
| SHIP_SOURCE_TYPE_CODE | Defaulting source. The values are Internal, External. | No | No | No |
| AUTO_SCHEDULE_FLAG | Used by Scheduling. The values are Yes, No. | Yes | No | No |
| SCHEDULING_LEVEL_CODE | Used by Scheduling. The values are 0, 1, 2. | Yes | No | No |
| AGREEMENT_TYPE_CODE | Validation at header level. | Yes | No | No |
| AGREEMENT_REQUIRED_FLAG | Validation on Header. | Yes | Yes | No |
| PO_REQUIRED_FLAG | Validation at header level. | Yes | Yes | No |
| INVOICING_RULE_ID | Defaulting source. | Yes | No | Yes |
| INVOICING_CREDIT_METHOD_CODE | Defaulting source. | Yes | No | Yes |
| ACCOUNTING_RULE_ID | Defaulting source. | Yes | No | Yes |

| Column Name | Purpose | Define for Order Transaction Types | Required on Order Transaction Types | Defaulting Source for Header |
|--------------------------------|--|------------------------------------|-------------------------------------|------------------------------|
| ACCOUNTING_CREDIT_METHOD_CODE | Defaulting source. | Yes | No | Yes |
| INVOICE_SOURCE_ID | Invoicing Interface. | Yes | No | No |
| NON_DELIVERY_INVOICE_SOURCE_ID | Invoicing Interface. | Yes | No | No |
| DEFAULT_INBOUND_LINE_TYPE_ID | Defaulting source for inbound lines. Use this value as Source for defaulting Line type on Line. | Yes | No | No |
| DEFAULT_OUTBOUND_LINE_TYPE_ID | Defaulting source for outbound lines. Use this value as Source for defaulting Line type on Line. | Yes | No | No |

Note: The transaction type name for the base language cannot be changed once there are orders or lines referenced.

Order Category

You can specify an order category on the order transaction type. The category code controls the types of lines which are permitted on the order.

The order category can be defined as Order, Return, or Mixed. If the category code is Order, then the order can only have outbound lines. If the category code is Return, then the order can only have inbound lines. If the category code is Mixed, then the order can have inbound and/or outbound lines.

Order Numbering

Define your order numbering options using the Oracle Application Object Library (AOL) Document Sequence functionary. You can set up various OM order transaction types and different document sequences. Both OM transaction types and document sequences can control which types of orders are numbered automatically or manually.

For example, you can have all your outbound orders numbered in a certain sequence and all your returns in a different sequence. When an OM order transaction type is created, a document category with the same name is automatically created. You can define sequences and assign them to the respective document category.

See

[Defining Document Sequences for Order Numbering](#)

Order Management Line Transaction Types

Order Management line transaction types can be defined to control order line information. There are specific controls that need to be definable at the line type level. Some controls can be such that, they default from the order level, but can be overridden at the line level. For example, you can have both order and return lines on a single order. However, order and return lines go through different types of processing. The kind of processing that an individual line undergoes is controllable at a line type level.

The following table displays the various column controls that are available for Order Management Line transaction types.

Table 2–7 Column Controls Available for Order Management Line Transaction Types

| Column | Purpose | Usable on Line Type | Required for Line Type | Defaulting source for Line |
|-----------------------|--|---------------------|------------------------|----------------------------|
| NAME | Unique within the table for a given language. | Yes | Yes | |
| TRANSACTION_TYPE_CODE | Distinguish between order and line types. Valid values for Line types: <i>Order/Line</i> . | Yes | Yes | No |
| ORDER_CATEGORY_CODE | Defaulting for order or line; If used on Order Type, restricts line types. Valid values for Line Types: <i>Order/Return</i> | Yes | Yes | Yes |
| CURRENCY_CODE | Defaulting Source | No | No | No |
| CONVERSION_TYPE_CODE | Defaulting Source | No | No | No |
| CUST_TRX_TYPE_ID | Used by Invoicing | Yes | No | No |

| Column | Purpose | Usable on Line Type | Required for Line Type | Defaulting source for Line |
|-------------------------------|---|---------------------|------------------------|----------------------------|
| COST_OF_GOODS_SOLD_ACCOUNT | Used by Inventory Interface | No | No | No |
| ENTRY_CREDIT_CHECK_RULE_ID | Used by Credit Checking | No | No | No |
| SHIPPING_CREDIT_CHECK_RULE_ID | Used by Credit Checking | No | No | No |
| PRICE_LIST_ID | Defaulting Source | Yes | No | Yes |
| ENFORCE_LINE_PRICES_FLAG | Used for validating discount application on Order/Lines | No | No | No |
| WAREHOUSE_ID | Defaulting source | Yes | No | Yes |
| DEMAND_CLASS_CODE | Defaulting source | Yes | No | Yes |
| SHIPMENT_PRIORITY_CODE | Defaulting source | Yes | No | Yes |
| SHIPPING_METHOD_CODE | Defaulting source | Yes | No | Yes |
| FREIGHT_TERMS_CODE | Defaulting source | Yes | No | Yes |
| FOB_POINT_CODE | Defaulting source | Yes | No | Yes |
| SHIP_SOURCE_TYPE_CODE | Defaulting source. Valid values: <i>Internal/External</i> | Yes | No | Yes |
| AUTO_SCHEDULE_FLAG | Used by Scheduling. Valid values: <i>Yes/No</i> | No | No | No |
| SCHEDULING_LEVEL_CODE | Used by Scheduling. Valid values: <i>ONE, TWO, THREE</i> | Yes | No | No |
| AGREEMENT_TYPE_CODE | Validation on Header | No | No | No |
| AGREEMENT_REQUIRED_FLAG | Validation on Header | No | No | No |
| PO_REQUIRED_FLAG | Validation on Header | No | No | No |
| INVOICING_RULE_ID | Defaulting source | Yes | No | Yes |
| INVOICING_CREDIT_METHOD_CODE | Defaulting Source | Yes | No | Yes |
| ACCOUNTING_RULE_ID | Defaulting source | Yes | No | Yes |

| Column | Purpose | Usable on Line Type | Required for Line Type | Defaulting source for Line |
|--------------------------------|---|---------------------|------------------------|----------------------------|
| ACCOUNTING_CREDIT_METHOD_CODE | Defaulting Source | Yes | No | Yes |
| INVOICE_SOURCE_ID | Used by Invoicing | Yes | No | No |
| NON_DELIVERY_INVOICE_SOURCE_ID | Used by Invoicing | Yes | No | No |
| DEFAULT_INBOUND_LINE_TYPE_ID | Defaulting source for Inbound Lines. Use this value as Source for defaulting Line type on Line | No | No | Yes |
| DEFAULT_OUTBOUND_LINE_TYPE_ID | Defaulting Source for Outbound Lines. Use this value as Source for defaulting Line type on Line | No | No | Yes |

When you define OM line transaction types, you can define the line flow that lines of this type will follow. A line transaction type can be coupled with different OM order transaction types. For example, a return transaction type can be used with a standard order type or an international order type. However, you need to specify the flow couplings for the permitted transaction type combinations.

Workflow Assignments

The order type determines the order workflow. The combination of the order type, the line type, and the item type determines the line workflow.

Select appropriate workflows for order types, line types and item types:

You can perform all standard processing including orders, returns, drop ship orders, orders for configured items, and orders for assemble-to-order items using seeded workflows. You can also create your own workflows if you need additional steps, for example, additional notifications or processes.

You cannot select any order workflow to be used with a line workflow. Some workflow steps between an order and line are interdependent based on how Continue-flow and Wait-for-flow activities are paired. Therefore, the same line transaction type needs to follow a different line flow when used with a different order transaction type.

For example, the order flow with header level invoicing waits for an activity in the line flow to complete. If you do not use order and line flows which are designed to

work together you can have orders or lines which either complete activities too early or which never complete.

The inventory item that a line is processing may have specific flow requirements. For example, a configuration needs to have a BOM and work order created before it can be picked and shipped. The standard item can be picked from stock and shipped. Therefore, the workflow for a configuration item is different than a standard item. However, both types of order lines can be use the same line type. The Workflow Assignments window displays the following item types for which a workflow can be assigned for a given order or order line type assignment:

- ATO Models, Classes, Options, Items
- Configured Item
- Kits
- Included Items
- PTO Models, Classes, Options
- Standard Items
- Service Items

If the item type code is left blank, the specified workflow assignment applies to all item types for which there is no specific assignment. However, you should specify an assignment for the configured item type, if you plan to use the line type for ATO models.

Note: A workflow assignment is required for a given line type to support creation of lines using that line type.

The following table displays sample Order types and associated Order Header workflow assignments.

| Order Type | Header Flow Assignment |
|---------------|--|
| Domestic | Header - Standard |
| International | Header - International (This has a post-booking approval.) |

Line Flow Assignments

The Line Flow Assignments window is available only for OM order transaction types only. Use this window to assign line flows to the various line types that can be used with an order type.

A line flow can be assigned to an order type, line type and item type combination. Order Management enables you to define only one effective assignment for a given combination. If the item type is left blank, then that assignment will apply to all item types that do not have a specific assignment. If you plan to use a line type for ATO models then Order Management requires that you specify an assignment for the item type of configured item. Refer to Overview of Workflows and Setting up Workflow.

The following table displays sample Order Line types and associated Order line workflow assignments.

Table 2–8 Sample Order Line Types and Associated Order Line Workflow Assignments

| Line Type | Order Types used with | For Item Type | Line Flow Assignments | Comments |
|-----------|-----------------------|-----------------|-----------------------------------|---|
| Standard | Domestic | | Outbound Domestic | For all item types (except configured items) |
| Standard | Domestic | Configured Item | Outbound Domestic Configuration | Workflow specific to configured items. |
| Standard | International | | Outbound International | This has the appropriate <i>Wait-for Flow</i> defined for the notification activity on the International Header flow. The workflow is for all item types (except configured items). |
| Standard | International | Configured Item | Outbound Domestic - Configuration | This workflow is specifically for configured items. |
| Return | Domestic | | Inbound Domestic | For all item types. |

| Line Type | Order Types used with | For Item Type | Line Flow Assignments | Comments |
|-----------|-----------------------|---------------|--------------------------|--|
| Return | International | | Inbound International | This has the appropriate <i>Wait-for-Flow</i> defined for the notification activity on the International Header flow. This workflow is for all item types. |

Defining Order Management Transaction Types

Prerequisites

- Review seeded Order and Line flows. Define new to meet your business requirements
- Define all lookups
- Define freight carriers. See: Oracle Shipping Execution User's Guide
- Define organizations. See: Creating an Organization, Oracle Human Resources Management Systems User's Guide
- Create Document Sequences for order numbering
- Define defaulting rules
- Define price lists
- Define credit check rules
- Define currencies and currency types. See: [Defining Currencies](#), Oracle Applications System Administrator's Guide.
- Set up your cost of goods sold account flexfield segments. See: [Defining Key Flexfield Segments](#), Oracle Applications Flexfields User's Guide.

To define Order Management document, Pricing, or Credit Check order or line transaction types information:

1. Navigate to the Transaction Types window.

Figure 2–7 Order Management Transaction Types Window

2. Select the Main tabbed region and specify a name that is unique across Operating Units.
3. Enter a Description.
4. Specify whether this is an order or line transaction type.
5. Specify the category.

For Order Types, you can specify a value of Order, Return, or Mixed. For Line Types you can specify Order or Return. When an order type is assigned to an order, the category determines whether both order and return lines can go on the order. A category of Mixed enables an order to have both kinds of lines.

6. For Order Transaction Type only - Optionally, enter an agreement type.

If you enter an agreement type here, you can choose only agreements with this agreement type when using this order type. Define agreement types using Order Management QuickCodes.

7. For Order Transaction Type only, specify a line type that will serve a default for all lines on the order with this order type.

If you are defining a Mixed order type, specify an inbound and outbound default line type. When you create a return line with negative quantities, the Sales Order window automatically sets the category on the to Return.

For Order Lines, the Sales Orders window automatically sets the category to Order. Order Management seeds defaulting rules to get the appropriate default outbound or inbound line transaction type from an order type to a line based on its category code.

8. Indicate whether an agreement is required for order transaction type only.
9. For Order Transaction Type only, check Purchase Order Required to require purchase order numbers during order entry for orders and returns with this Order type.
10. Select a price list to serve as a defaulting source.
11. For Order Transaction Type only- Optionally check Enforce List Price, if you do you cannot apply discounts to the order line list price when you use this order type and you cannot override the selling price, unless the profile option OM: Discounting Privilege is set at the appropriate level.
12. Optionally, select credit check rules to use when performing checking credit at either Booking, Pick Release and Purchase Release (for drop shipments), Packing, or Shipping within the corresponding Credit Check Rule fields.

You can select a credit check rule for each field within the Credit Check Rule region, or choose to select combinations that suit your business purposes. For example, you can choose to select a credit check rule for booking only, or booking and shipping.

If you leave any of the Credit Check Rule fields blank, no credit checking will occur when an order or order line reaches the corresponding workflow activity within the order or line flow, using the order or order line type specified.

Note: When an order type is created, Order Management automatically creates a Document Sequence Category of the same name for you. You can then go an assign a document sequence that you have defined for order numbering to this document sequence category. Document sequence categories are not MLS Compliant. Order Management recommends that you create your order types in the base language of your installation to minimize potential confusion.

Note: Workflow assignments are required for order types to support the creation of orders.

13. Save your work.

To define Shipping Related Attributes for Order Management order and line transaction types:

1. Navigate to the Shipping tabbed region in the Transaction Types window.
2. Optionally, select a warehouse. Warehouses are synonymous with inventory organizations in Oracle Manufacturing.
3. Optionally, enter a Shipping Method.
4. Optionally, enter a Shipment priority.
Define shipment priorities using Order Management QuickCodes.
5. Optionally, enter the Freight terms.
Define freight terms using Order Management QuickCodes.
6. Optionally, enter the Free On Board (FOB) point.
Define FOB points using Receivables QuickCodes.
7. For Line Transaction Type only – Optionally specify a value for ship source type. It can be either internal or external. This determines whether the order line is sourced internally or externally (via Drop Shipment).
8. Optionally, enter the Demand Class.
Define demand classes using Manufacturing QuickCodes.
9. Optionally, specify the scheduling level. It can have the following values:
 - One: Perform only ATP check
 - TWO: Perform ATP check and Scheduling - No reservations
 - THREE: perform complete scheduling (ATP Check, Demanding, Reserving.)

Note: If you do not specify a value for an Order Transaction type, the application interpreted the null value as *Complete Scheduling*. If you do not specify a value for a Line Transaction Type the application uses the value from the Order Type on the Order.

10. For order transaction type only - Optionally, check auto-schedule.

This setting determines whether auto-scheduling is performed for orders using this order type.

11. For return line transaction type only – Optionally, set whether inspection is required.

To define Financial attributes for Order Management order or line transaction types:

1. Navigate to the Finance tabbed region in the Transaction Types window.
2. If you use Oracle Receivables, enter the Default Invoicing Rule to apply to this order or line type.

An invoicing rule controls the amount and timing of your invoices.

3. If you use Oracle Receivables, enter the default accounting rule to apply to this order type or line type. An accounting rule controls the amount and timing of when you recognize revenue for this order.

See: Defining Invoicing and Accounting Rules, *Oracle Receivables User's Guide*.

4. Optionally, select a Invoice Source.
5. Optionally, select a Non-Delivery Invoice Source.
6. Optionally, select the Accounting credit method Oracle Receivables uses when adjusting the revenue account assignments of invoices using multi-period invoicing and accounting rules. See: Crediting Transactions, *Oracle Receivables User's Guide*.
 - LIFO (Last In First Out): Backs out revenue starting with the last general ledger period, and reverses all prior periods until it has used up the credit memo
 - Prorate: Credits an equal percentage to all account assignments for that invoice

- Unit: Reverses the revenue for the number of units you specify from an original line of the invoice
 - Optionally, select the Invoicing credit method Oracle Receivables uses when crediting the installments of invoices that have multiple installments (split term invoices). Crediting Transactions, *Oracle Receivables User's Guide*.
 - LIFO (Last In First Out): Credits the last installment to be credited first and then credits all prior installments until all of the credit is used
 - FIFO (First In First Out): Credits the first installment first and then credits all subsequent installments until all of the credit is used
 - Prorate: Prorates the credit received by the installments of invoices by the amount remaining on their installments
7. If you use Oracle Receivables, enter the receivables transaction invoice type.
Invoice types designate invoice status, invoice printing options, credit memo type, and whether the invoice posts to General Ledger or creates an open receivable. Ensure the Tax Calculation Flag for the Receivables transaction type you choose is set accordingly as this will determine whether Tax is calculated for the order line.
8. If you are defining a return type, select the invoice type associated with the appropriate credit memo type.
9. Optionally, enter a Cost of Goods Sold Account. – Definable only for the Order Transaction Type.
10. Optionally, enter a currency and a currency conversion type. – Definable only for the order transaction type.

If you choose User as the currency conversion type, the Sales Orders window requires you to enter the conversion rate and date.
11. Save your work.

To assign workflows to transaction types:

Use this procedure to assign workflows to line transaction types. The combination of the order type, the line type, and the item type determines the line workflow.

Once you have created a document using an order type you cannot change the existing line workflow assignments. Instead, enter an end date for the existing assignment and enter a new assignment for the for the new workflow.

1. Navigate to the Transaction Types window and query the desired transaction type.
2. Select Assign Line Flows.

Figure 2–8 Line Workflow Assignments Window

Order Type **Standard**

Assign Workflow Processes

| Line Type | Item Type | Process Name | Start Date | End Date |
|---------------|-----------------|---------------------------|-------------|----------|
| Standard Line | | Line Flow - Generic | 11-JUN-2001 | |
| Standard Line | Configured Item | Line Flow - Configuration | 04-OCT-2001 | |
| Standard Line | ATO Model | Line Flow - ATO Model | 04-OCT-2001 | |
| Standard Line | ATO Item | Line Flow - Configuration | 17-SEP-2001 | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

OK Cancel

3. In Order Type, select the order type/line type/item type combination to which you want to assign a workflow.

If you leave Item Type blank, the workflow applies to all item types for the line type (unless they have a specific assignment in this form).

If you use line type ATO Models, use item type Configured Item and return line types use item type Standard even if they are for configurations.

4. In Process Name, select the workflow that Oracle Order Management should use for the order type/line type/item type.

If you do not assign a workflow to a configured item type, the configured item does not use a workflow.

5. In Start Date and End Date, select the time period during which the assignment is effective.
6. Save your work.

Defining Sales Credit Types

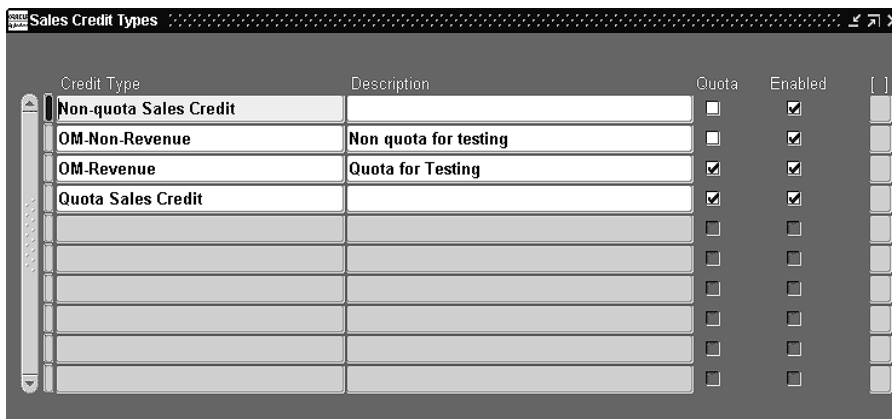
Oracle Order Management uses sales credit types to determine if the sales credit for an order is a quota or non-quota amount. Order level sales credits for revenue must always be equivalent to 100 percent of the sales credit for the order, and non revenue sales credits can be any value you choose.

You can define as many sales credit types as you need.

To define sales credit types:

1. Navigate to the Sales Credit Types window.

Figure 2–9 Order Management Sales Credit Types Window



| Credit Type | Description | Quota | Enabled | [] |
|------------------------|-----------------------|-------------------------------------|-------------------------------------|-----|
| Non-quota Sales Credit | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| OM-Non-Revenue | Non quota for testing | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| OM-Revenue | Quota for Testing | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Quota Sales Credit | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | |

2. Enter the Credit Type Name and Description for the credit type.
3. Select the Quota check box if the sales credit type applies to revenue quota sales credit that you assign to salespeople.
4. Select the Enabled check box to activate the sales credit type.
5. Save your work.

Defining Order Import Sources

You can define Order Import Sources from which to import order information. You can import historical orders, orders from other quote or sales systems, and changes to orders. Oracle Order Management recommends that you define a unique name for each source of order information you are importing. When you run the Order Import program, you can enter the source or sources for each execution. You can run Order Import for multiple sources at one time.

Internal Sales Orders

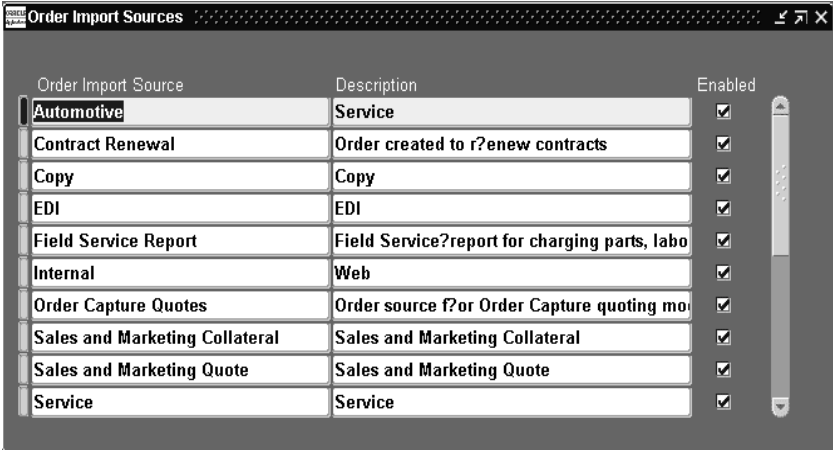
If you are importing internal sales orders from Oracle Purchasing, you need to define an Order Import source to be used when you transfer the internal requisition information from Oracle Purchasing to create an internal sales order in Order Management.

You need to choose an Order Import source for internal requisitions/internal sales orders when you define purchasing options in Oracle Purchasing. You choose this same Order Import source as a parameter when you run the Order Import program in Order Management. See: *Integrating Oracle Order Management Using Order Import, Oracle Manufacturing, Distribution, Sales and Service Open Interfaces Manual*.

To define an Order Import source:

1. Navigate to the Order Import Sources window.

Figure 2–10 *Order Import Sources Window*



| Order Import Source | Description | Enabled |
|--------------------------------|--|-------------------------------------|
| Automotive | Service | <input checked="" type="checkbox"/> |
| Contract Renewal | Order created to renew contracts | <input checked="" type="checkbox"/> |
| Copy | Copy | <input checked="" type="checkbox"/> |
| EDI | EDI | <input checked="" type="checkbox"/> |
| Field Service Report | Field Service report for charging parts, labor | <input checked="" type="checkbox"/> |
| Internal | Web | <input checked="" type="checkbox"/> |
| Order Capture Quotes | Order source for Order Capture quoting module | <input checked="" type="checkbox"/> |
| Sales and Marketing Collateral | Sales and Marketing Collateral | <input checked="" type="checkbox"/> |
| Sales and Marketing Quote | Sales and Marketing Quote | <input checked="" type="checkbox"/> |
| Service | Service | <input checked="" type="checkbox"/> |

2. Enter the Order Import source name and a description.
3. Check Enabled to activate the Order Import source.
4. Save your work.

See

[Order Import](#)

Setup for High Volume Order Processing

If you plan to use the High Volume Order Processing feature, then complete the following steps.

1. Set up the interface tables.
2. Evaluate if simplified defaulting rules are sufficient. If so, use them to supply the required values.
3. If defaulting rules are not sufficient, turn them off and provide the attribute values directly in the interface tables.

Define Processing Constraints

Processing Constraints Overview

In previous releases of Oracle Order Entry, a feature called Security Rules enabled you to control whether changes could be made to certain characteristics of an order after certain cycle steps had been reached. In Release 11i Order Management, Oracle has introduced a new security paradigm called Processing Constraints, which offers somewhat differing functionality. Processing Constraints allow Order Management users the ability to control changes to sales orders, at all stages of its order or line workflows. Reasons to limit changes to existing orders can be:

- Changing data on an entity that would make the data inconsistent and difficult to audit. For example, changing the price list on an order already invoiced. Oracle Applications generally enforces these constraints through seeded processing constraints or within the operation of forms and processes.
- Changing data on an entity that has effected downstream activities that are difficult or costly to undo. For example, changing options on an ATO configuration order if the item is already built. You generally determine the

business need for these constraints and, to express them, create processing constraints.

Processing Constraints also provide the following:

- The ability to control who can make changes based on Responsibility. A constraint (rule) may apply to all responsibilities, a list of constrained responsibilities, or to all except a list of authorized responsibilities.
- The ability to define constraining conditions based on the state of related objects (for example, define a processing constraint for order lines based upon the current status of the order).
- The ability to control order changes based on field values
- The ability to call custom PL/SQL code to determine whether a processing constraint condition evaluates to true.
- The ability to constrain operations at any point in the order or line process flow. In prior releases of Oracle Order Entry, you could only control operations for certain hard-coded cycle actions.

A processing constraint includes these components:

- Entity
- Operation
- Attribute

If an attribute is not assigned to a constraint, the constraint prevents you from updating all attributes on the entity.

- Group Number
- Conditions
 - User Action
 - Validation Entity
 - Scope
 - Record Set
 - Modifier
 - Validation Template
- Applicable To (Optional, user responsibility)

You can define processing constraints for *entity* or *attributes*. *Entities* include regions on the Sales Orders window, such as Order, Line, Order Price Adjustments, Line Price Adjustments, Order Sales Credits, and Line Sales Credits. *Attributes* include individual fields (of a particular *entity*), such as Warehouse, Ship To Location, or Agreement.

As you use Order Management, processing constraints are evaluated for any *entity* you try to cancel, delete, create, split, or update. If you are trying to modify an order line, Order Management evaluates the processing constraints for the Line *entity*.

You can relate a given role to the highest state of the order that changes can be made. For example, the order entry clerk cannot change an order when it has been acknowledged by customer, but the order entry supervisor can change the order until it has shipped. These constraints may apply to the entire order or individual attributes.

For a complete list of processing constraints that are available in the Order Management application, see the Oracle Order Management Suite Implementation Manual, Release 11i, Appendix G.

Processing Constraint Terminology

Entity

Processing Constraints enable you to define constraints for entities such as order header, order line, order/line price adjustments, and order/line sales credits.

Entities can consist of a group of related attributes that similarly correspond to a database table or Order Management form. Entities that can be managed with Processing Constraints are:

- Line Price Adjustment
- Line Sales Credit
- Order Header
- Order Line
- Order Price Adjustment
- Order Sales Credit

Operation

You can define processing constraints to prevent users from performing the operations of Cancel, Create, Delete, Update, and Split on your orders and returns.

You can prevent Update on attributes. You can effectively assign a general Update rule to all attributes associated with a particular entity, as a data entry tool. For example, given a set of conditions you may not allow a user to create a new order line.

Attribute

An attribute is considered a field or column that belongs to an entity. For example, ordered unit of measure is an attribute of the 'Order Line' entity

Select an attribute when the operation is UPDATE or leave the field blank to prevent update of all attributes.

Action

In addition to completely forbidding an action (Not Allowed), you can allow certain actions such as Update or Delete, but maintain an Audit Trail of the changes. To indicate you want to keep an Audit Trail only when a reason is required (Requires Reason with History) or not required (Requires History).

The Requires Reason and History action is applicable for the cancel or update operations to the Order Quantity attribute on the line, only.

System Changes

System changes are used for defaulting and enabling the system to re-default attribute values whenever the defaulting source changes. A changed attribute value would default even if constraint conditions are applicable. This is only applicable for attribute or filed level UPDATE operations.

User Changes

Users changes can be used to indicate whether an attribute level constraint applies to the user only for record updates or will the constraint apply even if the attribute value is modified by the user while the record is being created.

- Select Never after Insert, (default), to indicate that a user may modify this field only if the entity has not yet been saved to the database. This is for attribute for field level update operations.
- Select Never so that an attribute value can never be updated by a user.

For example, setting System Changes to 'Always' and User Changes to 'Never' sets up a constraint where this attribute value can never be edited by the user while constraint conditions are applicable; however the system can always default or re-default a value for this attribute.

Conditions

The condition of your processing constraint is like an If-Then statement. Order Management checks for occurrences of the condition in your constraint while users are cancelling, deleting, creating, splitting lines, and updating orders and returns. When the condition or conditions of a processing constraint are met, Order Management prevents the operation of that constraint.

Group Number

Each processing constraint condition has a number that indicates whether the condition is independent of all other conditions, or whether it should be considered only when another condition is also true. Use this number to create and/or conditions. Create an And condition by using the same group number for each row in the condition, or an Or condition by using a different group number for each row. Conditions with the same number must both be true for the processing constraint to apply.

For conditions with different numbers, at least one must be true for the processing constraint to apply. You can create several And conditions and Or conditions for one object or attribute.

Attention: Order Management does not allow you to enter a number equal to any number already used in the Number field of a system processing constraint condition. This would, in effect, create an *And* statement with a system processing constraint, and could endanger data integrity.

Scope

Scope indicates whether you want Order Management to evaluate the condition of the constraint against any or all entities in the record sets.

- If the Scope is Any the condition holds true if any line within the record set meets the condition.
- If the scope is All, all lines in the record set must meet the condition for the entire condition to be evaluated as True.

Validation Entity

The validation entity is the entity on which the constraint condition is based on. This could be same as the entity on the constraint or it could be an entity related to the constrained entity. For example, a constraint might be defined for UPDATE of

Ship To on Order Header entity but condition needs to be if Any Order Line has been shipped. Thus validation entity is Order Line while constrained entity is Order Header.

Record Sets

A record set is a set of records that are bound by common attributes such as invoice sets. You can define constraining conditions and specify a record set to be validated for a given condition as defined by its validation template.

Modifier / Not

You can use a modifier in the condition of a processing constraint to define a negative condition. For example, if the condition is Booked and the Modifier/Not check box is checked, then the condition is evaluated as NOT booked.

Validation Template

The validation template defines how the condition is to be evaluated. The template could be based on a workflow state, field value or if it is complex, it could also be based on the output of a validation API.

API based validation templates are not available if the constrained entity is different from the validation entity on the condition. Validation templates are not available even if the record set being used is anything other than the primary key record set.

For example, API based Validation template Pick Released has been set up for entity Order Line. If you set up a constraint for attribute Ship To on Order Line, the validation template Pick Released is available but for a constraint on attribute Ship To on Order Header, Pick Released will not be available.

For attribute Ship To on Order Line, if the constraint condition uses any record set (ATO Configuration, for example) other than the primary key record set Order Line, the validation template Pick Released will not be available.

Special Considerations

Rules That Cannot Apply

If you define a constraint for Create on an entity where the condition would be applicable on the same existing entity, the constraint will never apply. If the condition only occurs for existing entities, but they are already inserted, the constraint cannot be enforced and will not be applied. For example, a rule for Insert on a Line where the condition is Ship Confirm is unenforceable because a line is already inserted if that condition exists.

Processing Constraints Must Be Cooperative at Various Entity Levels

Order Management evaluates processing constraints for an entity when you are trying to perform an action on that entity. If you have a processing constraint on a lower-level entity (such as Line), and you try to perform an operation on the higher-level entity (such as Order), the Line level constraint is not evaluated. Therefore, when defining processing constraints, make sure that your higher-level entity constraints cooperate with your lower-level entity constraints so that all levels are synchronized. For example, if you have a constraint for the Line entity on the operation of Delete, define a comparable constraint for the Order entity so that you can cover all delete situations.

See

[Processing Constraints](#)

[Order Management Processing Constraints](#)

Defining Processing Constraints

This section describes how to set up your processing constraints based on validation conditions in validation templates (for example, Booked = Yes) which are evaluated for groups of records (record sets).

Prerequisites

Become familiar with the Processing Constraints that are delivered with the Order Management Application.

See

[Processing Constraints](#)

[Order Management Processing Constraints](#)

To set up processing constraints:

1. Navigate to the Define Processing Constraints form.

Figure 2–11 Define Processing Constraints Window

Processing Constraints

Application: **Oracle Order Management**
Entity: **Order Header**

Constraints

| Operation | Attribute | User Action | System Changes | User Changes | Seeded? |
|-----------|----------------------|-------------|----------------|--------------|-------------------------------------|
| DELETE | | Not Allowed | | | <input checked="" type="checkbox"/> |
| UPDATE | Conversion Rate | Not Allowed | | | <input checked="" type="checkbox"/> |
| UPDATE | Conversion Rate Date | Not Allowed | | | <input checked="" type="checkbox"/> |

Conditions Applicable To

| Group # | Scope | Validation Entity | Record Set | Not | Validation Template | Seeded? |
|---------|-------|-------------------|------------|--------------------------|---------------------|-------------------------------------|
| 1 | Any | Order Header | Order | <input type="checkbox"/> | Is gapless | <input checked="" type="checkbox"/> |
| 2 | Any | Order Header | Order | <input type="checkbox"/> | Booked | <input checked="" type="checkbox"/> |

User Message
Gapless Orders should be cancelled

2. Query Application for Oracle Order Management and Entity for the entity for which you want the processing constraint, for example, Order Header or Order Line.
3. Move to the Constraints region. In the top area of the region, enter each constraint in a line.
4. In Operation, select the operation that you want to constrain.
5. Select an Attribute to constraint, based upon the operation selected.
 - If you select the value UPDATE for the Operation field and you do not select an Attribute value, the constraint allows no update to any field of the entity, by any user.
6. In User Action, select one of the following:
 - Not Allowed: You cannot perform the constrained operation

- **Require Reason and History:** You can perform the operation only if you enter a reason. Use this with Operation CANCEL, Operation UPDATE if the constrained attribute is Ordered Quantity only, and for recording Audit Trail history when requiring a reason for an attribute change
 - **Requires History:** You can perform the operation and will not be prompted to enter a Reason. You still have the option to enter both a Reason and Comment, and if you do so, the information is recorded. Use the value for enabling Audit Trail history to be recorded without a reason for an attribute change
7. Select a value for the System Changes field. The value selected in this field determines if system changes are allowed, despite the constraint. Choose from:
 - **Always:** System changes allowed
 - **Never after Insert:** System changes allowed if the entry has not been saved to the database
 8. Select a value for the User Changes Field. Choose from:
 - **Never:** The user is always constrained
 - **Never after Insert:** The user is constrained after the entry is saved to the database
 9. **Seeded Check Box** - If a Constraint has the seeded check box selected, you cannot update the constraint definition.
 10. Move to the Conditions tabbed region. Enter a constraining condition for the selected constraint. The selected constraint is determined by the previous cursor position prior to moving to the Conditions tabbed region.
 11. In Group Number field, enter a numeric value according to the following principles:
 - For conditions that should together evaluate to TRUE (AND conditions), enter the same group number. The constraint applies if the entity in question meets all of the conditions defined.
 - For conditions that should together evaluate to OR (OR conditions), enter a different number for each record. The constraint applies if the entity in question meets any one of the conditions defined.
 12. In Scope, if the record set applies to multiple records, indicate the scope of evaluation of the record set for this condition. An example of a record set that applies to multiple records is the record set of all of the lines of a sales order. Select one of the following:

- Any: The condition is satisfied if one of the records meets it, for example, the condition is satisfied if one of the sales order lines is booked
 - All: The condition is satisfied if all of the records meet it, for example, the condition is satisfied if all of the sales order lines are booked
13. In Validation Entity, enter the entity for which the condition is validated. You can enter the same entity as the constraint (at the top of the Constraints region) or you can enter an entity related to the constraint. For example, if the constraint is against Order Header, Validation Entity can be Order Line.
 14. In Record Set, select the record set that corresponds to the entities to which the constraints process should apply the condition. For example, if you enter the order line record set Line, the condition is evaluated against the order line in question. If you enter the order line record set Order, the condition is evaluated against any or all (depending on the scope) lines of the order in question.

If Validation Entity is different from Entity (at the top of the form), you can only select record sets based on the primary key of the validation entity.
 15. Select the Not check box (the negative condition modifier) to direct the constraints processing to evaluate the NOT condition of Validation Template. For example, if you expect to select Validation Template Booked, selecting NOT creates the condition of not booked for the constraint.
 16. In Validation Template, select a validation template. This item specifies the condition being evaluated.
 17. Constraint Condition Seeded check box:
 - If a Constraint has the seeded check box selected, and the constraint condition check box is also selected, you cannot update the constraint condition.
 - If a Constraint has the seeded check box selected, and the constraint condition check box is not selected, you can update the constraint condition.
 18. In User Message, enter the trailing portion of the error message that the constraint processing should display when the user violates the constraint.

For example, if the constraint was to not allow an update of the item field on the order line if the line has been previously booked, constraints processing displays the error message You are not allowed to update the item; the item is booked.

19. Move to the Applicable To tabbed region. In this region, specify to whom the constraint applies.

Figure 2–12 Processing Constraints Window

The screenshot shows the 'Processing Constraints' window. At the top, the 'Application' is set to 'Oracle Order Management' and the 'Entity' is 'Order Header'. Below this is a table of constraints. The 'Applicable To' tab is selected, showing three radio button options: 'All responsibilities' (selected), 'Authorized responsibilities', and 'Constrained responsibilities'. Below these options are three empty text input fields for specifying responsibilities.

| Operation | Attribute | User Action | System Changes | User Changes | Seeded? |
|-----------|----------------------|-------------|----------------|--------------|-------------------------------------|
| DELETE | | Not Allowed | | | <input checked="" type="checkbox"/> |
| UPDATE | Conversion Rate | Not Allowed | | | <input checked="" type="checkbox"/> |
| UPDATE | Conversion Rate Date | Not Allowed | | | <input checked="" type="checkbox"/> |

Conditions **Applicable To**

☒ All responsibilities
☐ Authorized responsibilities
☐ Constrained responsibilities

Below the radio buttons are three empty text input fields for specifying responsibilities.

20. Select one of the following:
- All responsibilities: The constraint applies to all responsibilities.
 - Authorized responsibilities: The constraint applies to all responsibilities except ones that you specify. Specify the excepted responsibilities in the untitled lines below your selection.
 - Constrained responsibilities: The constraint applies to the responsibilities that you specify. Specify the excepted responsibilities in the untitled lines below your selection.
21. Save your work.

Processing Constraints Example

To set up a processing constraint that forbids update of the sales order header order type when there are order lines created or when the order is booked, do the following after navigating to the Define Processing Constraints form:

- Query in the top of the form:
 - Application: Oracle Order Management
 - Entity: Order Header
- Enter on a new line at top of the Constraints region:
 - Operation: Update
 - Attribute: Order Type
 - User Action: Not allowed
 - Leave System Changes, User Changes blank
 - Clear Seeded check box
- Enter in the first line of the Conditions tabbed region:
 - Group Number: 1
 - Scope: Any
 - Validation Entity: Order Header
 - Record Set: Order
 - Clear NOT check box
 - Validation Template: Booked
 - Clear Seeded check box
 - User Message: the order is booked
- Enter in the second line of the Conditions tabbed region:
 - Group Number 2
 - Scope: Any
 - Validation Entity: Order Header
 - Record Set: Order
 - Clear NOT checkbox

- Validation Template: Lines Exist
- Clear Seeded checkbox
- User Message: the order has lines

See

[Processing Constraints](#)

[Order Management Processing Constraints](#)

Processing Constraints Usage

As you use Order Management, processing constraints are evaluated for any *entity* you try to cancel, delete, create, split, or update. If you are trying to modify an order line, Order Management evaluates the processing constraints for the Line *entity*.

Defining Validation Templates

Order Management provides you the ability to define your own validation conditions by the use of validation templates. A validation template names a condition and defines the semantics of how to validate that condition. Validation templates can be used in the processing constraints framework to specify the constraining conditions for a given constraint. These conditions are based on:

- Where the entity is in its workflow
- The state of attributes on an entity
- Any other validation condition that cannot be modeled using the above methods

API based validation templates are not available if constrained entity is different from the entity for which the validation template has been defined (or the Validation templates are not available even if the record set being used is anything other than the primary key record set).

For example, API based Validation template Pick Released has been set up for entity Order Line. If you set up a constraint for attribute Ship To on Order Line, the validation template Pick Released is available but for a constraint on attribute Ship To on Order Header, Pick Released will not be available.

For attribute Ship To on Order Line, if the constraint condition uses any record set (ATO Configuration, for example) other than the primary key record set Order Line, the validation template Pick Released will not be available.

To define a validation template:

Navigate to the Validation Templates window.

Figure 2–13 Validation Templates Window

Application: **Oracle Order Management**

Validation Templates

| Entity | Template Name | System Defined? | Short Name | Description | Validation Type |
|--------------|---------------|-------------------------------------|------------|--------------------|--|
| | | | | | Wf API Col |
| Order Header | Agreement | <input type="checkbox"/> | AGMT | Agreement not null | <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> |
| Order Header | Booked | <input checked="" type="checkbox"/> | BOOKED | Order Booked | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> |
| Order Header | CORPORATE | <input type="checkbox"/> | CORPPL | Order Header | <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> |
| Order Header | Cancel Order | <input checked="" type="checkbox"/> | CANORD | Cancel Order | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> |
| Order Header | Closed | <input checked="" type="checkbox"/> | CLOSED | Order Closed | <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> |

Validation Semantics

| Column | Validation Op | Value String |
|-----------|---------------|--------------|
| Agreement | Is Not Null | |
| | | |
| | | |

22. Select the Entity for which the condition is to be defined.
23. Enter a Template Name for the condition.
24. Enter a name in the Short Name field for the condition.
25. Optionally, enter a Description for the constraint condition.
26. Select the Validation Type to be performed by the condition. Select from:
 1. Wf: (validation is based on the workflow status of this entity):
 - Select the Activity for the condition
 - Select the Activity Status for the condition. Select from: Active, Complete, Error, Notified, and Suspended
 - Select the activity Result for the condition
 - Save your work
 2. API (validation is completed through an Application Program Interface):

- Select the PL/SQL Package you wish to interface with the constraint condition
 - Enter the Procedure name of the API
 - Save your work
3. Col (validation is based on the values of database columns on this entity):
- Select the Attribute Column name on the entity for the constraint condition
 - Select the Validation Operation for the constraint condition. Select from: = (Equal To), <> (Not Equal To), Is NULL, Is Not NULL
 - Select the Value String you want to validate against the value of the column

Note: You can add more than one attribute, value pair, otherwise all pairs will be added together in the validation.

27. Save your work.

28. When you have created new validation templates or record sets, you will need to submit the Create Validation Packages concurrent program from the Tools menu to submit a concurrent request to create a validation package for all new or modified validation templates and record sets that may constitute a permitted validation combination. After the request completes, all validation templates that processed successfully will be visible in the list of values in the Processing Constraints window.

See

[Processing Constraints](#)

[Order Management Processing Constraints](#)

Defining Record Sets

The Records Sets feature in Order Management is used to define and maintain record set definitions for processing constraints. A record set is a set of records that are bound by common attributes such as ship sets. You can define constraining conditions and specify a record set to be validated for a given condition as defined by its validation template.

To define a record set:

1. Navigate to the Record Sets window. The Record Sets window displays.

Record Sets

Application: **Oracle Order Management**

| Entity | System Defined? | Record Set | Short Name | Description | Based On Primary Key? |
|-----------------------|-------------------------------------|-----------------------|------------|---------------------------|-------------------------------------|
| Line Price Adjustment | <input checked="" type="checkbox"/> | Line Price Adjustment | LINEADJ | Line Price Adjustment | <input type="checkbox"/> |
| Order Header | <input type="checkbox"/> | Customer Orders | CUSTORD | All Orders for a Customer | <input type="checkbox"/> |
| Order Header | <input checked="" type="checkbox"/> | Order | ORDER | Order Header | <input checked="" type="checkbox"/> |
| Order Header | <input type="checkbox"/> | customer orders | CUSTOR | cust. orders | <input type="checkbox"/> |
| Order Line | <input checked="" type="checkbox"/> | ATO Configuration | ATOCON | ATO Configuration | <input type="checkbox"/> |

Matched Columns For Record Selection

| Column |
|------------------|
| Line |
| Price Adjustment |
| |
| |

2. Select the Entity for which you are defining a record set.

The Seeded check box is enabled if the system automatically defines the name of the record set. This check box is non updatable.

3. Enter the name of the Record Set.

4. Enter the Short Name for the record set.

Note: You cannot modify the Short Name once it has been entered.

5. Optionally, enter a Description for the record set.

The Based On Primary Key check box is used to indicate the record set that is based on the primary key columns for the entity. There can only be one primary record set per entity. These records are seeded and cannot be updated.

6. Select the name of the columns that should be matched from the validated record in the Matched Columns For Record Selection region.

For example, if you define a Ship Set record set, the matching columns will be the Header ID and the Ship Set number.

7. Save your work.

8. Select the Create Validation Packages concurrent program from the Tools menu to submit a concurrent request to create a validation package for all modified validation templates and record sets that may constitute a permitted validation combination.

Only after the request completes, the created validation template is visible in the list of values in the Processing Constraints window.

9. Save your work.

Define Defaulting Rules

Overview of Defaulting Rules

Order Management Defaulting Rules reduce the amount of data input required when entering orders or returns. You can define business rules for defaulting values, and prioritize how conditions and validation rules are implemented. If a defaulting rule definition fails to default desired values for orders or returns, you can choose to define additional defaulting rules for most attributes (fields) within Entities such as Order or Line.

Order Management provides seeded defaulting rules, and you can create additional Defaulting Rules by either:

- Defining a new defaulting rule, either with a new Condition you create or using an existing Condition
- Disabling a seeded defaulting rule and creating your own. You can not change seeded defaulting rules but you can disable the defaulting rule's condition

Note: You cannot update defaulting rules marked as seeded. However, you can create additional rules based upon seeded rule definitions and consequently disable the seeded rule.

Depending on your release level, if you wish to default the Item Identifier type attribute for an order line, select either *INT* or *Internal Item*.

You can use defaulting rules to default values into fields (attributes) in both the Header and Lines Entities

- Entities include groups of related attributes such as Order or Line
- Attributes are the individual fields within a particular entity, such as Warehouse, Ship To Location, or Agreement

A default is a value that Order Management automatically places in an order or line field.

- If the Attribute name is the same on both the Order and the Line, you can initially default the value from the Header to the Line

For example, you can default Purchase Order at the Header to Purchase Order at the Line when you first create a PO number

Note: The initial value will default, but if you change the PO the new value will not default automatically from the header to the line.

- You can also default the value of an attribute from another attribute within the same entity. For example, you could default Promise Date on the Line from Request Date within the Line Entity.

A defaulting condition is evaluated at run time to select the appropriate default source assignments for all the object attributes. You can define defaulting conditions that control defaulting of object attributes of an object (data object) in given mode of

functionality. For example, you may have set up a condition for defaulting to occur one way if the Payment Terms are A, and another way if the Payment Terms are B.

- Defaulting conditions created for an Entity must be based on attributes within that Entity. For example, within the Lines Entity, you cannot use the attribute Order Type because Order Type is a attribute within the Header Entity.

A defaulting rule includes the following components:

- Defaulting Source/Value (Entity and Attribute, Source Type)
- Defaulting Condition
- Precedence of Defaulting Condition (if multiple defaulting conditions exist, precedence determines the condition to use)
- Sequence (in what order is the rule applied if multiple rules exist)
- Source Type and Defaulting Source/Value: (how the attribute value is derived)

Defaulting Rules

You can define several different rules to use in different order processing situations.

Sequence of Initial Attribute Defaulting

When attributes have equal sequence numbers, defaulting takes place alphabetically. You can change these sequences, if you need defaulting to happen in some different order. For example, you might define a sourcing rule that says default attribute A on the line from attribute B on the same line. In this case, you need to ensure that the Attribute B is defaulted before A is defaulted, or the rule may not work as you expect.

Alternatively, attribute A can be set up to be dependent on Attribute B. Refer to 'Dependencies' section for further details on how to set this up.

Defaulting Rule Sequences

Specify the priority sequence in which you want to search for a field's defaulting value. Order Management looks at the lowest sequence number initially to begin searching for a default value, and continues to the next highest sequence number until it finds a value. For example, if your first and second sources are null, but your third source contains a value, Order Management uses your third source as the source.

Defaulting Sources

A defaulting rule source is the location from which you obtain a defaulting value; usually the location is another entity and attribute. For most attributes, you can assign at least one entity/attribute defaulting source, in addition to using other defaulting sources.

Defaulting Sources include:

- Same Record
- Related Record
- System Variable
- Constant Value
- Profile Option
- PL/SQL API.

For example, you may want to define a rule to default the Price List to the order header based upon a variety of different sources. Potential defaulting sources include customer agreement, customer, and order type; the potential attribute for all three of these entities would be Price List. You can choose any of the three source entities. Your choice may depend on your business practices, whether those sources exist for a particular order, and whether those sources have a price list defined for them. For the customer, you may have defined separate price lists for the Bill To and Ship To addresses in addition to the customer itself. All three of these fields are available as sources.

Examples of Defaulting Sources

Profile Option The profile option source enables you to use a profile option, either system- or user-defined, as a default value source. You must indicate the name of the profile option to be used as the default value in your rule. Profile options sources enable for flexible default value tailoring without complex customizations.

Note: If you intend to use a profile option as a defaulting source, be certain that it is defined before attempting to reference it in a defaulting rule.

Constant Value The constant value source option enables you to specify a constant value instead of a field that contains a value. This is especially useful if you want

your default to be the same value or to be used if no other sources you have defined for your rule can provide a value.

For example, if all items in your organization are sold with the unit of measure *Each*, you could define a defaulting rule to default the value of *Each* for the Unit of Measure attribute within the Order Line entity.

System Variable This system variable source option enables you to default system variables or functions of system variables for a field. This is commonly used to default date fields where SYSDATE expression or functions on SYSDATE can be used to default the current date or a function of the current date.

For example if the policy of your organization is to ship all items on the next day, you can setup the Request Date defaulting rule with System Variable as *sysdate + 1*.

Same Record Using same record as a source, you can default an attribute from another attribute on the same entity record.

For example a common requirement is to compute tax for an order line based on the scheduled ship date for that line. Set up a defaulting rule for tax date with Same Record source and Source Attribute as Schedule Ship Date.

Related Record The Relates Record is one of the most frequently used defaulting sources. Defaults for certain attributes can be setup when defining related object records such as Customer, Ship To, Bill To and Item.

For each attribute that you can use as a default, related record source objects/ source attributes are pre-defined in the system.

For example Order Type can be defaulted from its value on the related objects: Customer, Invoice To, or Ship To. The source attribute in each case would be Order Type.

PL/SQL API If you have a complex defaulting rule that cannot be defined using any other defaulting source, you can use the API source. Your logic to derive default values can be coded into your custom PL/SQL API, enabling you to reference you API within a defaulting rule.

See: Defining Defaulting Rules.

Dependencies

Some attributes are dependent upon the value of other attributes on the same record. Dependencies can be established only among attributes on the same entity,

not across entities. The list of available Source Attribute and Dependent attributes is pre-defined; most attributes are available but some are not.

- If an attribute is changed, either by the user or by the system, any attributes that are dependent on it will be cleared and then re-defaulted.

For example, the Freight Terms for the Header Entity is dependent on Agreement. If the Header Agreement is changed, the Freight Terms for the Header entity will be cleared and re-defaulted.

Note: Since the initial release of Oracle Order Management, functionality for Defaulting Rules has been slightly modified. Previous versions of Order Management allowed a change for certain attributes such that if re-defaulting did not determine a default for the dependent attribute, the previous value would be retained instead of clearing the value. Attributes affected are:

- Price list
- Salesperson
- Customer po number
- Order type

For example, the Salesperson for the Header Entity is dependent on Header Customer. If the Header Customer is changed, the Salesperson for the Header entity will be cleared and defaulting rules re-applied.

- Within previous releases, if the new Customer entered does not have a value for Salesperson, the old value was retained
- In this release and within future releases, Order Management will leave the field Salesperson NULL if a default is not available

The new functionality surrounding defaulting is available and part of the core Order Management application.

- If you create a rule for attribute X based on a condition using attribute Y, ensure that attribute Y is defaulted (not manually entered) before attribute X. Please note that if you manually enter Y and want to default X based upon the current value of Y, you will need to define a dependency where the source attribute is Y and the dependent attribute is X.

For example, if you define a Condition for defaulting the Unit of Measure by using the Customer, ensure that Customer is defaulted before the UOM. If you

were to enter the Customer and you want Unit of Measure to re-default based on this new Customer value, you must define a dependency for Unit of Measure on Customer.

If you wish to create additional dependencies or disable existing dependencies, you can code a simple customization in the dependencies API

For additional details on dependencies and usage of the APIs within Defaulting Rules, refer to the Order Management white paper Defaulting Rules Setup, available on OracleMetaLink, <http://www.oracle.com/support/metalink/>.

Effects of Modifications to Orders and Rules

Modifications to orders may cause Order Management to re-apply defaulting values from your defaulting rules. This reapplication of defaults also may lead to changes that trigger another default.

If re-application changes a value and results in inconsistent information on the order, Order Management prevents users from committing the order and provides messages to assist in correcting the data. For example, depending on the defaulting rules, changing the line type on the order line could change the price list on the line. If the line items are not in the new price list, Order Management prevents you from committing the order and issues instructions.

Modifications to defaulting rules take effect for any new orders that use the modified defaulting rules when you open the Sales Order Header or Lines windows or if you update an attribute (field) on an order. If you do not or query an order or make a change to an existing order that uses the modified defaulting rules, thus activating validations for defaulting, then the order is not affected by the modification.

- During order and line defaulting, Order Management does not replicate the value of defaulted attributes to all common lower level entities (cascading) when performing updates to existing orders. If you want to change the value of lower level entities for defaulting attributes on existing order or line records, you should utilize Mass Change functionality.

For example, assume you have a defaulting rule set up to default the line-level attribute Ship Method from the order header to all order line. You create an order using Ship Method A, then add several lines. Since you are using Ship Method A for the order header, each subsequent order line created will use the default, Ship Method A. Now, you decide to change the Ship Method for the order header to Ship Method B.

- Changing this attribute at the order header will result in any subsequent new order lines created to use Ship Method B as a default. Existing order lines that have Ship Method A are not updated to Ship Method B as a result of your changing the header attribute.
- Use mass change to update order lines to Ship Method B.

Generating Defaulting Packages for Rules and Conditions

To generate or update defaulting rules or defaulting conditions, you must submit the Defaulting Generator concurrent program. When you submit the Defaulting Generator concurrent program, a defaulting handler package is generated for each attribute on each entity. The creation of new rules or conditions, as well as modified rules and conditions are not effective until the defaulting package for the attribute is successfully generated.

The concurrent program must be submitted if you perform either of the following:

- Update an existing defaulting rule
- Update a defaulting condition: When validation rules for a defaulting condition are updated, defaulting packages need to be re-generated for all attributes of the entity
- Disable a defaulting condition

See

[Order Management Defaulting Rules](#)

Defining Defaulting Rules

You can create and modify defaulting rules to improve the efficiency and accuracy with which you enter orders. You can define the rules to determine the source and prioritization for defaulting order information to reduce the amount of information you must enter manually in the Sales Orders window. For most fields, you can assign one or more defaulting sources in a priority sequence, or, if the default is always the same, you can define a constant value.

Updates to defaulting rules take effect once the Defaulting Generator concurrent program has been submitted for the application and entity combination modified and the program successfully completes for the entity combination modified.

Existing orders are only affected by updates to defaulting rules if you update an attribute on an order that was included in the modified defaulting rule. If you do not perform a change to an existing order that uses the modified defaulting rules,

thus activating validation of defaulting, the order is not affected by the modification.

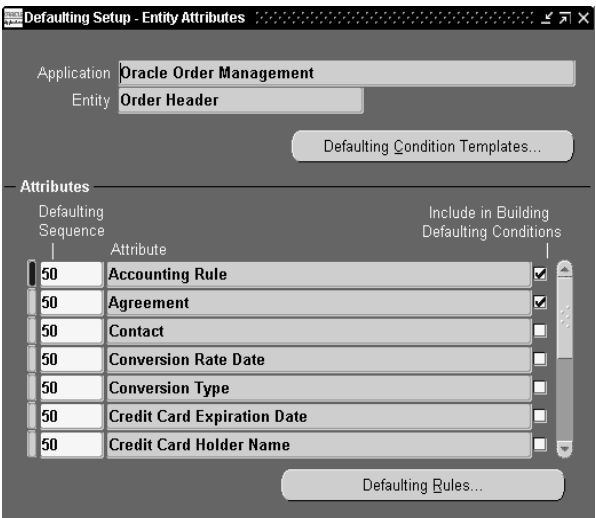
Note: Seeded defaulting rules can be disabled, but not modified.

If you wish to modify a seeded defaulting rule, disable the seeded defaulting rule condition, and then create a copy of the seeded defaulting rule and include your changes in the copied defaulting rule.

To query entities and attributes:

- 1. Navigate to the Defaulting Setup - Entity Attributes window.

Figure 2–14 Defaulting Setup-Entity Attributes Window



Entity Region

- 2. Application: The Application field displays the application context for the entity displayed. For Oracle Order Management, the value is “Oracle Order Management”. This field is non updatable.
- 3. Entity: The Entity field displays the name of the object for which defaulting rules and conditions are being defined such as the order line. For Order Management you have the following options:

- Order Header
- Order Line

Attribute Region

The Attributes Region displays all the entity attributes for which defaulting rules can be defined. You are currently NOT allowed to enter new records here.

4. The Defaulting Sequence field enables a user to assign the sequence (priority) number in which this attribute should be defaulted.

Note: Attribute with identical sequence numbers are defaulted in alphabetical order.

e.g. If the order type has a sequence number of 1 and the price list has a sequence number of 1, then the order type defaults before the price list.

5. The Attribute field stores the name of available attributes. Values are currently defaulted based upon the entity selected.
6. The Include in Building Defaulting Conditions check box indicates whether an attribute can be used in defining conditions for the entity selected.

Note: The *Include in Building Defaulting Conditions* checkbox is for display purposes only, and is non-updateable.

7. Save your work.
 - The Defaulting Condition Templates button enables you to define defaulting template and conditions for the application\entity combination displayed on the defaulting rules setup window. Selecting this button will take you to the Defaulting Condition Validation Templates window.
 - The Defaulting Rules button enables users to define defaulting rules for the attribute selected. Selecting this button will take you to the Attribute Defaulting Rules window. For more information on defining or updating defaulting sourcing rules, see the Define Defaulting Rules section.

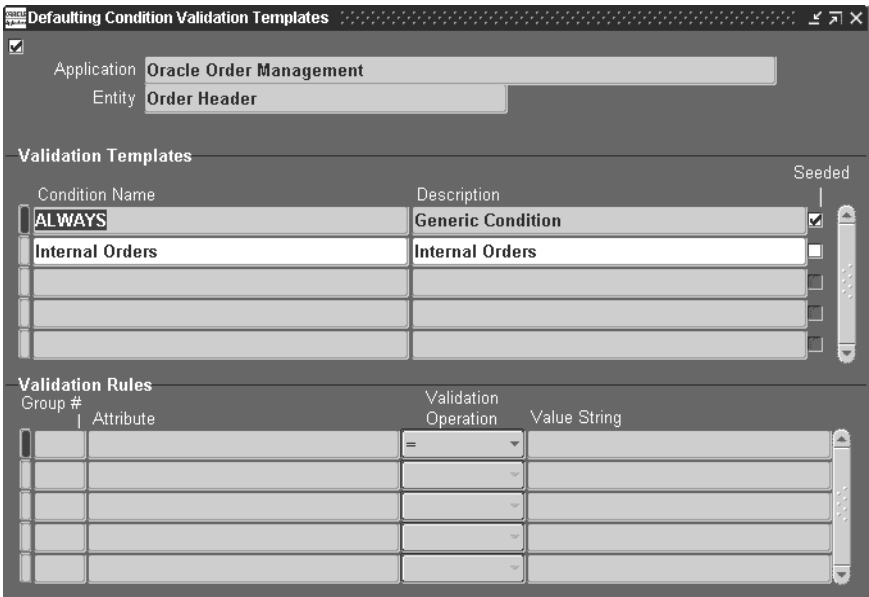
Select the Defaulting Condition Templates button to define the defaulting condition for this entity.

Note: The template that appears after selecting the Default Condition Template button is based upon current values displayed in the Application and Entity field on the Defaulting Step screen.

To define Defaulting Condition Templates:

- 1. Navigate to the Defaulting Conditions Validation Templates window.

Figure 2–15 Defaulting Condition Validation Templates Window



- 2. Defaulting conditions enable you to define conditions that can be used to dictate how and when an attribute is sourced and defaulted. Select an existing condition name if you wish to update the associated validation rules or add a new condition name with associated validation rules.
- 3. In the Description field, enter a brief description of the condition.

Note: A generic condition of *Always* is seeded for each entity. Use this condition to define generic defaulting rules

4. The Seeded check box will be checked for seeded conditions. This field is protected against update. You cannot update seeded conditions or validation rules associated with seeded conditions, however, you can disable seeded conditions and create your own.

In the Validation Rules Region, enter the validation rules based on the attribute values of the above entity. For example, standard orders could have the order type Standard. Order type = Standard.

5. In the Group Number field:
 - For conditions that should together evaluate to TRUE (AND conditions), enter the same group number
 - For conditions that should together evaluate to OR (OR conditions), enter a different number for each record
6. Select the Attribute name, such as Order Type.
7. Select the validation operation: Select from:
 - (>) Greater Than
 - (<) Less Than
 - (>=) Greater than or Equal to
 - (<=) Less than or Equal to
 - (=) Equal
 - (!=) Not Equal
8. Enter the Value String of the attribute that you want to validate against.
9. Navigate to the Defaulting Setup - Entity Attributes window.

The Attribute name displays in the Attribute field. Descriptive Flexfield attributes will not be displayed.
10. Save your work.

Select the Defaulting Rules button to define your defaulting rules.

To define defaulting rules:

1. Navigate to the Attribute Defaulting Rules window.

Figure 2–16 Attribute Defaulting Rules Window

The screenshot shows the 'Attribute Defaulting Rules' window. At the top, the 'Application' is 'Oracle Order Management', the 'Entity' is 'Order Header', and the 'Attribute' is 'Price List'. Below this, the 'Defaulting Conditions' section contains a table with columns for 'Precedence', 'Defaulting Condition', 'Enabled', and 'Seeded'. The first row has '1' in the precedence column, 'ALWAYS' in the condition column, and both 'Enabled' and 'Seeded' checkboxes are checked. Below this is the 'Default Sourcing Rules' section with a table with columns for 'Sequence', 'Source Type', and 'Default Source/Value'. It lists three rules: 1. 'Related Record' with 'Agreement.Price List', 2. 'Related Record' with 'Ship To.Price List', and 3. 'Related Record' with 'Order Type.Price List'.

| Precedence | Defaulting Condition | Enabled | Seeded |
|------------|----------------------|-------------------------------------|-------------------------------------|
| 1 | ALWAYS | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> | <input type="checkbox"/> |

| Sequence | Source Type | Default Source/Value |
|----------|----------------|-----------------------|
| 1 | Related Record | Agreement.Price List |
| 2 | Related Record | Ship To.Price List |
| 3 | Related Record | Order Type.Price List |
| | | |
| | | |

Defaulting Conditions Region

- 2. Enter a value in the Precedence field to determine the precedence when resolving multiple TRUE defaulting conditions.

Note: If more than one defaulting condition is valid, the conflict is resolved by internally ranking conditions using the Precedence value.

For example, defaulting condition *Standard Order* has a precedence value of two and *Copied Order* has a precedence value of one. If an order is standard *and* a copied order, then the defaulting condition with higher priority, Copied Order, is used initially. If your conditions for *Copy Order* do not return a default, conditions for *Standard Order* will be evaluated.

- 3. Select a Defaulting Condition from the List of Values and then enter the defaulting rules to be used if this defaulting condition is TRUE.

Note: The *Always* condition should be the last in this sequence as it would always evaluate to *True* and no other defaulting conditions would be evaluated.

4. Select the Enable check box if you wish to enable the defaulting condition. If this check box is not selected, the defaulting condition is disabled and the rules and condition associated with this condition are not used in default possessing.
5. The check box for the field Seeded cannot be updated. This value is seeded by Order Management. For seeded Order Management defaulting conditions, you are unable to update or delete any fields except:
 - The Precedence field on the defaulting rule condition and
 - The Enable check box. You can disable seeded Order Management defaulting rules.

Default Sourcing Rules Region

6. Select the priority Sequence in which you want to retrieve the default for this attribute.

The defaulting process searches for a default for your attribute by evaluating defaulting rules in ascending order.

7. Select the defaulting source type. The defaulting source type determines data entry in the Default Source/Value field.
8. Based on the default source type selected, either select the default sources or enter default values in the Default Source/Value field.

The table below describes Order Management Source Types and the appropriate action required by a user.

Table 2–9 Order Management Source Types and Actions

| Source Type | Action required |
|----------------|--|
| Constant Value | Enter the default constant value. |
| Profile Option | Select the profile option from where you want to retrieve the default value. |
| Same Record | Select the attribute on the same record from where you want to retrieve the default value. |

| Source Type | Action required |
|-----------------|--|
| Related Record | Object--Select the related object. Attribute--Select the attribute on the related object from where you want to retrieve the default value. |
| System Variable | Expression--Enter the system expression to be evaluated to obtain the default value. (E.g. System Date.) |
| PL/SQL API | You can write a custom API to obtain a default value if the value cannot be obtained using other source types such as, the default order number from a sequence. Package--Enter the PL/SQL package name. Function--Enter the function name. Object--Optionally, enter the name of an object to be passed to this API. Attribute--Optionally, you can also enter the name of an attribute to be passed to this API. (See the PL/SQL API Procedure below.) |

9. Save your work.

Caution

If defaulting rules or conditions are updated, the Defaulting Generator concurrent program must be run to generate new defaulting packages.

- If you update an existing defaulting rule or condition from within the Defaulting Rules window and the update is saved, a pop up window will display a note reminding you to submit the Defaulting Generator concurrent program.
- Choose to submit the program by selecting Defaulting Generator from the Tools menu while within the Defaulting Rules window, or from the Order Management SRS window.
- To generate the Defaulting Generator concurrent program for an Entity, you must go to the Requests form and select your entity. This will happen rarely in a production environment, but when necessary, it is recommended that all users briefly log off the system while the entity package is being re-generated. Otherwise, you may encounter record locking constraints, and the defaulting package may not generate successfully. It is unlikely that users will need to log off the system when a package is being re-generated for an attribute only.

You may execute the Defaulting Generator concurrent program while users are still on the system, although the defaulting package may not generate successfully. This can be due to the package currently being called by other users who are processing orders on the system. Common errors within the output log file for this concurrent program may contain text that a time-out occurred while waiting to lock object.

If defaulting packages do not generate successfully, you must choose to run the program at a later time, or to have users briefly log off the system while defaulting packages are regenerated.

Defaulting Rule Example

Here is an example of a defaulting rule that you can define so that a specific *Price List* will default to the Sales Order Header window. You may also define a sequence (priority) in which you want Order Management to search for a Price List.

The default sequence can also be complex. For example

Look on an Agreement for a Price List, followed by the Invoice To Location, then the Ship To Location, then the Customer, and finally, the Order Type. If Order Management still does not find a price list for any of the source locations listed (Invoice-To, Ship To, Customer, Order Type), you can have a *Constant Value* default, such as *1998 USA Prices*, which you enter in the Value field of the Attribute Defaulting Rules window.

The table below corresponds to the example stated above.

Table 2–10 Example of Complex Default Sequence

| Sequence | Defaulting Sources | Source Field or Value |
|----------|-----------------------|--------------------------------|
| 1 | <i>Related Record</i> | Agreement.Price List |
| 2 | <i>Related Record</i> | Invoice To Location.Price List |
| 3 | <i>Related Record</i> | Ship To Location.Price List |
| 4 | <i>Related Record</i> | Customer.Price List |
| 5 | <i>Related Record</i> | Order Type.Price List |
| 6 | Constant Value | 1998 USA Prices |

Suggestion: Oracle Order Management does not recommend that you define any overly complex or recurring defaulting rules.

PL/SQL API Procedure

The signature of the PL/SQL API is:

```
p_attribute_code VARCHAR2)
return VARCHAR2
```

The table below describes Order Management entities, their associated entity code, and the database object called when the entity is processed within an Order Management.

Table 2–11 Order Management Entities, Entity Code, and Database Object Called

| Entity | Entity Code | Database Object |
|--------------|-------------|-----------------------|
| Order Header | HEADER | OE_AK_ORDER_HEADERS_V |
| Order Line | LINE | OE_AK_ORDER_LINES_V |

For example:

Function to default order number from a sequence based on the order type:

```
Function Get_Order_Number(p_database_object_name IN VARCHAR2,
    p_attribute_code IN VARCHAR2)
    return varchar2
IS
    l_header_rec OE_AK_ORDER_HEADERS_V%ROWTYPE;
BEGIN
    -- Getting the defaulting global record
    l_header_rec := ONT_Header_Def_Hdlr.g_record;
    -- for internal orders, use this sequence but for all other order types use the --
    sequence for STANDARD orders.
    if l_header_rec.order_type_id = 1 then
        return to_char(OE_INTERNAL_ORDERS_S.nextval);
    else
        return to_char(OE_STANDARD_ORDERS_S.nextval);
```



```
end if;  
END;
```

See
[Order Management Defaulting Rules](#)

Define Credit Checking Rules

Overview

The ultimate goal of Credit Management processes is to minimize the financial risk that your organization assumes as a result of day-to-day operations. Order Management's credit checking feature is the process by which orders are validated and released against your credit checking business rules. Using credit rules, system parameters, and credit profiles, Order Management credit checking verifies that your customer has a sufficient credit availability with your organization to allow orders to be processed and shipped in advance of payment.

Order Management enables you to perform credit checks on customer orders or order lines, and automatically hold orders or lines that violate your credit setup. Using Order Management credit checking effectively requires a complete understanding of the functional components as well as a careful consideration of timing and performance factors. For example,

- You can choose to perform credit checking automatically at pre-specified workflow events against real time transactional data or pre-calculated summary exposure amounts. Pre-calculated exposure amounts can be either:
 - Real time transactional data summarized at a specific point in time
 - Exposure amounts imported into Oracle Order Management exposure tables
 - Real time transactional data summarized at a specific point in time plus exposure amounts imported into Oracle Order Management exposure tables
- You can choose to perform credit checking across orders with different currencies within a single organization, specifying the currencies to include when calculating overall exposure amount
- You can choose to perform credit checking at the customer account level, across all operating units within your system

- You can choose to perform credit checking on external transactions utilizing the credit check processes and exposure balances maintained within Oracle Applications

Order Management Credit checking includes:

- Validating orders and lines against existing credit limits to enable continued flow through order and line workflows
- Placing credit holds at either the order or line level, including notifications to appropriate parties of credit holds
- The functionality to either manually release or schedule credit reassessment processes for order or line credit holds
- Approvals for orders that exceed credit limits
- Reporting and querying tools to effectively manage your credit processes and ensure credit holds are processed in a timely manner

Depending upon your business practices, you may not want to perform credit check for all orders, but rather only those orders that could pose a credit risk. Orders that could be exempted from credit check can be:

- Orders of a given type. For example, you may want to exclude staff sales or internal sales orders from credit checks. Credit checking rules are assigned to order types. While setting up order types, if the credit check rule fields are left blank, this would automatically exclude orders of that type from credit check.
- Orders for a given customer. For example, a manufacturer may wish to exclude all orders from its largest customer from credit check. With Order Management and Oracle Receivables, excluding a specific customer from a credit check can be achieved by disabling the Credit Check flag for this customer in the individual customer profile.
- Orders for a given class of customer. For example, a manufacturer may wish to exclude all orders from internal customers from credit check. You can group all your internal customers into one Customer Profile Class, and then set up credit checking rules to exclude that profile class of customer. With Order Management and Oracle Receivables, while setting up a customer profile class, you can disable the Credit Check flag. Customers that have this customer profile class assigned to them would then be excluded from credit check.
- Orders for a given customer billing address. For example, a manufacturer may wish to exclude orders that will be invoiced to one of its' largest customer corporate headquarters from the credit check process. With Order Management and Oracle Receivables, the individual bill-to sites can have a different

transaction profile from the parent customer. While setting up the bill-to site profile, enabling the Credit Check flag determines whether orders billed to that address will be credit checked.

- Order lines with a given payment term. For example, order lines with a cash on delivery payment term can be excluded from the credit checking process. With Order Management and Oracle Receivables, the payment terms also have a Credit Check flag. Disabling this flag will automatically exclude order lines with that payment term from the credit evaluation. Only those lines that have payment terms with credit checking turned on are compared against the credit limits.
- Order lines that are paid via Commitments. These lines are in effect prepaid, so you do not need to credit check them.
- Orders with payment type = *Credit Card*. These orders will have credit card authorization in place of credit checking.

When using Oracle Order Management to define your credit management policies, you should familiarize yourself with the following Oracle credit check concepts:

- Credit Profile
- Credit Check Rules
- Credit Usage Rules

Credit Checking Components

The Credit Check process can be performed for orders or order lines, and the determination on whether credit checking is performed is based upon all of the following:

- The credit check rule definition and the order type of which the definition is attached
- Order or line payment terms
- Enabled credit profiles

Credit Checking will only occur for an order or line when all three levels enable credit checking. If one level disregards credit checking, credit checking does not occur for the order or line.

Credit Exposure

When you perform credit checking in Order Management, you determine what type of exposure to use when determining credit worthiness. Order Management

enables you to perform credit checking against real time transactional data or current exposure amounts stored in exposure summary tables.

- Real time transactional data is all related transactions which are summarized at the point credit checking is invoked.
- Current (pre-calculated) exposure amounts can be either:
 - Real time transactional data summarized at a specific point in time *or*
 - Exposure amounts imported using the Credit Exposure Import concurrent program.

When defining your Credit Check rules, you specify the type of exposure to utilize when performing credit checking.

Credit Check Rule Definition

Credit Checking Rules within Order Management enable you to determine credit worthiness of orders when performing credit checking, and provide you with various options in determining your customer's credit exposure.

Credit Check Rules are attached to Order Management Transaction Types. Within the Transaction Type window, credit check rules are assigned to pre-specified workflow events that trigger the credit checking process. For example, you might want to perform a high-level credit check before booking, but you may want to apply more specific controls before shipping the product to your customer.

In Order Management, separate credit checking rules can be assigned for use at the time of booking, pick release and purchase release (for drop shipments), packing, or shipping within corresponding order or line workflow processes. You can also choose to perform credit checking at multiple points within an order or line workflow processes by selecting credit check rules for a combination of booking, pick release and purchase release (from drop shipments), packing, or shipping.

Order Management Credit Check Rules enable and control:

- Credit check level
- Credit check hold level
- Currency conversion type used during exposure calculations
- The exposure method used for validating credit checking
- Whether to include open receivables balances, uninvoiced order balances, freight and special charges, or taxes
- Hold management procedures

- Notifications of credit holds to appropriate personnel

See

[Credit Cards and iPayment](#)

Credit Checking Rule Level

The Credit Check process can be performed at sales order header or sales order line level. Additionally, the payment terms used for orders and order lines must be enabled for credit checking to occur. See Payment Terms.

1. **Order Header Level:** Order Level credit check uses exclusively header level information ignoring different bill-to sites detailed at line level. Order level credit check uses the credit profile attached to the customer Bill-to site defined at order (header) level. Credit checking will use order totals and will evaluate credit exposure against the credit profile attached at header level, and holds are always applied at header level.

Note: Sales Order header level credit checking enables backward compatibility with previous credit check versions.

2. **Order Line Level:** Line level credit check uses data at the sales order line level. If you have sales order lines that are attached to different Bill To sites and if you want to use the specific credit profiles attached to those Bill To Sites, you should use Sales Order Lines level credit check.

Additionally, you could use line level credit check when you have defined customer relationships in your system and you actively use them in Order Management. In this situation, you are able to create a sales order whose lines could be attached to different bill-to sites owned by different customers.

Credit Checking Rule Hold Level

You can choose to place credit holds for orders or lines that fail credit check validations at either the sales order or sales order line if you use order line level credit checking. Credit checking holds are automatically placed based upon your credit rule definition, and you can automatically release order or order line credit holds when a customer's credit exposure has been reduced to a point that enables credit checking validation to pass successfully. You automatically release credit holds by scheduling the Credit Check Processor concurrent program to run at specific intervals.

Credit Checking Rule Override Manual Release (check box)

In previous releases of Oracle Order Management, you had the ability to manually release order or line credit check holds that were placed by credit check process. However, no additional credit checking of manually released credit holds occurred.

You can now specify whether or not you wish to enable additional credit checking if an order or line credit check hold was released manually. The Override Manual Release check box, used in conjunction with Days to Honor Manual Release field, enables you to define the duration (number of days) you will forego additional credit checking if an order or line credit check hold is released manually.

Your Order Management Transactions Type definitions will control whether or not additional credit check processing can occur for manually released holds (credit check rules entered for booking, pick release and purchase release (for drop shipments), packing, or shipping within your transaction type definitions).

Credit Checking Rule Days to Honor Manual Release

This field, in conjunction with the Override Manual Release check box, enables you to define the duration (number of days) manually released holds will be honored and not overridden by additional credit checking processes.

For example, suppose you have defined a credit check rule in which you have enabled the Override Manual Release check box, with a value of 15 within the Days to Honor Manual Release field. Assume that this credit check rule is assigned to the transaction type as a credit check rule for booking and shipping. If you manually release an order or line from credit check hold after booking, and if you ship the order or order line within 15 days, Order Management will not enable credit checking to occur again. However, if you ship after Day 15, then Order Management will enable the credit checking process to be invoked again.

Credit Checking Rule Conversion Type

Conversion types for credit check rules enable you to model a fixed exchange rate between currencies or use an average exchange rate. When performing credit checking, the credit limit currency does not necessarily have to be the same as the functional currency. Conversion types are limited to the values you define within the Oracle General Ledger Conversion Rate Types window.

Credit Checking Rule Exposure

You can choose how you wish to validate credit worthiness during credit checking by determining the exposure method used.

Previous versions of credit checking calculated customer exposure accessing underlying transactional tables. When a credit check request was executed, underlying transaction tables were summed to generate customer balance information.

In order to improve performance, Oracle Order Management has incorporated an additional option, the use of pre-calculated exposure. Using this option, credit checking will validate exposure against balance information stored in a summary table. The summary table is updated as often as your business practices require, and updates to the table are performed by submitting a concurrent program. This program accesses both Oracle Receivables and Order Management transactional tables, and should be scheduled to run periodically, based on your specific business needs.

Credit Checking Rule Values to include within exposure calculation

Your credit checking rule definition can include or exclude the following credit related details when calculating credit exposure:

- Open receivables balances
- Uninvoiced order balances
- Freight and special charges
- Taxes
- Payments at risk

Credit Checking Rule Notifications

You can choose to send notifications whenever a sales order or order lines fails credit check. The notification is sent to the person who created the order.

Order Management Order Transaction Type

Order Management Order Transaction Types enable you to also control when credit checking occurs and the credit check rule to be utilized when calculating credit exposure (outstanding credit balance) by assigning credit check rules to Order Management Transaction Types.

When you assign a credit check rule to a transaction type within the Order Management Transaction Types window, you enable credit checking for all orders or order lines which use the order type. Select a credit check rule for an order type by selecting a credit check rule within the Booking, Pick Release and Purchase

Release (for drop shipments), Packing, or Shipping fields of the Credit Check Rule region.

You can assign the same credit check rule to a single function (field), multiple functions, or all functions, or use a different credit check rule for each function, depending upon your business needs.

Payment Terms

Payment Terms specify the due date and discount date for payment of an invoice. Payment terms also enable you to choose whether or not the payment term will be used for controlling credit checking. Each payment term can be enabled for credit checking by selecting the *Credit Check* check box for the payment term so you never unnecessarily perform credit checking.

All orders, except orders with a Payment Type of Credit Card are included when exposure calculations are performed, regardless of their payment terms. If an order is to be paid by credit card and has already been approved (approval date not null) it will never be included in exposure.

Credit Profiles

Credit profiles define the maximum financial risk you are willing to withstand on your regular operations. The Credit Check check box in the credit region of the Standard Customer window (for the customer master record) must be enabled in order to perform credit check. You can define the credit profile information at the following levels:

- **Customer and Customer Site:** This profile defines your credit policies for individual customers or customer sites. You can accept the default credit policies from a Customer Profile Class, or you can customize credit limits to fit the particular customer.

You can implement credit policy changes by modifying a Profile Class and cascading the changes to individual Customer Profiles. Check current limitations for multi-currency credit check set up.

- **Organization:** This type of Credit Profile is used to define an organization's (operating unit) credit policy for credit control and credit checking. It is used as a default when customer/customer site credit profile is missing.

Organization Default provides a higher level in the customer profile hierarchy (customer site - customer - organization default), and the fulfilled credit profile at operating unit level enforces credit checking for any customer which does not have credit limits defined at the customer or site level.

- **Item Category:** Item Category Credit Profiles enables you to define credit information by Order Management Item Category.

Item Category credit profile is completely independent from customer credit profiles. Item-category credit check will place a credit hold for transaction amounts over pre-defined category credit limits.

Item Category credit profiles can be used to model credit limits such as service line for insurance coverage which can prevent you from shipping materials that exceed a pre-defined monetary limit.

There is an embedded hierarchy provided by credit checking routines for establishing credit information between the following entities:

- Customer Site
- Customer
- Organization Default

When customer site and customer credit profiles do not exist, the Organization Default credit profile is used, if it exists.

Global Credit Checking

Oracle Order Management enables you to perform global (across multiple operating units) credit checking. Global credit checking ensures that all organizational data, irrespective of the operating unit, is considered during the credit checking process. You enable global exposure credit checking if you select the Global Exposure checkbox when defining Credit Usage Rules.

Global Credit checking is currently only enabled at the following levels in the credit checking hierarchy:

1. **Customer level credit checking:** Global credit checking will use the overall credit limit defined at the customer level for all operating units.
2. **Organization (org) Default level credit checking:** Global credit checking will use the overall credit limit defined at the organizational level for all operating units within the organization.

The credit check engine will identify the overall limit (which level within hierarchy) to utilize for credit checking, calculate the credit exposure for all the operating units, and then validate the calculated exposure against the overall credit limit selected.

Multi-currency Credit Check

You can perform multiple currency credit checking by sharing credit limits across currencies you specify.

With Single currency credit check you must define a credit limit profile in each currency if you want to control your customer exposure in that currency. In other words, every currency is treated individually for credit check purposes.

With Multi-currency credit checking, you need to define just one credit profile (i.e. in US dollars) and share it among the other currencies.

Multi-currency Terminology

Usage Rule Sets: Usage rule sets define the set of currencies that are involved in a specific credit check process. A usage rule set specifies which transactions (based upon transaction currency) qualify for use with a credit limit.

Usage Rule Sets can be assigned to a customer profile class, or credit profiles: customer, customer site, item category, or organization. If you do not assign a credit usage rule set to your credit profiles, then the credit checking is performed as Single currency credit check.

Support for Credit Checking External Transactions against exposure balances maintained within Oracle Order Management (OE_EXTERNAL_CREDIT_PUB)

With this release, Order Management enables you to perform credit checking of external amounts utilizing the Oracle credit check process and exposure balances maintained within Order Management. The API essentially perform the same credit checking process as the Order Management credit check engine except for the differences listed in the table below:

Table 2–12 OM Credit Check Engine vs. Check External Credit API

| OM Credit Check Engine | Check External Credit API |
|---|---|
| Validate if the item categories flag is enabled for the credit check rule. If, enabled, perform item category credit check for each item category of the sales order. | Item category limits will not be checked. The API will give an error if the credit check rule has the item categories flag enabled. |

| OM Credit Check Engine | Check External Credit API |
|---|---|
| Check that the Credit Check flag is specified for the customer profile and payment term. If either of these items are not enabled, do not perform credit check for the sales order. | Ignore the Credit Check flag setting at the Payment term. Only the Credit Check flag specified at the default/customer/site credit profile is validated to see if credit checking will be performed. For anything else, it is assumed that credit check is needed when the API is called. It is up to the calling program to determine credit check should be done or not. |
| The credit check level (order / line) selected for the credit check rule setup determines what level the credit engine will perform. | The API will only allow credit check rules that utilize order level credit checking; the API does not support line level credit checking and will error out if a line level credit checking rule is provided. |
| If the Send Holds Notification check box is enabled for the credit check rule, the credit check engine will send a workflow notification to the creator of the sales order when a credit hold is placed on the sales order. | The API will not send any notifications. It will ignore the Send Hold Notifications flag set at the credit check rule. |
| When an order fails credit check, it is placed on credit check hold. The hold contains the reason for the failure. | When an order fails credit check, a reason is returned to the calling program in addition to the Failure result. It is up to the calling program to take appropriate action, such as placing the sales order on credit check hold. |

Given a credit check rule, a bill-to site, and the transaction amount and currency, the API will credit check the amount against the credit limits and exposure within Oracle Applications and return the result of the credit check. The calling routine then can perform the appropriate action depending on the result of the check.

You must create a custom program that can execute PL/SQL procedures to utilize the Check External Credit API. For each sales order in the external system, a call will need to be made to the Check External Credit API to credit check against the exposure data stored inside Oracle Order Management. Prior to executing the call, ensure the following:

- Group all the lines for the external transaction into a single amount and single currency, along with the credit check rule to utilize
- Determine appropriate customer (Bill To site) within Oracle Applications to associated your external transactions with

The API will return the result of the credit check.

Depending on the result of the check, the custom program can take the appropriate action for the sales order such as place a credit hold on it.

See

[Credit Cards and iPayment](#)

Defining Credit Profiles

Organization Credit Profiles are a set of criteria that define an operating unit's credit policy for credit control and order credit checking. Credit Profiles include the credit limit and pertinent data needed to determine total credit exposure for orders undergoing credit checking.

Credit Profile Limits Hierarchy when performing credit checking:

- Customer Site Profile
- Customer Credit Profile
- Operating Unit Default Credit Profile

Note: Item Category Credit Profiles are used if you enable Item Category Credit Check for a credit check rule.

The Credit Profile window enables users to create and maintain credit information for Operating Units and Item Categories.

Operating Unit Default Credit Profiles can assist in further defining your credit policies by providing global defaults if no other information is present during credit checking.

To create a new credit profile, users must specify what type of credit profile to create, and depending on the credit profile type chosen, appropriate fields within the window become updatable or non-updatable.

ATTENTION:

- You cannot define Credit Profiles for Customer or Customer Site by directly navigating to the Credit Profile window.
 - Credit Profiles for Customer and Customer Sites are initially defined when entering credit information in the *Credit* section of the *Profile-Transactions* tab of the Customer and Customer Site windows. See Oracle Receivables, [Customers](#).
 - You must then assign a Credit Usage Rule to your Customer or Customer Site if you want to enable multi currency credit check.
-

Credit Profile Types

- Customer: Enables you to define credit limits by currency for Customers.
- Customer Site: Enables you to define credit limits by currency for Customer Sites.
- Operating Unit Default: Enables you to set credit limits and terms, by currency, within a given operating unit.
- Operating Unit Default Credit Profiles enable you to effectively enforce a formal credit checking process for all order transactions/currencies from any customer, provided you define an Operating Unit Default Credit Profile for each currency you process order transactions for.
- For example, if a transaction is entered and no credit limits exist at the customer or customer site levels for the specified order currency, the Operating Unit Default Credit Profile for the transaction/currency entered will be used to determine credit availability.

Note: The Operating Unit Credit Profile is used as the default profile for all customers that do not have an individual credit profile either at customer or site level.

- Item Category: Enables you to set order credit limits, by currency, for one or more Item Categories. This type of profiles enables you to specify limits for the maximum amount on each order for an item category irrespective of a customer or site.

Note: Only categories associated with the default category set for the Order Management functional area are supported.

Unlike the Operating Unit Default Credit Profile that defines credit limits for specific operating units, Item Category Credit Profiles are applicable *across* operating units. Item Category profiles are global credit profiles and are transaction currency based: the credit limits defined for an item category are for individual transactions (orders) only. There is no overall system credit limit for a category.

Item Categories enable you to set order credit limits/profiles for one or more item category (applicable for all customers). For example, an Item Category Credit Profile can specify that the maximum order value cannot exceed \$10,000 USD for any order lines that contain an item associated with the Item Category *Computers*. This is extremely useful if your business practice requires item-based insurance coverage.

To define Credit Profiles:

1. Navigate to the Define Credit Profiles window. The

Figure 2–17 Credit Profiles Window

The screenshot shows the 'Credit Profiles' window with the following fields and values:

- Profile Section:**
 - Credit Profile Type: Operating Unit Default (dropdown)
 - Operating Unit: Vision Operations (text)
 - Effective Date From: 01-DEC-2001 (text)
 - Item Category: (disabled text field)
 - Effective Date To: 25-DEC-2001 (text)
 - Enabled: ☒ (checkbox)
- Credit Section:**
 - Credit Rating: (text field)
 - Tolerance: 0 (text field)
 - Next Review Date: (text field)
 - Credit Check: ☒ (checkbox)
 - Credit Hold: ☐ (checkbox)
- Currency Credit Limits Section:**

| Currency | Order Credit Limit | Overall Credit Limit |
|----------|--------------------|----------------------|
| EUR | 20,000.00 | (disabled) |
| JPY | 0.00 | 0.00 |
| USD | 1,500.00 | 3,000.00 |

Assign Rule Sets (button)

2. Select a value for your Credit Profile Type in the *Credit Profile Type* field. Valid Values are
 - Item Category
 - Operating Unit Default

Based upon the Credit Profile Type you chose, certain fields become protected or non-updatable.

Note:

- If Credit Profile Type = Operating Unit Default, the Item Category field is disabled.
 - If Credit Profile Type = Item Category, the Overall Credit Limit field is disabled.
-
-

Enter remaining fields that require a value, or update any fields that contain a default value based upon the Credit Profile Type selected:

- **Operating Unit:**

Select an Operating Unit name from a list of values if you are defining a Operating Unit Default Credit Profile.

- **Item Category:**

Select an Item Category name from a list of values if you are defining an Item Category Credit Profile.

- **Effective Date From/ Effective Date To:**

Select the Effective Date From and Effective Date To for your Credit Profile.

Note: When defining Credit Profiles for Operating Unit Default and Item Category, the Effective Dates From/To cannot overlap previously defined Credit Profiles for the same Operating Unit Default or Item Category, regardless of the currency.

- **Tolerance:** Enter a numeric value in the Tolerance field. Tolerance values are used to calculate extended exposure limits during credit checking.

For example, supposed you enter a value of 5 for *Tolerance*, and an Credit Limit of \$10,000 USD. During credit checking, the exposure credit limit would actually be \$10,500 USD. $((\text{Tolerance} + 100) * \text{Credit Limit} / 100)$.

- **Currency:** Select a value in the Currency field to limit the Credit Profile to a specific currency.
- **Order Credit Limit:** Enter a value in the Order Credit Limit field, based upon the Credit Profile Type. New orders may not exceed the value entered in the Order Credit Limit field if the checking processing defaults to the operating unit level.
- **Overall Credit Limit:** Enter a value in the Overall Credit Limit field for a a Operating Unit Default Credit Profile Type. Total exposure within an operating unit for the particular customer may not exceed the value entered in the Overall Credit Limit field if credit checking processing defaults to the operating unit level.

The following fields are for future use and are for information purposes only. Values that are ignored during the credit checking process are:

- Credit Check
 - Credit Hold
 - Credit Rating
 - Next Review Date
3. If you wish to enable multi currency credit check, you must assign Credit Usage Rule Sets to your Credit Profile. Select the Assign Rule Set button. The Assign Rule Set button is only enabled for the following Credit Profile Types:
- Item Category
 - Operating Unit Default
- To assign Credit Usage Rules to Customer or Customer Sites Credit Profile Types, you must use the Assign Credit Usage Rules window.
4. Save your work.

See

[Credit Cards and iPayment](#)

Defining Credit Usage Rule Sets

The Define Credit Usage Rules window enables a user to create and maintain credit usage rule sets that can be assigned to Credit Profiles.

Credit Usage Rule Sets define the set of currencies that will share a predefined credit limit during the credit checking process, and enable the grouping of currencies for global credit checking. Usage Rules Sets ensure that if credit checking is enabled, that all transactions for specified currencies go through the currency conversion process and are summarized by currency prior to the credit checking process.

- You can define a usage rule set for a single currency or multiple currencies
- You can choose to assign a global usage rule (all currencies) and then exclude one or more currencies from the rule set
- You can choose to define multiple usage rules for multiple currencies within the usage rule set
- You can choose to add or delete new Currency records for an existing Usage Rule Set

Usage rule sets consist of *at least* one usage rule/currency combination, and once a rule set is assigned to an Oracle Entity, the rule set provides processing defaults for determining credit availability during multiple currency credit checking processing routines.

To define credit usage rule sets:

1. Navigate to the Define Credit Usage Rules window.

Figure 2–18 Define Credit Check Usage Rules Window

2. Enter a name for you rule set in the Usage Rule Set Name field.
3. Select the Global Exposure check box if you wish to enable the Usage Rule Set for global exposure (across operating units). The default value for this check box is un-checked (do not enable Global Exposure for the usage rule set).

If you are unable to select the Global Exposure check box, submit the Credit Limit Usages Report. Review the report output and un-assign any usage rule sets with different Global Exposure options for the same credit profile.
4. Select the value Currency in the Usage Type field.
5. Enter a currency in the Currency field.

The Currency field can contain any Currency Code currently defined. The Currency field may also use the lookup All Currencies to indicate the usage rule is for all currencies defined.

6. Chose to exclude a specific currency for your usage rule by selecting the Exclude check box. The default is unchecked, or No.

Note: If the field Currency has value of All, the Exclude check box is non-updateable.

7. Save your work.

See

[Credit Cards and iPayment](#)

Attention:

Given a customer with the following credit profiles:

- FRF (french francs) credit limit
- EUR (euro) credit limit assigned to a european set of currencies that includes FRF (using the new multicurrency feature - usage rule sets)

The credit checking process for a transaction in FRF is determined by the credit check engine; perform multi-currency credit check if a Credit Usage Rule Set assignment has been defined.

Assigning Credit Usage Rule Sets

The Assign Credit Usage Rules form enables a user to assign credit usage rules sets for multiple currency credit checking to Credit Profiles.

To assign credit usage rules:

1. Navigate to the Assign Usage Rules window.

Figure 2–19 Find Credit Profiles Window

The screenshot shows a window titled "Find Credit Profiles". Inside, there is a dropdown menu labeled "Credit Profile Type" with the selection "Customer/Customer Site". Below this menu are five text input fields: "Profile Class", "Customer", "Bill To Site", "Operating Unit", and "Item Category". The "Currency" field is a small button. At the bottom of the window are two buttons: "Find" and "Clear".

Find Credit Profiles Window

Before you can assign a Usage Rule Set to a Credit Profile, you must first select the Credit Profile Type and then locate the corresponding Credit Profiles.

Certain query processing logic has been disabled within the Find Credit Profiles window;

- If the value of the Credit Profile Type field is Profile Class, then fields Operating Unit, Customer, Bill To Site, and Item Category are disabled.
- If the value of the Credit Profile Type field is Customer, then fields Profile Class, Operating Unit, and Item Category are disabled.
- If the value of the Credit Profile Type field is Operating Unit Default, then fields Profile Class, Customer, Bill To Site, and Item Category are disabled.
- If the value of the Credit Profile Type field is Item Category, then fields Profile Class, Operating Unit, Customer, Bill To Site, and Overall Credit Limit fields are disabled.

Once you have entered your search criteria, select the Find button to either locate your existing credit profile usage rules or to define new usage rules for an existing profile.

Figure 2–20 Assign Credit Usage Rules Window

| Rule Set Name | Included Currencies | Excluded Currencies | [] |
|---------------|---------------------|---------------------|-----|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

2. The data appearing in the upper region of the window defaults from the Credit Profile you have queried. This information is protected against update.
3. The multi-row section of the Assign Usage Rules window enables you to select Credit Usage Rule Sets to use with the credit profile.

You select a Name from the List of Values, and the included and excluded currencies fields will display currencies that the usage rule set consists of. These values are protected against update from this window.

For detailed field information, see *Defining Credit Profiles*, Step 3 and 4.

4. Save your work.

Note:

- Upon saving your usage rule assignments, a message is displayed to ask if you wish to cascade changes to usage rule assignments for existing customers with the Customer Profile Class you are saving.
 - New customers created using Customer Profile Classes with previously defined credit usage rules do not automatically inherit the Customer Profile Class usage rule assignments. You must manually create these assignments.
-
-

See

[Credit Cards and iPayment](#)

Defining Credit Check Rules

Overview

Order Management credit check rules enable you to determine what credit checking criteria is used when determining credit exposure during the credit checking process. Order Management transaction types determine when credit checking actually occurs, and when used in conjunction with credit checking rules, define your credit checking process.

For example, you can define credit checking rules that utilize pre-calculated exposure information to use when comparing a customer's current order amount against their overall exposure; if the order transaction type utilizes this rule, and the order fails during the credit check process, it is automatically placed on credit check hold. You can define as many credit checking rules as you need, and if you inactivate a credit checking rule, you also must remove it from any order types that use it.

Additionally, you can include in or exclude from your credit check rule some or all of your open accounts receivable balances, and some or all of your uninvoiced orders.

Order Management uses the currency of the order you are credit checking to determine which credit limits to use in credit checking calculations. Order Management only includes orders and invoices in the same currency as the order you are credit checking when calculating a customer's outstanding credit balance, unless you have set up multiple currency credit checking.

Besides defining your credit exposure composition, the credit check rule also determines:

- Credit check level (order or line)
- Credit Hold level (order or line)
- Conversion type used when you enable multi-currency credit check
- Use of item category credit check
- Send hold notifications to the sales order creator
- Use of pre-calculated exposure

Performance Note In order to improve performance you can enable the use of pre-calculated exposure. Utilizing this option, the credit check engine will use summary balance details stored in a periodically updated summary table.

The update is done by running a concurrent program which accesses Order Management and Account Receivable transactional tables. This program should be scheduled to run periodically based on your specific business needs. You should also run this concurrent program when you have done major changes in your set up or transactional data (merge customers, incorporate transactions from external systems, change transaction status using customized programs, etc.).

To define a credit check rule:

1. Navigate to the Credit Check Rules window.

Figure 2–21 Credit Check Rules Window

2. Enter a name for your credit check rule.
3. Optionally, enter the Effective Dates for your rule.

Options Tab

4. Select the entity to perform credit checking against for your rule. Select from:
 - Sales Order
 - Sales Order Line

Note: If you select Sales Order Line as your credit check level, the Use Pre-calculated Exposure check box will be checked and protected against update

If you choose to perform credit checking at the Sales Order level, you are limited to the system generating header level credit holds only. The Credit Hold Level field will default to Sales Order and is protected against update.

5. Select the Credit Hold Level for your credit rule. Select from
 - Sales Order: Sales Order (order level) credit check is performed for the header Bill To site. Sales Order level credit checking provides backward compatibility

with previous credit check versions. When credit checking rules are defining using Sales Order as the credit check level, the credit check engine will examine order totals and evaluate credit exposure against the credit profile attached at header level

Holds will be always applied at header level.

Use order level credit check when order lines always have the same Bill To Site as the Order Header.

- Sales Order Line: Sales Order Line (line level) credit check is performed against order line Bill To Sites. The credit check engine will group all order lines belonging to the same Bill To Site and check available credit for each specific Bill To Site. When an order line fails credit check, any remaining lines grouped with the same Bill To Site are placed on hold.

Holds can be placed at either the order or order line level when you use line level credit checking.

Use line level credit check when sales order lines are attached to different Bill To Sites and you want to use the credit profile defined at that level. Additionally, you can use line level credit check when you have defined customer relationships within your system and actively use them within Order Management. Using customer relationships, you can create sales orders with order lines attached to different Bill To Sites owned by different customers.

Order Header level credit checking uses header level information ignoring different bill-to sites detailed at the line. Credit Check uses the credit profile attached to the customer Bill-to site defined at order (header) level. Credit checking at the Order Header level will use order totals and will evaluate credit exposure against the credit profile attached at header level, and holds are always applied at header level.

Special Considerations for Credit Hold Level

- If you update the Credit Hold Level from Sales Order to Sales Order Line, a pop up dialog box will display a message indicating that existing sales order credit holds will need to be released manually. Select Yes to continue or No to not commit the update.
- If you update the Credit Hold Level from Sales Order Line to Sales Order, a pop up dialog box will display a message indicating that existing sales order line credit holds will not be released automatically. Select Yes to continue or No to not commit the update.

6. **Override Manual Release check box:** This checkbox enables an order or line which had failed credit checking and then was subsequently manually released to be eligible for additional credit check processing. Select from:
 - **Yes:** Manual Released Holds will be overridden. You must also enter a value within the Days to Honor Manual Release field.
 - **No:** Manual Released Holds will be honored. The field Days to Honor Manual Release will be non-updatable.
7. **Days to Honor Manual Release:** The field is used in conjunction with the Override Manual Release check box. If you enable the Override Manual Release check box, you must enter a numeric value greater than zero within this field.

Manual Released Holds (Credit Checking Procedures)

Each time a credit check failure occurs for order or order line, the corresponding order or order line is placed on credit check hold. However, prior to the credit check holds actually being applied, the credit check process determines:

- If a manually released credit check hold exists *and*
- If your credit check rule enables override of manually released holds (in conjunction with the value for Days to Honor Manual Release).

If Override Manual Release is not enabled for your credit check rule, then manually released holds are honored and no additional credit checking will occur.

If Override Manual Release is enabled, the credit checking process will validate if the release date is within the interval defined by the value of Days to Honor Manual Release. If the value is within the range defined, then manually released holds will be honored and additional credit checking is not performed. If the value is not within the range defined, credit checking can occur again and credit check holds can be applied if the order or lines fails the credit check process.

Note: The value of OE_HOLD_RELEASES.CREATION_ DATE is used by the credit check process to determine if the duration defined for the credit check rule is within range for additional credit checking: when any hold is released for an order or line, Order Management inserts a record within OE_HOLD_RELEASES.

8. Select the conversion type to use when performing credit checking using your credit rule. The LOV for this field is limited to the values you define within the Oracle General Ledger Conversion Rate Types window.
9. Select the Check Item Categories check box for your credit rule if you wish to perform credit checking for sales orders by Item Categories defined for Order Management.
10. Select the Send Hold Notifications check box if you wish to send hold notifications whenever a credit hold is placed for a sales order or order line. The notification is sent to the creator of the order.

Determine the type of credit exposure to use when defining your credit check rules by selecting the Exposure Tab within the Define Credit Check Rules window.

Figure 2–22 Define Credit Check Rules Window

The screenshot shows the 'Define Credit Check Rules' window with the 'Exposure' tab selected. The 'Rule' field is set to 'Booking' and the 'Effective Dates' field shows '01-JAN-2001'. The 'Exposure' tab contains several checkboxes and input fields:

- ☐ Use Pre-Calculated Exposure
- ☐ Include External Credit Exposure
- ☒ Include Open Receivables Balance
- ☒ Include Payments at Risk
- ☐ Include Uninvoiced Orders
- ☐ Include Freight and Special Charges
- ☒ Include Tax
- ☒ Include Orders Currently On Hold

Additional input fields include 'Open Receivables Days', 'Scheduled Shipping Horizon Days', and 'Maximum Days Past Due'.

Exposure Tab

11. Select the Use Pre-calculated Exposure check box for your credit rule if you wish to perform credit checking against pre-calculated exposure summary tables.
- When the first credit check rule that has the Use Pre-Calculated Exposure check box checked is successfully saved, the following message will display:

This credit check rule uses pre-calculated exposure. Please run the Initialize Credit Summaries program to update the pre-calculated data.

- If the Use Pre-calculated Exposure check box is checked and the Include Open Receivables balance check box is checked, then Open Receivables Days is protected against update and is NULL.
 - If the Use Pre-calculated Exposure check box is checked and the Include Uninvoiced Orders check box is checked, then Shipping Horizon Days is protected against update and is NULL.
12. Select the Include External Credit Exposure check box if you wish to include external exposure details imported into Order Management during the credit checking process.

When an Oracle Order Management sales order is credit checked, the exposure data from the external system is included in the overall exposure check. The default value for this check box is un-checked (exclude external exposure details when performing credit checking).

Receivables Balance Region

13. Select the Open Receivables Balance check box for your credit rule if you wish to include open receivables balances.

You must enable either the Include Open Receivables Balance check box or the Include Uninvoiced Orders check box in your credit check rule. You can activate both, but you cannot toggle both off.

If you select both the Pre-calculated Exposure and Open Receivables Balance check boxes, you are unable to specify Open Receivables Days.

14. If you enabled Include Open Receivables Balance in your credit check rule, you can indicate whether to Include Payments at Risk when calculating a customer's outstanding balance.

Receipts at risk are remitted receipts that have not been cleared, or discounted (factored) receipts that have not been risk eliminated. If the performance of credit checking requires improvement you can toggle off this option.

15. If you enabled Include Open Receivables Balance, enter a value to indicate the range of dates for open receivables you wish to include for your credit check rule.
- **Negative Number:** Includes past due, current, and future open receivables up to X days beyond the current date

- Positive Number: Includes open receivables with invoice dates X days earlier than the current date
- No Value: Includes all open receivables

Uninvoiced Orders Region

Note: If you do not select the *Include Uninvoiced Orders* check box, you cannot select any check boxes within the region.

16. Select the *Include Uninvoiced Orders* check box if you wish to include uninvoiced orders for your credit rule.

If you enabled Include Uninvoiced Orders:

- Indicate whether to include Freight and Special Charges for uninvoiced orders when performing credit checking.

Select the Freight and Special charges check box to include Freight and Special Charges.

- Indicate whether to include Tax information for uninvoiced orders when performing credit checking

Select the *Tax* check box to include Tax information for uninvoiced orders. Credit checking calculations on open receivables always include tax amounts and are not affected by the Include Tax option. If the performance of credit checking requires improvement you can toggle off this option.

- Indicate the number of scheduled shipping horizon days for your credit rule for uninvoiced orders to be included in your total credit exposure when performing credit checking.

For example, if you enter 45, the total exposure includes only uninvoiced orders scheduled to ship within 45 days of the current date. Orders scheduled to ship after 45 days are not included when calculating exposure.

Note: If the Use Pre-calculated Exposure check box is checked, Scheduled Shipping Horizon Days is protected against update.

- Indicate whether to Include Orders Currently On hold. Select the Include Orders Currently On hold check box to include orders on hold within the exposure calculation for your credit rule.

17. Indicate the Maximum Days Past Due.

The *Maximum Days Past Due* field value specifies the number of day that you will allow an invoice to be past due before holding the customers orders. During the credit checking process, Order Management will verify that no invoices for the customer have been past due beyond the number of days you specified with this field. If there are any such past due invoices, the order is placed on credit hold.

18. Save your work.

See

[Credit Cards and iPayment](#)

Deactivating Credit Checking

There are three ways to deactivate Credit Checking on an order:

- Use an order type that does not have an assigned credit rule
- Define the Customer Profile so that the Credit Check check box is not checked
- Use payment terms for which the Credit Check check box is not checked

Deactivating Credit Checking does not automatically release orders previously on credit hold. However, the next time you attempt to Book, Pick Release or Purchase Release (for drop shipments), Pack, or Ship Confirm an order which utilizes a Order Management Transaction type that enables credit checking to occur at the specified order points, or you perform an order change that trigger credit checking in the Sales Orders window, Order Management will releases the credit check hold if the order or line meets the requirements for successful credit check.

See

[Credit Cards and iPayment](#)

[Orders](#)

[Hold Management](#)

iPayment Processing

Order Management provides you with the ability to record credit card information through the Sales Orders window and obtain authorizations for credit card

transactions using Oracle iPayment. You can also set up the security feature to mask confidential card holder information.

Order Management tracks the following credit card information at the order header:

- Credit card numbers
- Credit type
- Credit card holder's names
- Expiration dates
- Payment types and methods
- Authorization codes and amounts

Attention: iPayment processing can only occur if you are using an order type that has a credit checking rule and the rule will perform the authorization at Booking or Shipping.

Risk Management

iPayment offers a risk management feature to identify high risk transactions by Oracle iRisk. This feature enables merchants and e-commerce service providers to manage the risk when processing transaction through the internet. Oracle iRisk enables you to define any number of risk factors to verify the identity of your customers, assess their credit rating, and manage risk in a secure on-line environment.

You will receive the customer's risk score, which is based on the risk factors, scores, and formulas that are setup in Oracle iRisk. The risk factor calculations are dependent on the OM: Risk Factor Threshold for Electronic Payments profile option.

See

[Profile Options](#)

If the risk factor score exceeds the risk score threshold, the order is automatically placed on hold. High risk holds include credit card authorization and high risk failures. If a customer's transaction receives both authorization failures, the authorization failure hold will be applied. Both hold types can be removed manually and the order will continue through the order cycle process.

Order Management authorizations use the default risk formula that you have set up in iPayment. Below is a list of risk factors that can be used by iPayment:

- Payment amount
- Time of purchase
- Payment history
- Frequency of payments
- Transaction amount limit
- Ship To and Bill To addresses

Quantity Changes and Cancellations

Authorizations occur at the sales order header for the total order amount less any amounts covered by commitments. Return lines are not included in the order amount to be authorized.

When an authorized order is changed, iPayment Processing re-authorizes the credit card if the existing authorization has expired. Estimated expiration of the authorization is calculated as the authorization date plus the value of the OM profile OM: Estimated Authorization Validity Period. Actual expiration of authorization varies by card issuer and cannot be accurately determined by iPayment or Order Management. Because these incremental amounts may not be authorized, you might not be able to collect those funds.

To perform authorization of these incremental amounts, do either of the following:

- Enter a new order for the additional items or quantities.
- Use action Authorize Payment. This process reauthorizes the full order amount and may result in a understating of the customer's open to buy balance on their credit card.

Manual and On-line Authorizations

You can choose to obtain manual authorizations and enter the authorization code in the Authorization Code field in the Sales Orders window.

Security

Order Management enables you to mask cardholder information including credit card numbers and authorization codes by setting the OM: Credit Card Privileges profile option. Only the last four digits of the credit card number are displayed if

the profile option is set to Limited or None. If the profile option is set to All, the full credit card number is displayed.

Drop Shipments

Order Management provides the ability to obtain credit card authorizations for drop shipments. Authorizations are obtained at the booking and purchase release activity of the drop shipment order.

See

[Drop Shipments](#)

[Credit Cards and iPayment](#)

Defining Automatic Holds

You can define holds to halt processing of your orders, returns, and their lines. Because orders and returns are not affected by holds until they are applied, you can define all the holds you use in your business at once. You can define holds that are effective only at certain steps of the order or line workflow and holds that apply regardless of the stage in the order's flow.

For example, you may want to apply an item hold to prevent order lines for a particular item to be released for shipment. Any orders that are not ready for shipment or any orders that have already been shipped are not affected by this hold. You can also define a hold that affects all orders, no matter where the order is in its cycle. When this type of hold is applied, it is effective regardless of the order's position in the cycle.

For each hold, you can specify hold security by responsibility to control which responsibilities have authority to apply and/or remove the holds you define. Holds can be defined to be specific to pick, pack, ship, or invoice interface activities.

Order Management Hold database tables are striped by organization ID. Therefore, you will need to define holds for each operating unit within your enterprise structure. However, hold type quickcodes only need to be defined once.

The table below describes Order Management seeded Hold Names, the associated Hold Type, and a description of the hold source.

Table 2–13 Order Management Seeded Hold Names and Associated Hold Type and Description of the Source

| Hold Name | Hold Type | Description |
|---|----------------------------|--|
| Configurator Validation Hold | Configurator Validation | Automatically applied to order lines that fail Configurator Validation. |
| Credit Card Authorization Failure | Electronic Payment | Automatically applied to orders if credit card authorization request to iPayment fails. |
| Credit Card High Risk | Electronic Payment | Automatically applied to orders if risk score determined by iPayment is greater than the value of profile <i>OM: Risk Factor Threshold for Electronic Payments</i> . |
| Credit Check Failure | Credit Check | Automatically placed if credit check rule evaluation fails on orders setup to be credit checked. |
| GSA Violation | GSA Violation | Automatically placed on orders which are in violation of GSA. |
| NO pre-defined hold name for this hold type | Order Administration Hold | Reserved for you to define administration holds based on your business processes. |
| Denied Parties Hold | Import / Export Compliance | This hold is applied when an order fails denied party screening |
| Embargo Hold | Import / Export Compliance | This hold is applied when an order fails export compliance for with the Ship To or Ship From (embargo countries) |
| ePayment Failure Hold | Electronic Payment | This is for expected errors returned by ipayment like invalid data |
| ePayment server Failure Hold | Electronic Payment | This is for unexpected errors returned by Oracle iPayment, for example a failure to connect to the server. |
| License determination Hold | Import / Export Compliance | This hold is applied when an order fails export compliance screening. |
| Pending Process Payment Hold | Electronic Payment | This is applied when process payments is deferred. |
| Promotional Line | Promotional Hold | Automatically placed on lines which exceed a soft modifier promotional limit. |

| Hold Name | Hold Type | Description |
|-------------------|------------------|--|
| Promotional Order | Promotional Hold | Automatically placed on orders which exceed a soft modifier promotional limit. |

*Promotional Line/Order Holds functionality is only available if you have licensed and installed Oracle Advanced Pricing.

To define a generic hold:

1. Navigate to the Holds window.

Figure 2–23 Holds Window

Holds

Name:

Description:

Type:

Workflow Item:

Workflow Activity:

☐ Hld Included Items

Effective Dates: -

Authorizations

| Responsibility | Authorized Action | Effective Dates | | |
|------------------------------------|-------------------|-----------------|----|--|
| | | From | To | |
| Order Management Super User, Visio | Apply Hold | 03-OCT-2000 | | |
| Order Management Super User, Visio | Remove Hold | 03-OCT-2000 | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Generic holds are placed at the order level. Order lines are considered implicitly on hold for an order that has a generic hold against it.

You will not see hold information for generic holds at the order line level, only at the order header.

2. Enter the Name and Description for the hold you want to create.
3. Select a valid Hold Type. Hold Types are defined using the Order Management Quickcodes window. See: Quickcodes
4. Workflow Item: Leave this field blank for generic holds.
5. Workflow Activity: Leave this field blank for generic holds.
6. Optionally, enter the Effective Dates for the hold to control when you can use this hold.
7. Optionally, determine which user responsibilities have authority to apply and/or release holds by entering combinations of responsibilities, authorized actions, and effective dates.

You can give some responsibilities the authority to apply a hold, other responsibilities the authority to release it, and others the authority to do both. If you do not specify a responsibility for a hold, any responsibility can apply or release it.

8. Save your work.

To define an activity-specific hold:

1. Navigate to the Holds window.
2. Enter the Name and Description of the activity-specific hold you want to create.
3. Select a valid activity-specific hold Type.

Order Management provides two standard hold types that are used for the GSA and Credit Checking features: GSA Violation Failure and Credit Check Failure. Order Management also provides the Configurator Validation hold type, which is used if you invalidate a configuration after booking and an order administration hold. Hold types are also provided for import/export compliance, ePayment and promotional limits. Define other hold types using quickcodes.

4. Select the Workflow Activity for the hold.

The workflow activity determines where in the order process the hold will be applied. At the line level, All other lines will be processed except for the line for which the hold is effective.

The LOV for this field is determined by the value selected for the field Workflow Item. This field is required if you have entered or selected a value within the Workflow Item field only.

For example, you can define a hold that prevents an order line from being released for picking by entering Pick Release in this field. The hold takes effect as soon as an order line that meets your hold criteria is eligible for Pick Release.

5. If you want included items of a configurations option class the included items may have had a hold placed against it to be included in the applied hold. This is an optional feature based on your specific business requirements.
6. Optionally, enter the Effective Dates for the activity-specific hold to control when you can use this hold.
7. Optionally, determine which user responsibilities have authority to apply or release activity-specific holds by entering combinations of responsibilities, authorized actions, and effective dates.

You can give some responsibilities the authority to apply a hold, other responsibilities the authority to release it, and others the authority to do both. If you do not specify a responsibility for an activity-specific hold, anyone can apply or release it.

8. Save your work.

See

[Hold Management](#)

Overview of Attachments

Order Management provides you with attachments features to:

- Include attachments with orders and order lines
- Include attachments with order returns and order return lines
- Add free form text to the Sales Order Acknowledgement Report

Defining Documents for use by the Attachment feature

Using standard Oracle Application Attachment functionality, you can define and set up standard or one time documents with or without attachment addition rules. These documents can later be attached to your orders or order lines using the Attachments window or automatically by specifying attachment addition rules. You can add free form text to your orders, order lines, returns, and return lines as attachments, and you can also copy standard documents and modify them into one time document attachments. You may also translate documents to the language of your choice.

Applying Attachments

You can automatically apply standard attachments to orders and returns based on the attachment addition rules you define. You can also apply attachments manually by selecting the Actions button and then selecting Apply Automatic Attachments within the Sales Orders or Order Organizer window.

If you wish to enable the automatic attachment functionality, you must set profile option OM: Apply Automatic Attachments to Yes. However, if an order or return is modified, attachments must be reapplied manually, by the method mentioned above.

Editing Attachments

You can edit existing attachments by the following methods:

- Via the Sales Order or Order Organizer window by choosing the Attachments icon from the toolbar, and then modifying existing attachments (provided the attachment has been enabled for edit) or
- Via the Documents window by first locating your document, and then performing your edit.

Viewing Attachments

You can view the attached documents in the Order Organizer and Sales Orders windows. Within these windows, you can view attachments in either of the following manners:

- From the View menu, select Attachments or
- Select the Attachment icon from the Toolbar

Copying Orders

You can copy document attachments to a new order or return when you copy an order by using the Copy orders feature. When performing a order copy, within the Copy Orders window, select either the option of including or excluding manual attachments when copying orders, order lines, returns, and return lines.

Order Import

Once an order has been imported through Order Import into Order Management, you can apply your attachments. You can automatically apply attachments to imported orders based on your attachment addition rules. When creating the order or order line through Order Import, automatic attachments are applied if the profile option OM: Apply Automatic Attachments is set to Yes.

Report Assignment

Order Management currently utilizes Oracle Attachments functionality for the Sales Order Acknowledgement Report. You can choose to attach a document of type Text to be printed on the report output for either the Order Header, Order Body, or Order Footer entity.

Security

When viewing order and returns, you can specify which user responsibility can apply and update or simply view attachments. The function security feature available from the Oracle System Administrator responsibility also applies attachments. If you set the function security to view orders and returns, you will only be able to view attachments without the ability to apply or update the attachment.

Application Object Library Profile Option setting for Attachments

Attachment File Directory ATTACHMENT_FILE_DIRECTORY

The directory in which file type attachments data is stored. The system administrator sets this profile option during the install process. Users can see but not update this profile option.

This profile option is visible and updatable at all levels.

Table 2–14 *Attachment File Directory*

| Profile Level Setting | Visible | Allow user Update? |
|--------------------------------------|---------|--------------------|
| System Administrator: Site | Yes | Yes |
| System Administrator: Application | Yes | Yes |
| System Administrator: Responsibility | Yes | Yes |
| System Administrator: User | Yes | Yes |
| User | Yes | No |

Indicate Attachments ATCHMT_SET_INDICATOR.

This profile option allows you to turn off indication of attachments when querying records (for performance reasons). Users can see and update this profile option.

This profile option is visible and updatable at all four levels.

Table 2–15 *Indicate Attachments*

| Profile Level Setting | Visible | Allow user Update? |
|--------------------------------------|---------|--------------------|
| System Administrator: Site | Yes | Yes |
| System Administrator: Application | Yes | Yes |
| System Administrator: Responsibility | Yes | Yes |
| System Administrator: User | Yes | Yes |
| User | Yes | Yes |

Defining Documents in Advance

You can predefine standard, template, and one-time documents to attach to your orders or returns and additionally, order and return lines.

Prerequisites

Define your document categories.

Defining Attachment Addition Rules

Using standard Oracle Attachment functionality, you can specify rules for automatically attaching of all types of documents to orders and order lines. You can specify that documents be applied to orders or lines for a certain customer, Bill To customer, Ship To customer, item, order type, and/or purchase order. For Order Management, you can specify attachment addition rules at the order level for the following attributes for orders or returns:

- Customer
- Customer PO
- Invoice To
- Order Category
- Order Type
- Ship To

At the order line level, you can specify your attachment addition rules by specifying values for the following attributes on the order or return line:

- Customer
- Inventory Item
- Invoice To
- Line Category
- Line Type
- Purchase Order
- Ship To

Defining Document Categories

Using the functionality of Document Categories within the Oracle Applications Documents feature, you specify document categories to define Order Management attachment definition rules. You can choose to the following Document types as attachments:

- Document Reference
- File

- Long Text
- Short Text
- Web Page

Once you have defined you document Category, you can then perform Category Assignments to enable Oracle Applications functionality for the following entities:

- Oracle Forms
- Oracle Application Functions
- Oracle Reports that have been enabled for usage with Attachments.

To define document categories:

1. Navigate to the Document Categories window.

Figure 2–24 Document Categories Window

| Category | Default Datatype | From | To |
|------------------|------------------|------|-------------|
| AN Test - file | File | | |
| AN Test - url | Web Page | | |
| BR-Line | Short Text | | |
| BR-Manual | Short Text | | |
| BR-Order | Short Text | | 08-AUG-2001 |
| BR-Test | Long Text | | |
| Customer Notes | Short Text | | |
| KS-DOC-Category1 | | | |
| KS-DOC-Category2 | | | |
| LH-DOC-CAT1 | Short Text | | |

Assignments

Note: Ensure that you navigate to the Document categories window available from the Order Management Superuser Responsibility, Attachments submenu (Setup->Sales Order/Returns->Attachments->Document Categories) when defining attachments for Order Management reports or windows.

The Document Categories window available from the Order Management Superuser Responsibility, Documents submenu (Setup->Documents->Categories) is for creating document categories to assign document sequence rules.

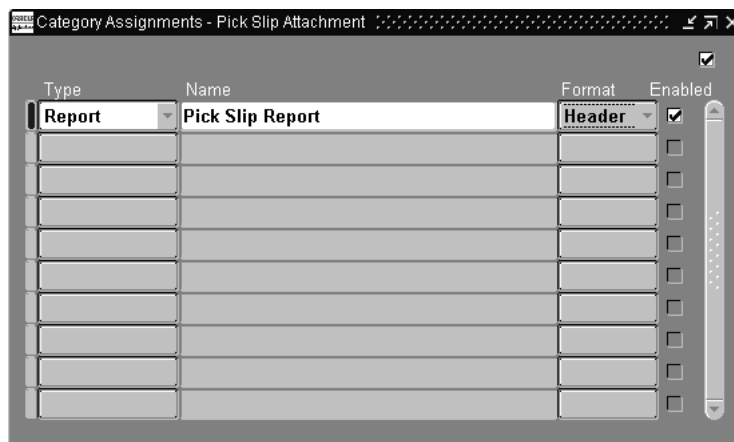
2. Enter a value for your category name in the Category field.
3. Select the default attachment datatype in the Default Datatype field.

The default Datatype can be overridden when you create documents. If you are creating a document category for Order Management reports, you must choose either *Short Text* or *Long Text*.

4. Optionally, enter an effective date range for your attachment category.
5. Save your work.

To assign document categories to functions, forms, or report:

1. Navigate to the Document Categories window.
2. Either enter a new Document Category and save your work, or select a Document Category previously defined, and select the *Assignments* button.

Figure 2–25 Category Assignments Window

3. Select the entity type you wish to enable document category attachments for. Select from:

- Forms
- Functions
- Reports

Order Management enables Oracle Application Attachment functionality for the following entities:

- The Sales Order and Order Organizer Window (form)
- The Sales Order Acknowledgement Report

If you choose to include an Attachment for printing on the Sales Order Acknowledgement Report, you are currently limited to selecting a data type of *Short or Long Text*. Additionally, order-level attachments print only at the order header or order footer within the output, and order line-level attachments print only in the report body (within the body of each record displayed).

You can associate as many reports as you need with a single category. If you customize your own reports to include documents, you can specify your own as well as Order Management's default reports in this field. Only text documents can print on reports.

Oracle Shipping Execution enables Oracle Application Attachment functionality for entities such as Bill of Lading, Commercial Invoice, Pack Slip, and Pick Slip. See *Oracle Shipping Execution User's Guide*.

Oracle Pricing enables Oracle Application Attachment functionality for entities such as Agreements and Price Lists. See *Oracle Advanced Pricing User's Guide*.

4. Select a Format. Select from:

- Header
- Body
- Footer

The Format value determines where documents in this category will appear on the report. You can add your own formats for selection within the Category Assignment window by adding values to the Order Management QuickCode NOTE_FORMAT type. However, standard reports support only the seeded format of Header, Body, and Footer.

Attention: In standard reports, order-level notes print only at the header and footer levels; line-level notes print only in the report body.

5. Save your work.
6. For information on Defining and Assigning Document Categories, see *Oracle Application User's Guide*.

Overview of Shipping Tolerances

Oracle Order Management provides you with the ability to capture shipping tolerance levels for over and under shipments recorded during ship confirmation. The shipping tolerance feature enables you to define various shipping tolerance levels for ordered and expected return quantities. Order Management shipping tolerances are used to validate the percentage of the ordered quantity. Once shipping tolerances have been defined, Order Management then automatically fulfills order lines using the tolerances you defined.

Order Management's shipping tolerances feature captures the following:

- Over and under shipments and returns percentages at the system, customer, site, item, site-item, and customer item levels

- Different tolerances for ordered and returned quantities
- Defaulted tolerances from various sources based on your defaulting rules
- Automatic fulfillment of total shipped quantities for order lines within the under tolerance limit
- Tolerances levels that enable you to over ship at the time of ship confirmation

Over Shipments

When Oracle Shipping Execution attempts to over ship an order, Order Management processes the order based on the shipping tolerances you define. In order to perform an over shipment, Order Management:

- Determines if the ship quantity is within the defined over shipment tolerance levels you defined by setting the OM: Overshipment Tolerance profile option or setting your shipment tolerances in Order Management.
- Notifies the appropriate personnel when an over shipment is above the set shipping tolerance.
- Issues the material for any unpicked or unreserved quantity.

See

[Profile Options](#)

Under Shipments

When Oracle Shipping Execution attempts to under ship an order, Order Management processes the order based on the shipping tolerances you define. In order to perform an under shipment, you must:

- Ship confirm the quantity at the time of closing the delivery
- Determine if the total quantity shipped is within the under shipment tolerances you defined. Any remaining shipment allocations are removed

Note: If the total quantity shipped is under the shipment tolerances, Order Management will split the original shipment line. The shipment will be shipped as a partial shipment.

Under Shipment tolerances greater than 100% are treated as the equivalent of a 100% tolerance; to close order lines a shipment of a non-zero quantity is required, even if the under shipment tolerance is set to 100%.

ATTENTION: If a zero quantity is entered at shipment, the system will process the transaction. However, zero quantity shipments are not allowed; Order Management will therefore perform a backorder for the zero quantity shipment line at ship confirm.

A shipment of a quantity other than zero is needed in order to enable order lines to progress to closure.

Over Shipments Report

Oracle Shipping Execution provides the Over Shipments Report for displaying shipping tolerances. This report displays shipping tolerance information based on the customer, site, item, warehouse, ship date, and order type.

See

[Profile Options](#)

[Oracle Shipping Execution User's Guide](#)

Defining Shipping Tolerances

Defining shipping tolerances are based on your customers and items or your customer site and item tolerances.

Prerequisites

- Set up your customer and customer site tolerances in the Customer window
- Set up your tolerances for items in the Master Items window

To define shipping tolerances for orders or returns:

1. Navigate to the Setup Tolerance window.

Figure 2–26 Setup Tolerance Window

2. Select the Customer name for the shipping tolerance.
3. Select the customer Address for the shipping tolerance.
4. Select the Item Number for the shipping tolerance.
5. Enter the Over Shipment Tolerance percentage.

The over shipment tolerance percentage determines the amount of the shipment you can exceed at the time of ship confirmation.

6. Enter the Under Shipment Tolerance percentage.

The under shipment tolerance percentage determines the minimums amount of the shipment at the time of ship confirmation. If you enter more than 100, the shipping process will use 100.

Note: At high level, Order Management currently does not support over and under shipment tolerances for ATOs (Model, Kit and all children). Updates to shipment tolerances for PTOs is currently not allowed.

If you have defined non-zero tolerances within either the Item Form, Customer Form, Shipping Tolerances Form, or the profile option value, the values are ignored for PTOs; the over and under shipment tolerance for PTOs will always default to 0.

7. Enter the Over Return Tolerance percentage for return receipts.

The over return tolerance percentage determines the amount of the return you can accept above.

8. Enter the Under Return Tolerance percentage for return receipts.

The under return tolerance percentage determines the amount of the return you can accept below.

9. Save your work.

Setup for Blanket Sales Agreements

To setup the Order Management system to enter Blanket Sales Agreements:

1. Install Oracle Order Management.
2. Define a Blanket Agreement transaction type for assigning blanket numbers.
3. Optionally, setup the profile option: OM: Blanket Order Type to default the category to generate the blanket number.

Release Management Integration Setup for Blanket Sales Agreements

Oracle Release Management

Oracle Release Management locates the releases against a Blanket Sales Agreement, and uses this information to determine the current picture of demand. Currently, Release Management looks at only one sales order to determine demand (this sales order is identified in the Release Management Processing Rules). Release Management uses the Blanket Sales Agreement number in the processing rules, and determines all releases against the Blanket Sales Agreements to define the current demand.

Related Items Setup

To set up the Item Relationships using Oracle Inventory:

1. Navigate to the Item Relationships window.
2. Define the relationships between items by selecting the Type of relationship, the most commonly used relationship types are:

Substitute: One item is a substitute for another (alternate item)

- Superseded:** One item is replacing another, probably older version
- Up-sell:** Selling an improved version of the item originally ordered
- Cross-Sell:** Selling additional items that go along with the item originally ordered

Figure 2–27 Item Relationships Window

| From Item | To Item | Type | Reciprocal | Effective Dates |
|-----------|---------|-----------------|-------------------------------------|-----------------|
| | | | | From To [] |
| AS54888 | AS18947 | Related | <input checked="" type="checkbox"/> | |
| AS54888 | AS72111 | Cross-Sell | <input checked="" type="checkbox"/> | |
| AS54888 | AS72111 | Up-Sell | <input checked="" type="checkbox"/> | |
| AS54888 | AS99998 | Promotional ... | <input checked="" type="checkbox"/> | |
| AS54888 | A | Cross-Sell | <input checked="" type="checkbox"/> | |
| AS54888 | B | Up-Sell | <input checked="" type="checkbox"/> | |
| AS54888 | C | Substitute | <input checked="" type="checkbox"/> | |
| AS92689 | AS54888 | Related | <input checked="" type="checkbox"/> | |
| AS72111 | AS54888 | Related | <input checked="" type="checkbox"/> | |
| AS72111 | AS54888 | Substitute | <input type="checkbox"/> | |

Item Description
From: Sentinel Standard Desktop
To: Sentinel Deluxe Desktop
[Planning Details](#)

In the above window, the item ‘AS54888’ is setup with different related items of different relationship types like Cross-sell, Up-sell, Supercede, Substitute. This window can be accessed from Inventory > Items > Item Relationships.

Current Relationship Types

- 1 Related
- 2 Substitute
- 3 Cross-Sell
- 4 Up-Sell

- 5 Service
- 6 Prerequisite
- 7 Collateral
- 8 Superseded
- 9 Complimentary
- 10 Impact
- 11 Conflict
- 12 Mandatory Charge
- 13 Optional Charge
- 14 Promotional Upgrade
- 15 Split
- 16 Merge
- 17 Migration

Note : The relationship type 14 (Promotional Upgrade) is used by Advanced Pricing for Item Upgrade setup. So on the Related Items window, the items that are setup with relationship type 14 are not shown.

3. Save your work.

Shipping Across Orders Setup

Setting Up

You can control access for the appropriate role.

To set up for the appropriate role:

1. Set the profile option OM: Scheduling Role:
 - CSR only: Will not be able to access the Scheduling Find tab and Scheduling Organizer window. All other functionality for the Order Organizer and Sales Order Pad will remain unchanged.

- Scheduler only: Will be able to access Scheduling Find tab and Scheduling Organizer window, but not other tabs within the Order Organizer, i.e. Order Information, Line Information, Advanced, and Holds Information.

Note: Scheduler-only users should have their own Menu which should not have access to functionality such as the Sales Orders window, Price Lists, etc.

- CSR and Scheduler: Will be able to access both the Order tabs (Order Information, Line Information, Advanced, and Holds Information) and the Scheduling tab within the Find Orders window as well as the Scheduling Organizer window.
2. Save your work.

Gross Margin

To Set up for Gross Margin:

1. Install the Order Management Family Pack I that includes this code.
2. Go to Order Management Parameters window. The default for Calculate Margin is No. To use margin, you must enable Calculate Margin control. Choose whether to do the calculation based on Price or Cost. Save your work.
3. Decide if you want to hold orders that do not meet minimum margin percentages. If you do, decide which order types you want to do this for. Go to the Order Management Transaction Type window and query up each Order Type record and enter the minimum margin percentage. Save each record.
4. Determine which responsibilities do NOT need to be able to see Gross Margin information in the Sales Orders window and the Pricing & Availability window. Using the System Administrator responsibility, navigate to Applications > Responsibility, define or query up a responsibility with “Orders, Returns Main Menu” attached, and exclude the View Margin function from those responsibilities.
5. Create a folder for the Sales Orders window, Order Information tab, Other sub-tab to display both or either Margin Amount and Order Margin %, and a folder for the Line Items tab to display any or all of the Cost, Margin Amount and Margin % fields on the Main sub-tab or the Pricing sub-tab. Assign that folder to be the default folder for those responsibilities who can see margin.

Create a folder for the Pricing & Availability window Pricing tab to display any or all of the Cost, Margin Amount and Margin % fields and assign that folder for those responsibilities who are allowed to see margin.

User Item Description

To set up the User Item Description:

To set up the Order Management system to use the User Item Description for invoicing purposes or for ad hoc item entry, do the following:

1. Install the Order Management Family Pack that includes this code.
2. Create a folder for the Line Items tab to show the User Item Description on the Main sub-tab. Assign that folder to be the default folder for those responsibilities who need to be able to key or view the User Item Description. Save your work.
3. To create a generic item to be used for drop shipping miscellaneous items that you do not typically sell or stock, create a dummy item in the Inventory Master Items window. Set the item attribute Default Source Type to External, so the item will be always drop shipped. Set the item attribute 'Allow Description Update' on the Purchasing tab to checked, so that PO will not reject the user item description.

Setup for Related Items

To set up the Related Items feature:

Set the profile OM: Enable Related Items and Manual Substitutions to Yes.
Setup for Scheduling Usability Enhancements Across Orders.

Note : APS customers should not use this feature as there is an impact on collections and forecast consumption which APS will take up in next release

Trading Community usage within Order Management

In general, previous releases of Order Applications and initial releases of Oracle CRM products utilized the Oracle Receivables Customer Model for storing and retrieving customer information.

With release 11i, a new way of internally modeling customers and customer details was introduced; Oracle's Trading Community model. Oracle's Trading Community customer model is a powerful customer architectural design building on the Receivables Customer model, enabling users to now define and maintain customer hierarchies and relationships between customers and sites. If a CRM or ERP application maintains customer information, the application is using the Trading Community customer model.

Trading Community enables you to:

- Separate entities you enter into a relationship with from the business relationship itself
- Provide a common location entity that can be shared, enabling greater optimization for distributed planning
- Maintain businesses and people as different entity types
- Enables multiple customer relationships to be established for one common entity

Terminology

Trading Community

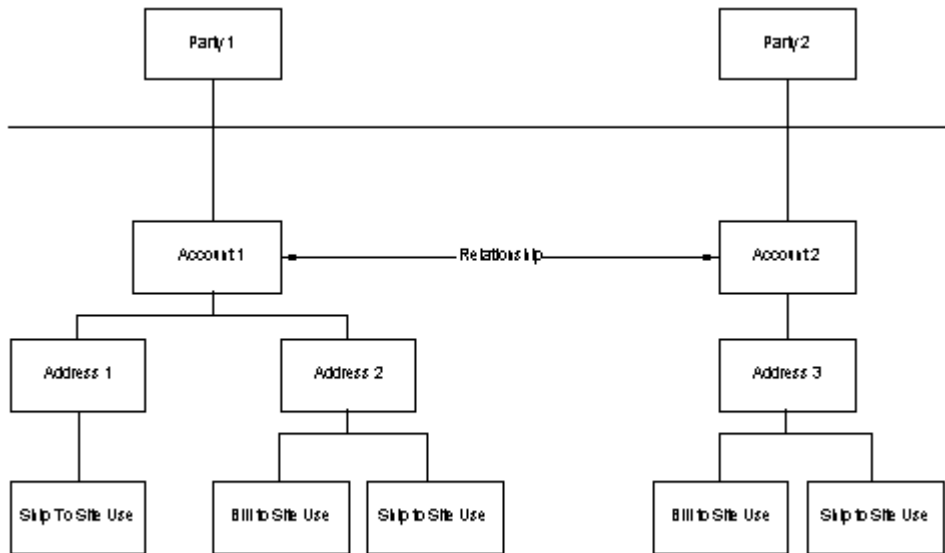
- **Party:** This is a generic term for any entity which can have any type of relationship with your company. The three primary party types are:
 - **Person:** This party type is typically used when you are creating an entity that operates within a business to customer environment.
 - **Organization:** This party type is typically used when you are creating an entity that operates within a business to business environment.
 - **Party Relationship:** This party type represents a binary relationship between two parties such as a partnership. Party relationship types can be seeded or user-defined. A party relationship is optionally a party itself, meaning certain party relationships can enter into relationships themselves (currently not supported within Order Management).

- **Party Site:** Part Site represents the link between a party and a location (a valid location for the party. Typically, your organizational hierarchy is used when modeling using party relationships.
- **Account:** An account represents a relationship between your company and a party in the Trading Community model who is your customer. Accounts contain the attributes of the selling relationship between your organization and a party. Account attributes do not describe a party; they only exist when a selling relationship is present between the your organization and a party. The information which is used for processing orders and receivables transactions is part of the account information.
- **Account Site:** A party site address that is used within the context of an account.
- **Account Site Usage:** An account site created for specific usage; for example, billing or shipping purposes.

Mapping Order Management terminology to Trading Community terminology

- **Customer Site, Customer Location, Customer Address:** These terms, within Order Management equate to Trading Community Account Sites.
- **Bill To, Ship To, Deliver To:** These terms, within Order Management, equate to Trading Community Account Sites Usages.

The following figure describes the conceptual usage of the Trading Community model as utilized currently within Order Management.

Figure 2–28 Trading Community Model

The figure above conceptually represents the Trading Community customer model and how Trading Community has been integrated within the Order Management Application. When defining a customer, you are defining a Trading Community account, which can be linked to a new or existing Party. Accounts have at least one address and each address may have one or more site uses. You can also create new relationships among accounts across parties.

Within Order Management, each account belongs to a party. These parties may have additional relationships and details defined, but Order Management currently only utilizes a limited subset of the party data (accounts, addresses, and sites usages).

The Trading Community model includes all the information which was previously stored in the Receivables customer model. This includes information such as:

- Customers
- Customer addresses and site uses
- Profile amounts
- Customer relationships

In order to maintain backward compatibility for the Oracle Receivables customer model, Order Management currently accesses data stored in Trading Community database tables via Order Management database views. Future development projects are in progress to update Order Management applications code to retrieve Trading Community details directly from Trading Community base tables rather than utilizing Order Management views.

As Order Management adds new features and additional functionality to its core application, users will begin to see Trading Community terminology incorporated into Order Management Forms (windows), Reports, Concurrent Programs, and product documentation. Until these project are completed, Order Management forms will continue to use names of entities as they existed in the Receivables customer database tables. The following table provides a mapping of these field names.

Table 2–16 Mapping of Entities in Receivables Customer Database Tables

| Order Management Form (window) Entity Name | Trading Community Base Table Entity Name |
|---|---|
| Customer Number | Account Number |
| Customer Name | Party Name |

For more information on Trading Community and the new Trading Community customer model, see: [Oracle Receivables User's Guide, Customers](#).

Oracle Configurator Setup Requirements

Topics covered in this chapter include the following:

- [Overview](#) on page 3-2
- [Configurator](#) on page 3-2

Overview

This chapter details the necessary setup needed to access the Configurator in Oracle Order Management. For details on implementing Configure to Order (CTO), refer to the *Oracle Configure to Order Implementation Manual*. Refer to the section on Configure to Order Process to see how Order Management is integrated with CTO, ATO, PTO and KITS and how these items are processed to their fulfillment.

Configurator

You must have the following setup in place before using the CTO process and Configurator window in the Sales Order Window:

Installation Status

The status of configurator product must be in complete installed mode (**Status = 'I'**).

Profile OM: Included Item Freeze Method

This profile determines when included items for Model, Class or Kit are frozen. Once the included items are frozen, they cannot be re-exploded. The profile has the following values:

- Entry - Indicates included items will be exploded at the time the MODEL, CLASS or KIT is entered
- Booking - If the profile value is booking, the included items will be exploded at the time of booking
- Pick Release - If the profile value is pick release, the included items will be exploded when the parent line reaches workflow activity 'SHIP_LINE' in the flow

Profile BOM:Configurator URL of UI Manager

Ensure that the profile that identifies the URL of the Configurator UI Manager is correct. This profile setting is used by OM to identify the configurator. To verify this profile, navigate to the System Window: N: System Administrator > Profile > System. Perform Find System Profiles using %BOM%URL% as the profile search string. This name may vary, but it is usually BOM:configurator URL of UI Manager.

Verify that the value is: "**http://{URL}:{port}/{mount_point_for_configurator_servlet}/oracle.apps.cz.servlet.UiServlet**" where the values in braces ({}) should be replaced with the appropriate values.

Note: The profile must be set for the site OR for every user. If this profile is not set properly, the configurator screen will come up blank. Errors will not be logged, but if you turn on the Java Console it will capture as invalid URL error.

Edit/Create .dbc File

In order to use the Oracle Configurator, the Database Configuration (".dbc") file must be edited/created for your particular installation. You must ensure that .dbc file exists in \$FND_TOP/secure directory and is in <hostname>_<SID>.dbc (be sure to replace db_host and SID with the correct values) format. If it does not exist, use template.dbc to create this file in the given format.

The following changes are required on top of any settings that maybe required by other Application products:

Only Oracle thin drivers are supported, so uncomment:

- APPS_JDBC_DRIVER_TYPE=THIN

Add the following two lines and replace the items between brackets (<>) with the appropriate values:

- BATCH_VALIDATE_USER = <Applications Username of the Guest>
- BATCH_VALIDATE_PWD=<Applications Password of the Guest>

Uncomment the following line and replace "host_name" with the appropriate value:

- DB_HOST=host_name

Uncomment the following line and replace "port_number" with the appropriate value:

- DB_PORT=port_number

Uncomment the following line and replace "db_name" with the appropriate value:

- DB_NAME=db_name

See

Oracle Configurator Implementation Guide

Oracle Shipping Execution Setup

Topics covered in this chapter include the following:

- [Overview of Setup](#) on page 4-3
- [Setup Steps](#) on page 4-6
- [Profile Options](#) on page 4-10
- [Defining Roles and Users](#) on page 4-14
- [Defining Shipping Parameters](#) on page 4-29
- [Defining Freight Carrier Ship Methods](#) on page 4-43
- [Defining Freight Costs](#) on page 4-54
- [Defining Shipment Transit Times](#) on page 4-55
- [Defining Document Sequences](#) on page 4-59
- [Defining Document Categories](#) on page 4-61
- [Assigning Document Sequences to Document Categories](#) on page 4-65
- [Defining Shipping Document Sets](#) on page 4-70
- [Choosing Printers for Shipping Documents and Labels](#) on page 4-73
- [Defining Pick Slip Grouping Rules](#) on page 4-78
- [Defining Release Rules](#) on page 4-79
- [Defining Release Sequence Rules](#) on page 4-84
- [Defining Transportation Calendars](#) on page 4-87
- [Defining Shipping Exceptions](#) on page 4-90
- [Defining Containers and Vehicles](#) on page 4-93

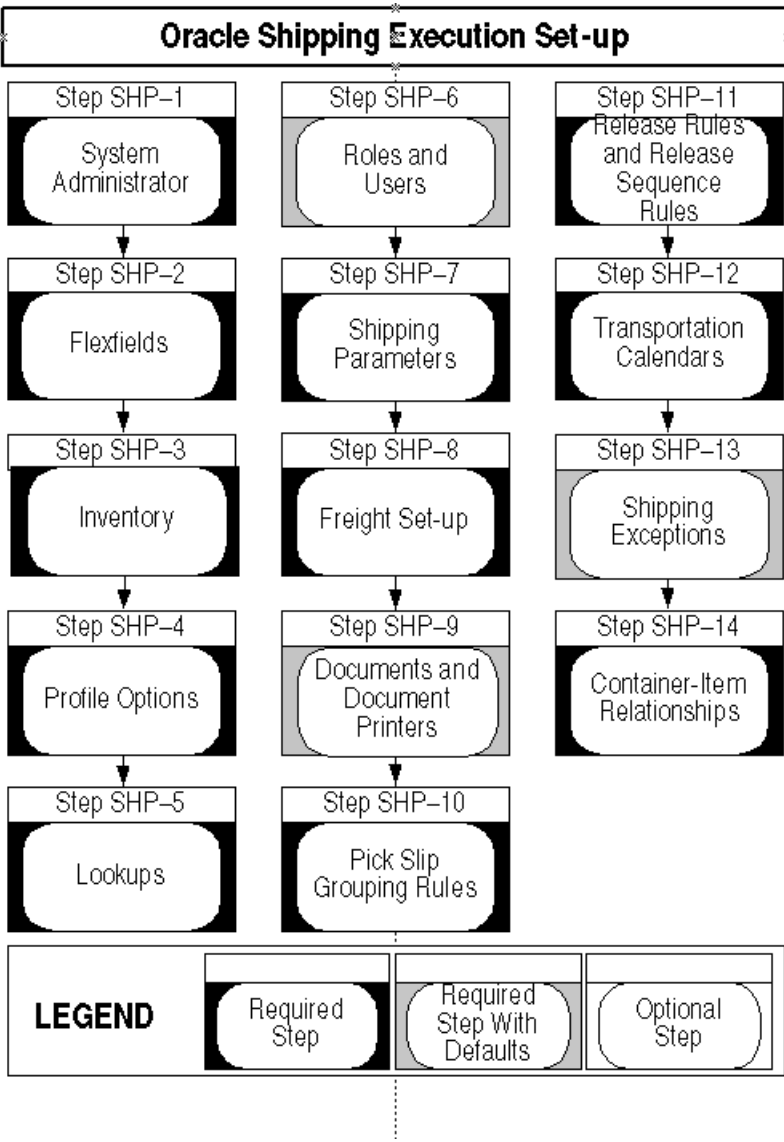
-
- [Defining Container-Item Relationships](#) on page 4-94
 - [Finding Container-Item Relationships](#) on page 4-96
 - [International Trade Management Adapter](#) on page 4-97
 - [Regions and Zones](#) on page 4-110
 - [Oracle Shipping Debugger](#) on page 4-118

Overview of Setup

Some of the setup steps are required and some are optional:

- The *Required Step With Defaults* refers to setup functionality that comes with pre-seeded, default values in the database; however, you should review those defaults and decide whether to change them to suit your business needs. If you want or need to change them, you should perform the step.
- You need to perform *Optional* steps only if you plan to use the related feature or complete certain business functions.

Figure 4–1 Oracle Shipping Execution Setup Steps



This table lists the setup steps which are described in more detail in the section Setup Steps.

Table 4–1 Oracle Shipping Execution Setup Steps

| Step | Required | Step |
|-------------|-----------------------------------|---|
| 1 | Required | Set up System Administrator |
| 2 | Required | Set up Flexfields |
| 3 | Required | Perform Oracle Inventory Setup |
| 4 | Required with Defaults | Define Profile Options |
| 5 | Required | Define Lookups |
| 6 | Required with Defaults | Define Roles and Users |
| 7 | Required | Define Shipping Parameters: |
| 8 | Required | Define Freight Set-Up: |
| 9 | Required (if using document sets) | Define Documents and Document Printers: |
| 10 | Optional | Define Rules |
| 11 | Required | Define Release Rules and Release Sequence Rules |
| 12 | Optional | Define Transportation Calendars |
| 13 | Required with defaults | Define Shipping Exceptions |
| 14 | Required | Define Container-Item Relationships |

Setup Steps

Step 1: Set up System Administrator

This step involves the following tasks:

- Define responsibilities. See: *Oracle Applications System Administrator Guide*
- Set up printers (optional). See Setting Up Your Printers, *Oracle Applications System Administrator Guide*

Step 2: Set up Flexfields

Define key and descriptive flexfields to capture additional information about orders and transactions. See: *Oracle Application User's Guide*.

Step 3: Perform Oracle Inventory Setup

Perform all setup steps required for Oracle Inventory, then perform the following.

- Set up internal locations for Human Resources for your Inventory Organizations
- Map inventory organizations to internal locations

Organizations

Define at least one of the following:

- Item validation organization
- Organization as inventory source for internal orders
- Organization for receiving purposes, if you use drop ship orders

Your item validation organization can be the same as your inventory source or your logical receiving organization, but you cannot use one organization for all three purposes.

Pick Confirmation

The Pick Confirmation Required check box affects the behavior of the picking process in Shipping Execution. Navigate: Oracle Shipping > Set up > Organization Parameters > ATP, Picking, Item- Sourcing tab.

If the Pick Confirmation Required check box is checked, the system requires you to navigate to inventory forms to perform a manual pick confirmation of the move order that was generated as a result of the Pick Release process. The pick

confirmation process acknowledges the transfer of the item being picked from its source location to the default staging location.

If the Pick Confirmation Required check box is unchecked (the default) for new installs, the system performs the pick confirmation process automatically based on sourcing rules set up in Oracle Inventory. To emulate the picking processes from release 10.7 and 11.0, this check box should be unchecked.

Figure 4–2 Organization Parameters Window - ATP, Pick, Item-Sourcing Tab

The screenshot shows the 'Organization Parameters (M1)' window with the 'ATP, Pick, Item-Sourcing' tab selected. The window contains the following sections:

- ATP Defaults:** A 'Rule' dropdown menu.
- Picking Defaults:** A 'Rule' dropdown menu set to 'RevSub', 'Subinventory Order' and 'Locator Order' text boxes, and an unchecked 'Pick Confirmation Required' checkbox.
- Item-Sourcing Detail:** A 'Type' dropdown menu set to 'Supplier', and 'Organization' and 'Subinventory' text boxes.
- Distributed Parameters:** Two unchecked checkboxes: 'Distributed Organization' and 'Carrier Manifesting Organization'.

Staging Subinventory

Create at least one staging subinventory for each organization. Move orders record the movement of pick released material to staging subinventories. Staging subinventories should be reservable.

Step 4: Define Profile Options

Define profile options to specify certain implementation parameters, processing options, and system options. See: Profile Options, *Oracle Shipping Execution User's Guide*.

Step 5: Define Lookups

Define lookups that provide custom values for many lists of values throughout Shipping Execution. See: Lookups, *Oracle Shipping Execution User's Guide*.

Step 6: Define Roles and Users

Assign roles to users that control access (edit or view privileges) to shipping entities in the Shipping Transactions form.

Step 7: Define Shipping Parameters

Define default Shipping Parameters. See: Defining Shipping Parameters, *Oracle Shipping Execution User's Guide*.

Step 8: Define Freight Set-up

Define freight carriers, services, and freight costs to specify on orders. Assign carrier services to organizations. See: Defining Freight Carrier Ship Method Relationships.

Define freight costs to specify on orders. See: Defining Freight Costs.

Step 9: Define Documents and Document Printers

Define groups of shipping documents that can print to specified printers when you confirm shipments.

To set up document sequencing perform the following tasks:

- Define document sequences. See: Defining Document Sequences in *Shipping Execution User's Guide*.
- Define document categories. See: Defining Document Categories in *Shipping Execution User's Guide*.

- Assign document sequences to document categories. See: Assigning Document Sequences to Document Categories in *Shipping Execution User's Guide*.
- Define document sets. See: Defining Shipping Document Sets in *Shipping Execution User's Guide*.
- Choose printers. See: Choosing Printers for Shipping Documents and Labels in *Shipping Execution User's Guide*.

Step 10: Define Pick Slip Grouping Rules

Define pick slip grouping rules to determine how released picking lines are grouped onto pick slips. See *Defining Pick Release Parameters*.

Step 11: Define Release Rules and Release Sequence Rules

Define the order in which picking lines are allocated to inventory. See: Defining Release Sequence Rules in *Shipping Execution User's Guide*.

Step 12: Defining Transportation Calendars

Assign a calendar that you created in the Bill of Materials (BOM) application to a shipper, receiver, or carrier. See: *Bill of Materials User's Guide* and Defining Transportation Calendars, *Shipping Execution User's Guide*.

Step 13: Define Shipping Exceptions

You can define exceptions, define processes for exception handling and relate them to appropriate exceptions, log exceptions, associate status to exceptions at various stages in the logging and handling process, start exception handling, and view and track exceptions. See: Defining Shipping Exceptions, *Oracle Shipping Execution User's Guide*.

Step 14: Define Container-Item Relationships

Define the relationship between container items and load items to specify which items can be contained with other items. See: Defining Container-Item Relationships, *Oracle Shipping Execution User's Guide*.

Profile Options

During implementation, you set a value for each user profile option to specify how Shipping Execution controls access to and processes data.

Generally, the system administrator sets and updates profile values. See: Setting User Profile Options, *Oracle Applications System Administrator’s Guide*.

Implementing Profile Options Summary

The following table indicates whether you (the “User”) can view or update the profile option and at which System Administrator level the profile options can be updated. The System Administrator level includes User, Responsibility, Application, and Site levels.

The table also displays if the profile option is Optional or Required:

- Required: Requires you to provide a value
- Optional: A default value is provided, so you only need to change it if you do not want to accept the default

Note: If you are using a multi-organization structure, your system administrator must change the *OM Item Validation Organization* profile option to be visible and updateable at the responsibility level. This change enables Shipping Execution to apply the default tax code and revenue account information correctly. See: Setting Up, *Multiple Organizations in Oracle Applications*.

The following terms are used in the table to identify if you can view or update the profile option information:

- Updatable: You can update the profile option
- View Only: You can view the profile option value but you cannot change it
- No Update or View: You cannot view or change the profile option value

Table 4–2 Oracle Shipping Execution Profile Options

| Profile Option | User | System Admin. User | System Admin. Resp | System Admin. App | System Admin. Site | Required | Default Value |
|------------------------------|-----------|--------------------|--------------------|-------------------|--------------------|----------|---------------|
| WSH: Internet Proxy URL | View Only | View Only | View Only | View Only | Updatable | Optional | <none> |
| WSH: Overpicking Enabled | Updatable | Updatable | Updatable | View Only | Updatable | Optional | No |
| WSH: Pick Release Batch Size | View Only | Updatable | Updatable | Updatable | Updatable | Optional | Null |
| WSH: Run PL/SQL Profiler | Updatable | Updatable | Updatable | Updatable | Updatable | Optional | No |
| WSH: Retain ATO Reservations | Updatable | Updatable | Updatable | Updatable | Updatable | Optional | Null |
| WSH: Debug Module | View Only | Updatable | Updatable | Updatable | Updatable | Optional | % |
| WSH: Debug Log Directory | View Only | Updatable | Updatable | Updatable | Updatable | Optional | Null |
| WSH: Debug Level | Updatable | Updatable | Updatable | Updatable | Updatable | Optional | Procedure |
| WSH: Debug File Prefix | View Only | Updatable | Updatable | Updatable | Updatable | Optional | Null |
| WSH: Debug Enabled | Updatable | Updatable | Updatable | Updatable | Updatable | Optional | No |

WSH: Internet Proxy URL

This enables the system to access UPS servers for United Parcel Service integration. If no firewall is installed at your site, you do not need to set the profile. This profile can only be modified by the System Administrator at the site level.

WSH: Overpicking Enabled

Enter Yes to enable overpicking. Overpicking is using the pick confirm transaction to pick more than the requested quantity of a delivery, up to the overshipment tolerance.

WSH: Pick Release Batch Size

This profile option enables you to change the batch size from 3 to 1000. Any value less than 3 is interpreted as 3 and any value greater than 1000 is interpreted as 1000.

WSH: Run PL/SQL Profiler

Select from LOV YES or NO. Default is NO.

WSH: Retain ATO Reservations

Set to Yes, and you can avoid the redundancy of re-reserving the item. The inventory system retains the reservation and the reservation status changes from Staged to Unstage, while the delivery line status changes to Backordered.

WSH: Debug Module

The Module describes where to find the log message within the code. This profile indicates that debug messages from only those modules with names beginning with the profile value will be logged. The naming convention for Module is: <application short name>.<directory>.<package>.<routine>.<label> e.g. wsh.plsql.WSH_WV_UTILS.convert_uom.

WSH: Debug Log Directory

The value entered for this profile option must be specified as a UTL_FILE parameter value.

WSH: Debug Level

The level is a scale specifying the priority of a log message. The level is the lowest level for which the user wants to see messages. Select from the Debug Level LOV one of the following.

Valid Values are (in increasing order of priority):

- Performance
- Statement
- Procedure (Default)
- Event
- Exception
- Error
- Unexpected Error

To obtain the most information within the debug file, set the Debug Level to Statement.

WSH: Debug File Prefix

Naming Convention for Debug File is <Debug File Prefix Profile>_sessionid.dbg If value of profile is null, naming convention is wsh_<username>_<sessionid>.dbg

Where: <username> is Application user name. If application context is not established, it will be defaulted to dbuser: <dbusername>.

<sessionid> is Database session id.

WSH: Debug Enabled

Select from the Debug Enabled LOV either YES or NO to activate the debug feature. The default is NO.

Defining Roles and Users

Shipping Execution provides data access controls called *roles* that control users' access to the Actions list and Tools menu in the Shipping Transactions form. Roles are assigned to users using *grants* that control access to view or edit specific shipping data or actions.

This is useful, for example, if you want to assign a grant to inexperienced users that provides view-only access or assign grants that prevent unwanted actions such as unintentional pick releases across multiple organizations.

Note: Roles provide data access controls for the Shipping Transactions form. If you want to restrict user access to other windows like the Pick Release or setup windows, you can edit the Shipping menus in Shipping Administration.

For each role, you can select the following data access controls that control edit and view access to shipping entities such as trips, stops, deliveries, lines/LPNs.

- Data Access Edit enables you to edit and view the data
- Data Access View enables you to browse the data
- Data Access None prevents you from editing and browsing data and performing actions

A role can provide either view-only, edit-only, or a combination of view and edit access depending on the set up of the role. You can create customized roles by defining the access controls you want. During the set-up for each role, you can quickly enable or disable actions by selecting the Disable or Enable Actions button.

Note: If no data access control is selected, the user cannot edit or view the selected action.

Once you have defined a role you can assign it to a user through a grant. A grant defines both the user's role and related information about the grant including the date, and the organization(s) to which the grant applies.

The system administrator or super-user is responsible for defining roles and assigning the grants to users.

Upgrading and New Installation Considerations for Roles and Users

Privileges for roles and users may differ depending on your software installation:

- Upgrading from 11*i.2*: Existing users are assigned the default system privileges which provide *full view and edit* access. To change these privileges you must first end the user's assigned grant by entering an end date for the upgraded grant, and then assign a new grant.
- Installing 11*i.4* or a later version (fresh install—no upgrade from previous version): New users are assigned the default system privileges which are *view-only*. To change these privileges, you can assign a new grant to each user.

Note: You cannot assign a new role globally to all users, you must assign the new role to each individual user.

Defining a New Role

Shipping Execution enables you to define new roles by selecting the data access controls you want. You can define a new role by:

- Copying an existing role: An existing role can be copied to create a new role. The copied role has the same data access privileges of the original, but if desired, these privileges can be edited for the new role. Save the new role with a different name than the original.
- Manually defining a new role: You can create a new role in the Shipping Execution Role Definition window by selecting the data access controls to trips, stops, lines, and deliveries. Save the new role with a unique name.

Once you have created the new role you can assign it by grant to a user.

Note: In an environment that does not have Oracle Transportation installed, five privileges related to Oracle Transportation are grayed out in the Shipping Execution Role Definition window. The following privileges are strictly related to Oracle Transportation, and therefore, do not apply if this application is not licensed:

- View Message History
 - Send Outbound Message
 - Select Carrier
 - Get Freight Costs
 - Cancel Ship Method.
-
-

To define a new role:

1. Navigate to the Shipping Execution Role Definition window.

Figure 4–3 Shipping Execution Role Definition Window

Shipping Execution Role Definition

Name **Full Upgrade**

Description **Full Access**

Trips Stops Deliveries Lines/LPNs

Data Access **Edit**

- ☒ Calculate Weight/Volume
- ☒ Assign Freight Costs
- ☒ Launch Pick Release
- ☒ Plan
- ☒ Print Document Set
- ☒ Pick Release Form
- ☒ Resolve Exceptions Form
- ☒ Unplan
- ☐ Ship Confirm

Disable Actions Enable Actions

2. In the Name field, enter the name of the role.
3. In the Description field, enter a description of the role.
4. In the Trips tab, in the Data Access field, select:
 - Edit to provide edit access for the trip records.
 - View to provide view-only access for the trip records.
 - None to disable access and actions.
5. From the list of trip actions, select the action(s) that the user can do.

Note: As a shortcut, choose the Disable Actions button to disable all the actions or the Enable Actions button to enable all the actions.

6. Choose the Stops tab.

Figure 4–4 Shipping Execution Role Definition Window - Stops Tab

Shipping Execution Role Definition

Name:

Description:

Trips Stops Deliveries Lines/LPNs

Data Access:

- ☒ Calculate Weight/Volume
- ☒ Assign Freight Costs
- ☒ Launch Pick Release
- ☒ Plan
- ☒ Print Document Set
- ☒ Pick Release Form
- ☒ Resolve Exceptions Form
- ☒ Unplan
- ☒ Update Status

Disable Actions Enable Actions

7. In the Data Access field, select:

- Edit to provide edit access to the stop records.
- View to provide view-only access to the stop records.
- None to provide no access to the stop records.

8. From the list of stop actions, select the action(s) that the user can do.

Note: As a shortcut, choose the Disable Actions button to disable all the actions or the Enable Actions button to enable all the actions.

9. Choose the Deliveries tab.

Figure 4-5 Shipping Execution Role Definition Window - Deliveries Tab

The screenshot shows the 'Shipping Execution Role Definition' window with the 'Deliveries' tab selected. The window has a title bar and a close button. Below the title bar are fields for 'Name' and 'Description'. Below these are tabs for 'Trips', 'Stops', 'Deliveries' (selected), and 'Lines/LPNs'. Under the 'Deliveries' tab, there is a 'Data Access' dropdown menu set to 'Edit'. Below this is a list of actions, each with a checked checkbox. At the bottom right are two buttons: 'Disable Actions' and 'Enable Actions'.

| Action | Selected |
|-------------------------|----------|
| Assign to Trip | ✓ |
| Auto-create Trip | ✓ |
| Auto-pack | ✓ |
| Auto-pack Master | ✓ |
| Calculate Weight/Volume | ✓ |
| Close | ✓ |
| Assign Freight Costs | ✓ |
| Generate BOL | ✓ |
| Generate Loading Seq. | ✓ |
| Generate Packing Slip | ✓ |
| Launch Pick Release | ✓ |
| View Message History | ✓ |
| Pick and Ship | ✓ |
| Pick, Pack and Ship | ✓ |
| Plan | ✓ |
| Print Document Set | ✓ |
| Pick Release Form | ✓ |
| Re-open | ✓ |
| Resolve Exceptions Form | ✓ |
| Ship Confirm | ✓ |
| Unassign from Trip | ✓ |
| Unplan | ✓ |
| UPS Address Validation | ✓ |
| UPS Rate and Service | ✓ |
| UPS Time in Transit | ✓ |
| Send Outbound Message | ✓ |
| Select Carrier | ✓ |
| Get Freight Costs | ✓ |
| Cancel Ship Method | ✓ |
| View Shipping Status | ✓ |

10. In the Data Access field, select:

- Edit to provide edit access to the delivery records.
- View to provide view-only access to the delivery records.

- None to provide no access to the delivery records.

11. Select the Action that you want to perform.

Note: Use the Actions View Message History, Send Outbound Message, Select Carrier, Get Freight Costs, and Cancel Ship Method if you have Oracle Transportation installed.

Note: As a shortcut, choose the Disable Actions button to disable all the actions or the Enable Actions button to enable all the actions.

12. Choose the Lines/LPNs tab.

Figure 4–6 Shipping Execution Role Definition Window - Lines/LPNs Tab

Shipping Execution Role Definition

Name

Description

Trips Stops Deliveries **Lines/LPNs**

Data Access **Edit**

- ☒ Assign to Delivery
- ☒ Auto-create Deliveries
- ☒ Auto-create Trip
- ☒ Auto-pack
- ☒ Auto-pack Master
- ☒ Calculate Weight/Volume
- ☒ Create LPNs
- ☒ Assign Freight Costs
- ☒ Launch Pick Release
- ☒ Pack
- ☒ Packing Calculator
- ☒ Packing Workbench
- ☒ Pick and Ship
- ☒ Pick, Pack and Ship
- ☒ Pick Release Form
- ☒ Resolve Exceptions Form
- ☒ Split Line
- ☒ Unassign from Delivery
- ☒ Unpack
- ☒ UPS Address Validation
- ☒ UPS Rate and Service
- ☒ UPS Tracking
- ☒ UPS Time in Transit
- ☒ Cycle Count Delivery Line

Disable Actions Enable Actions

13. In the Data Access field, select:

- Edit to provide edit access to the lines/LPNs records.
- View to provide view-only access to the lines/LPNs records.
- None to provide no access to the lines/LPNs records.

Note: The delivery records also include delivery legs and packing slips.

14. From the list of lines/LPNs actions, select the action(s) that the user can perform.

Note: As a shortcut, choose the Disable Actions button to disable all the actions or the Enable Actions button to enable all the actions.

Copying an Existing Role

Copying a role is useful for creating a new role based on the privileges of an exiting role. Since copying automatically duplicates the original role, it saves you time from manually entering all the control privileges of the original.

You can edit the privileges of the copied role, save the role with a new name, and assign it to users.

To copy an existing role:

1. Navigate to the Shipping Execution Role Definition window.
2. Find the role that you want to copy.
3. Click New Record to create a new record.
4. From the Edit menu, select Duplicate—Record Above to create a new role based on the privileges of the original.
5. Save the new role.

Granting a Role to a User

You can grant a user a role in one organization or all organizations for a period of time. The role is assigned to a user by a *grant*. The grant is specific to a particular user and defines the role(s) assigned to the user, the organization where the grant is effective, the start date and optionally, an end date.

More than one grant can be assigned if the user requires different access controls to more than one organization. The start and end dates for grants can overlap.

For example, if a user requires full-access privileges to three organizations and view-only access to a fourth, the user must be assigned four grants—one for each respective organization (three full-access and one view-only grant). However, if only one grant is assigned, that grant becomes the default grant for the user.

In addition, the grant has the following requirements:

- A grant may or may not have one inventory organization selected.
- Many grants can be assigned for each role.

- A user can have one or more grants. If the user does not have any grant (expired, effective, or future), the default is view-only access to all organizations. If the user has grants, the user's access is controlled by the effective grants. If there are overlapping grants in the same organization or an intersection of grant date ranges, the union of grant privileges controls the user's access.
- A grant cannot be designated as the default grant.

A role can be assigned to a user that spans all organizations instead of granting a unique grant per organization. If an organization is not specified, the grant is applicable to all organizations.

Warehouse Organization

A grant can have one or all inventory organizations. If an organization is not specified, the grant is applicable to all organizations.

If the user's activities span more than one organization, for example, a stock picker who pick releases across multiple organizations (but not all), then separate grants for each organization must be created to associate the user, the user's role, and effective dates for the grant. Alternately, if you do not select a specific organization, the stock picker can pick across all organizations.

Note: Use caution when creating grants for all organizations (when no specific organization is selected). For example, if a user has a grant to view all organizations and a grant to perform actions on one organization, the union of these grants will enable the user to perform actions in all organizations.

Changing Organizations in the Shipping Transactions form

If a user's effective grants are single organization, the user can select an organization when opening the Shipping Transactions form or from the Tools menu—Change Organization. If all effective grants are in the same organization, the Shipping Transactions form defaults to that organization.

6. Place your cursor on the line with the role you want to view and click View Role.
7. Within the Lines/LPNs tab, check the Cycle Count Delivery Line box.
8. Ensure that Data Access is set to Edit.
9. Save your work.

Effective Dates for a Grant

Optionally, in the Start and End Date fields, you can enter a start and end date for the grant to assign it for specific period. For example, you can assign temporary employees a grant that is effective for the duration of their assignment. The date status for a grant can be endless, future or expired:

- **Endless:** If you enter a start date but no end date, the grant is effective for an indefinite period.
- **Future:** You can specify start and end dates for a grant so that the grant is effective only between those dates. For example, a temporary employee can be assigned a role that is effective for the duration of his/her contract. The start date can be a current or future date. You cannot back-date the date: for example, you cannot enter a start date of yesterday.
- **Expired:** When the end date of the grant expires, the user cannot access the Shipping Transactions form and perform the job duties unless assigned a new grant by the system administrator.

Note: If the user has expired and future grants but no effective grants, the user has no access to the Shipping Transactions form. If required, you can leave a gap between an expired grant and a future grant: for example, one grant can expire in June and another can begin in August.

To grant a role to a user:

1. Navigate to the Shipping Execution Grants window.

Figure 4–7 Shipping Execution Grants Window

| User | Role | Org | Start Date | End Date |
|-------------|--------------|-----|-------------|----------|
| 111 | Upgrade Role | | 31-MAY-2001 | |
| 222 | Upgrade Role | | 31-MAY-2001 | |
| 4BWEBB | Upgrade Role | | 31-MAY-2001 | |
| 4JDAUGHERTY | Upgrade Role | | 31-MAY-2001 | |
| 4RABBOTT | Upgrade Role | | 31-MAY-2001 | |
| 4RBROOKS | Upgrade Role | | 31-MAY-2001 | |
| 4RMCDONALD | Upgrade Role | | 31-MAY-2001 | |
| AAMBROS | Upgrade Role | | 31-MAY-2001 | |
| ABERTHIE | Upgrade Role | | 31-MAY-2001 | |
| ABOASE | Upgrade Role | | 31-MAY-2001 | |

Define Role View Role

2. In the User field, select the user's name.
3. In the Role field, select the role that you want assigned to the user.

Note: To view the available privileges for a selected role, click View Role to display the Shipping Execution Role Definition window.

4. In the Org field, select the organization to which the grant is assigned (optional). A user can be assigned only role per warehouse (organization). However, you can assign a different role to a different warehouse.
5. In the Start Date, enter the date you want the role to start.
6. In the End Date field, enter the date that you want the role to end. If you do not want the role to end, leave the field blank.

Once the grant is saved, only the end date can be updated. However, the date cannot be updated once it has expired.

7. Save your work to activate the role.

Finding Grants and Roles

You can do a search to find current or expired grants, find users and their assigned grants, or find active grants for an organization(s).

You can do a search to find existing roles.

To find a grant:

1. Navigate to the Shipping Execution Grants window.
2. Choose the Find icon to display the Find Grants window.

Figure 4–8 Find Grants Window

The screenshot shows the 'Find Grants' window with the following fields and controls:

- User Names:** A text input field followed by a dropdown arrow.
- Role:** A text input field followed by a dropdown arrow.
- Org. Span:** A dropdown menu.
- Organization:** A text input field.
- Effectivity:** A dropdown menu.
- Start Dates:** A date range input field.
- End Dates:** A date range input field.
- Buttons:** 'Clear', 'New', and 'Find' buttons at the bottom.

3. Enter the User Names to find the users and their assigned roles.
4. Enter the Role name to find the available roles and the users assigned to them.
5. In the Org Span field, select:
 - Single Organization to find grants in one organization, or
 - All Organizations to find grants in all organizations.
6. Enter the Organization if you selected Single Organization for the Org Span, or leave blank if you left the Org Span blank.
7. Select the Effectivity for the role you are searching for. Select from:
 - Expired: All expired roles.
 - Effective: All current active roles.

- Future: All roles beginning on a future date.

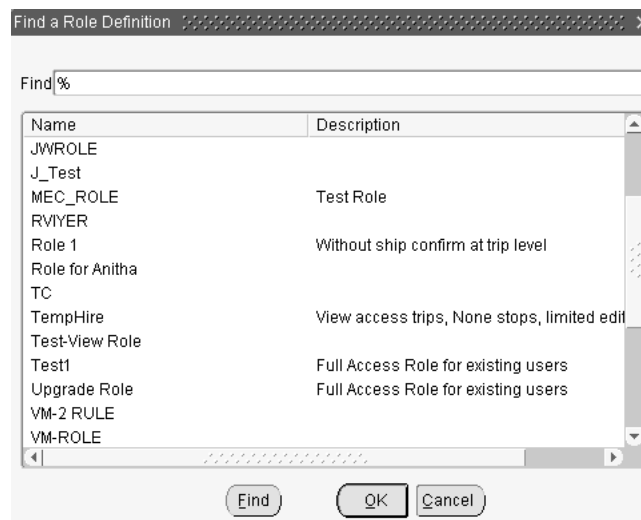
For example, if you wanted to search for expired roles, select Expired.

8. Select the Start dates or a range for the start dates.
9. Select the End dates or a range for the end dates.
10. Click Find to display the search results in the Shipping Execution Grants window.
 - Click View Role to see details about the assigned role.
 - Optionally, click Define Role to create a new role.
11. Save your work.

To find a role definition:

1. Navigate to the Shipping Execution Role Definition window.
2. Choose the Find icon to display the Find a Role Definition window.

Figure 4–9 Find a Role Definition Window



3. In the Find field, enter the name of the role and click Find.
The search results display in the Name column.

4. Select the role and click OK to display the role in the Shipping Execution Role Definition window.

Updating a User's Grant

At times, a user's assigned grant may need to be updated. For example, if the user gets promoted and requires a different set of privileges, the assigned role needs to be updated for the user's organization to reflect the changed responsibilities.

To change the role, you must end the user's existing role and assign a new role with the new privileges.

If you want to change the end date for a grant that has not expired, you can update the end date and saving the changes. If the date and grant has expired, the user must be granted a new grant (role).

Note: You cannot change a role by editing the role's parameters and saving the changes.

Updating a user's grant only affects that user, not all users assigned with the role.

To update a user's grant:

1. Navigate to the Shipping Execution Grants window.
2. Find the user whose role you want to update. The user and current role assignments display in the Shipping Execution Grants window.
3. If you are just updating the End Date, enter a new date in the End Date column and save the changes.

If you are ending a user's role and assigning another role:

4. Enter an end date in the End Date column of the role you want to end.
5. Select the new role, the Org to which the new role is assigned, and the start and end dates of the new role.

The start date must follow the end date of the role that you are updating. The new role is effective when it reaches its start date.

6. Click Save to save your work.

Defining Shipping Parameters

You can define the default values for basic shipping information such as units of measurement, pick release rules, weight and volume calculations, and delivery grouping rules. Shipping parameters are organization specific.

The parameters are arranged into the following tabbed regions in the Shipping Parameters window:

- **General:** You can define shipping units of measurement such as weight, volume, and the unit of measure used for percent fill basis calculations
- **Pick Release:** You can define release rules, pick slip grouping rules, release sequence rules, and printing parameters
- **Shipping Transaction:** You can define automatic or manual weight and volume calculations, container volume calculations, container inventory control, and goods dispatched (COGS) account
- **Delivery Grouping:** You can define how to group delivery lines for a delivery

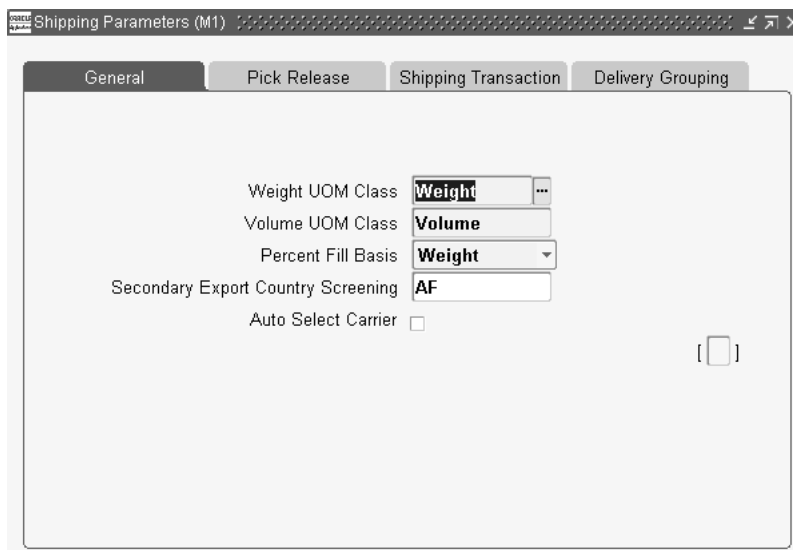
Defining General Parameters

You can define unit of measure (UOM) parameters such as weight and volume, and select the unit of measure used for percent fill basis calculations. The units of measure you select as the default are used when you calculate the weight and volume of deliveries and the fill percentage of containers.

To define general parameters:

1. Navigate to the Shipping Parameters window.

Figure 4–10 Shipping Parameters Window - General Tab

The screenshot shows the 'Shipping Parameters (M1)' window with the 'General' tab selected. The window has four tabs: 'General', 'Pick Release', 'Shipping Transaction', and 'Delivery Grouping'. The 'General' tab contains the following fields:

- 'Weight UOM Class' with a dropdown menu showing 'Weight' and a three-dot icon to its right.
- 'Volume UOM Class' with a dropdown menu showing 'Volume'.
- 'Percent Fill Basis' with a dropdown menu showing 'Weight'.
- 'Secondary Export Country Screening' with a text field containing 'AF'.
- 'Auto Select Carrier' with an unchecked checkbox.

At the bottom right of the main content area, there is a small icon of a container with the text '[]' next to it.

2. Select the General tab.
3. Select the default Weight UOM Class from the valid UOM classes.
4. Select the Volume UOM Class from the valid UOM classes.

Note: The seeded values shown in the UOM class are created in Oracle Inventory.

5. Select the default unit of measure for the Percent Fill Basis of a container. You can select Weight, Volume, or Quantity. Percent Fill Basis is used to determine if containers have met their minimum fill percentage requirements.

If you choose Weight or Volume, the calculation uses the item and container physical attributes in Oracle Inventory.

If you choose Quantity, the calculation uses the Container Load Relationship details to determine the maximum number of items that will fit into the container.

6. In Secondary Export Country Screening, select a Country Code.

If you integrate with an International Trade Management Partner, you can screen against the parent country (for example, country where headquarters is located) as well as the country from which the shipment is being exported. This parameter specifies the default parent country. For example, if policy requires that you perform screening for Brazil where the shipment originates and the country where your company headquarters is located, e.g. France, then enter France as your Secondary Export Country Screening value.

Another example, if you want to perform screening against standards set by the United States, even though your shipping facility is in Italy, you could enter United States as the parameter.

7. Select Auto Select Carrier to enable systematic carrier selection.

The carrier selection process will automatically select a carrier and optionally service level, mode of transport, and freight term for a delivery based on Routing Guide Rules defined in Oracle Transportation. Routing Guide Rule criteria is used to evaluate a delivery based on the delivery weight/volume, delivery ship to/ship from geographic regions and zones, and delivery transit time. Automated carrier selection occurs during the delivery creation process. The delivery can be created by invoking the actions Auto-create Deliveries, Auto-create Trip, or Launch Pick Release on the Shipping Transactions form. However, if a ship method is selected on the sales order, automated carrier selection will not override the selected ship method. Additionally, manual carrier selection can be invoked by selecting the action Select Carrier on the Shipping Transactions form if Oracle Transportation is installed.

Invoking automated carrier selection at Pick Release requires enabling the fields Auto Select Carrier and Autocreate Deliveries on shipping parameters form. Invoking automated carrier selection when Auto-creating Deliveries requires enabling the field Auto Select Carrier on the shipping parameters form.

Note: You must have Oracle Transportation installed to utilize carrier selection.

8. Save your work.

Defining Pick Release Parameters

You can define default picking criteria that is used at pick release. You can also select the default settings for auto-detailing and auto-creating deliveries.

To define pick release parameters:

1. Navigate to the Shipping Parameters window.

Figure 4–11 Shipping Parameters Window - Pick Release Tab

The screenshot shows the 'Shipping Parameters (M1)' window with the 'Pick Release' tab selected. The settings are as follows:

| Parameter | Value |
|-----------------------------------|-------------------------------------|
| Release Sequence Rule | All Standard Orders |
| Pick Slip Grouping Rule | Departure, Delivery |
| Print Pick Slip | At the End |
| Default Pick Release Document Set | All Pick Release Documents |
| Autocreate Delivery Criteria | Within An Order |
| Default Stage Subinventory | Staging1 |
| Default Stage Locator | |
| Number of Pick Slip Lines | |
| Ship Confirm Rule | |
| Autopack Delivery | No |
| Autocreate Deliveries | <input checked="" type="checkbox"/> |
| Auto Allocate | <input checked="" type="checkbox"/> |
| Enforce Ship Sets and Ship Models | <input type="checkbox"/> |
| Plan Tasks | <input type="checkbox"/> |

2. Select the Pick Release tab.
3. Select the Release Sequence Rule.

During pick release, this rule determines the order in which order lines reserve against inventory. It appears as the default release sequence rule in the Release Sales Order window.

Note: It is recommended that you select the most frequently used release sequence rule; although it becomes the default, you can change it any time you launch pick release.

4. Select the Pick Slip Grouping Rule. This rule dictates how the released delivery lines are grouped on pick slips and how the pick slip number is generated by pick release. It appears as the default pick slip grouping rule in the Release Sales Order form.

Note: It is recommended that you select the most frequently used pick slip grouping rule; although it becomes the default, you can change it any time you launch pick release.

5. From the Print Pick Slip list of values, select when you want the pick slips printed.
 - If you select At the End, a pick slip will be generated when all items within the pick slip are completely released.
 - If you select Immediate, you specify the number of lines per pick slip. Whenever this threshold is reached, a pick slip document is submitted, and the rest of the pick release documents are submitted at the end of the pick release process. For example, if there are 20 custom defined lines, all pick slips belonging to these 20 lines are printed in a single pick slip report. The number of pick slips printed depends on the pick slip grouping rule and the custom defined lines. This choice typically has less impact on system resources.
6. Select the Default Pick Release Document set to be printed at Pick Release. The list of values displays all document sets.
7. Select the Autocreate Delivery Criteria to automatically create deliveries for lines that have been successfully released for shipment:
 - Select Within An Order to auto-create deliveries whose lines all belong to the same sales order.
 - Select Across Orders to auto-create deliveries across orders. All delivery lines that are shipping to the same customer ship to address appear on one delivery.

Auto-create deliveries only applies to non-trip releases. Autocreated deliveries are grouped together based on rules that include criteria selected in the Shipping Parameters window.

Note: There are 6 descriptive flex field defaulting types supported when auto-creating deliveries:

1. SQL Statement (Not having references to:\$FLEX\$.<VALUE_SET_NAME> and:block.field).
 2. Constant
 3. Current Date
 4. Current Time
 5. Previous Segment
 6. Profile Option value
-

7. Select the Default Stage Subinventory.

The process of Pick Confirmation transfers move orders to this staging subinventory. The list of values displays all subinventories in the organization. Staging subinventories should be reservable.

8. Select the Default Stage Locator.

Move orders move material to this locator. The list of values displays all locators in the Default Stage Subinventory.

9. Enter the Number of Pick Slip Lines to print on each pick slip.

If Print Pick Slip is Immediate, enter the maximum Number of Pick Slip Lines to print on each pick slip. For example, if Number of Pick Slip Lines is 25 and pick release selects 40 lines, it prints two pick slips, one with 25 lines and the other with 15 lines.

10. Select a Ship Confirm Rule that your organization will utilize as a default for auto ship confirming.

Note: If you want to define a default Ship Confirm Rule, you must select Ship All as your option when you define your Ship Confirm Rules in the Ship Confirm window.

11. Select Autopack Delivery to set the default for this field in the Release Sales Orders window. From the list of values, select either No, Yes, or Autopack Master.

You can auto-pack delivery lines for a delivery into LPNs (containers). When you auto-pack a delivery, the delivery lines are grouped together by shared attributes such as the Ship To location, and are packed into LPNs based on the grouping and LPN type.

Once a delivery is packed, the delivery line information cannot be changed until you unpack the delivery. If the Weight/Volume Calculation in Shipping Parameters is set to Automatic, the weight and volume is calculated at ship confirm.

- No: Auto pack will not be enabled
 - Yes: Auto pack will be enabled and delivery line items will be systematically packed into LPNs based on container-item relationships
 - Autopack Master: Auto pack will be enabled and delivery line items will be systematically packed into LPNs based on container-item relationships and the container will then be packed into another container, such as a freight container for transport.
12. Use Autocreate Deliveries to specify your preference for delivery creation. You can override this preference at pick release execution.
 - Selected: Pick release automatically creates deliveries based on the Delivery Grouping Rules and assigns delivery lines to them. When pick releasing, the Auto Create Deliveries check box in the pick release form defaults to this parameter setting if you enter a warehouse. If you do not enter a warehouse, pick release uses this parameter setting from the organization of the warehouse on each sales order line.
 - Cleared: Pick release does not automatically create deliveries.
 13. Use Auto Allocate to specify how you want order lines allocated (reserved):
 - Selected: Pick release creates move orders and allocates them.
 - Cleared: Pick release creates move orders. You manually allocate the order lines using the Inventory Transact Move Orders window.
 14. Select if you want to Enforce Ship Sets and Ship Models during picking:
 - If you do not select the Enforce Ship Sets and Ship Models box, delivery lines for ship sets and ship models are not validated during picking even if the ship set is specified on order lines.

Note: Depending on your business needs, you must set up the Enforce Ship Sets and Ship Models parameter for each warehouse.

- If you select the Enforce Ship Sets and Ship Models box, delivery lines for ship sets and ship models are validated during picking. All order lines in ship sets are either released completely or auto-backordered during pick release. If any portion is not available, then all lines in the entire ship set are backordered.

When you create the order, you must specify if you want to retain (or not retain) the ship set for the back-ordered lines. You can do this in the Sales Order window in Order Management.

Note: Ship sets for non-transactable delivery lines are validated during ship confirm. However, a ship set for non-transactable delivery lines is not validated during pick release because the item(s) are not picked from inventory.

15. Select Plan Tasks if Oracle Warehouse Management is enabled within your organization. For more information, refer to the *Oracle Warehouse Management User's Guide*.

Defining Shipping Transaction Parameters

You can define parameters for your shipping transactions such as automatic or manual weight and volume calculations, container volume calculations, and the goods dispatched account.

To define shipping transaction parameters:

1. Navigate to the Shipping Parameters window.

Figure 4–12 Shipping Parameters Window - Shipping Transaction Tab

The screenshot shows the 'Shipping Parameters (M1)' window with the 'Shipping Transaction' tab selected. The window contains several configuration fields and checkboxes.

| Parameter | Value |
|-------------------------------|------------------------|
| Default Delivery Document Set | Ship Confirm Documents |
| Weight / Volume Calculation | Automatic |
| Enforce Packing in Containers | No |
| Container Inventory Control | Optional |
| Goods Dispatched Account | 01-510-5110-0000-000 |
| Freight Class Category Set | |
| Commodity Code Category Set | |

Across All Organizations

| | | | |
|---------------------|--------------------------|------------------------|-------------------------------------|
| Enforce Ship Method | <input type="checkbox"/> | Allow Future Ship Date | <input checked="" type="checkbox"/> |
| Defer Interface | <input type="checkbox"/> | | |

2. Select the Shipping Transaction tab.
3. Select the Default Delivery Document Set that prints as part of the ship confirm process.

The list of values displays the valid delivery document sets. For more information, see: [Defining Shipping Document Sets](#).

4. Select a value for Weight/Volume Calculation.

If you select Automatic, the following measurements are calculated automatically at ship confirm:

- Weight and volume of the trip or delivery
- Fill percentage of the containers

If you select Manual and then you manually enter weight and/or volume values for a delivery line or delivery, the following results will occur:

- If the shipped quantity is equal to or greater than the requested quantity, then the manually entered values are retained after ship confirm
- If the shipped quantity is less than the than the requested quantity, then the manually entered values are overwritten after ship confirm

5. Select a value for Enforce Packing in Containers:

- If you select Yes, ship confirm displays a warning when confirming a delivery or trip with unpacked delivery line items. You can bypass the warning and complete the shipment.
- If you select No, ship confirm does not display the warning.

6. Container Inventory Control is for future use.

7. Select a default Goods Dispatched Account.

Use the Cost of Goods Sold (COGS) account for this organization. The sales order issue transaction uses this account if the Oracle Order Management workflow cannot determine one.

8. Freight Class Category Set is for future use.

9. Commodity Code Category Set is for future use.

10. Select one of the following for the enforce ship method:

- Select the Enforce Ship Method check box to enforce that a ship method (carrier) is entered and recorded for each shipment. This is recommended if your business practices require a record of the ship method/carrier for each shipment.

During order processing, if a ship method has not been entered; an error message appears at ship confirm and you are prevented from ship confirming until a ship method is entered. You can enter the ship method in the Confirm Delivery window, the Delivery tab of the Shipping Transactions form, or the Sales Order window [Line Items tab > Shipping tab > Shipping Method field].

- If the Enforce Ship Method check box is not selected, the ship method is not enforced at ship confirm and an error message does not display. For

example, if your organization uses the same ship method (carrier) for all shipments, you may not want to enforce the selection of a ship method.

11. Select or clear Allow Future Ship Date.

- If you select it, you can enter a future date as the Actual Departure Date while ship confirming the delivery
- If you clear it, you should not enter a future date as the Actual Departure Date while ship confirming the delivery because you receive an error

12. Select the Defer Interface check box if you want to defer shipping interfaces from initiating updates to the interface tables. If you defer the interface, you must manually run the interface to update the interface tables. For example, if you defer the Inventory Interface, the inventory tables are not updated until you manually run the Inventory Interface in the Shipping Interfaces window.

If you do not select the Defer Interface check box, the interfaces are run automatically at ship confirmation.

Note: If you select the Defer Interface check box, all interfaces are deferred. You cannot defer selected interfaces.

13. Save your work.

Defining Delivery Grouping Parameters

Delivery grouping parameters enable you to define how to group delivery lines for a delivery. The mandatory default attributes are Ship From Location and Ship To Location; however, you can select optional grouping parameters that include:

- Customer
- Freight Terms
- FOB Code
- Intermediate Ship To location
- Ship Method

The delivery grouping attributes determine how delivery lines are grouped into deliveries when auto-creating deliveries. For example, if the grouping parameter *Customer* is selected as the delivery grouping attribute, the delivery lines are grouped into deliveries by customer: for example, deliveries for Customer A are grouped into Delivery A, deliveries for Customer B are grouped into Delivery B.

You can select more than one grouping attribute to refine your grouping criteria further: for example, if you select Customer and Ship Method as grouping criteria, delivery lines with the same customer and carrier criteria are grouped into deliveries.

If each optional grouping attribute is checked, the delivery's corresponding field cannot be updated if delivery lines are assigned to the delivery. This ensures that the delivery lines' grouping criteria is not broken by a different attribute value: for example, if someone tries to select a different ship method.

If each optional grouping attribute is unchecked, its field in the delivery record can be updated until the ship confirm stage.

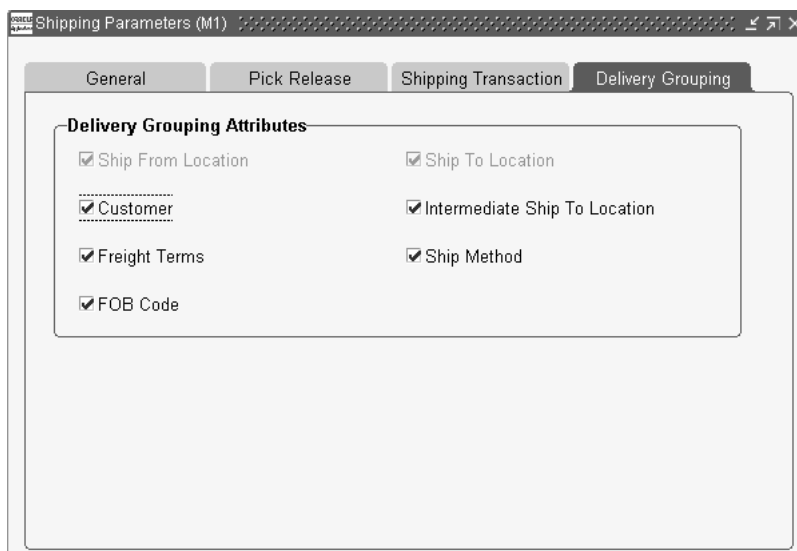
For example, if you want to change the Ship Method in the delivery and do not need to enforce it as a grouping attribute, you can unselect Ship Method.

Do not change these options if you have and deliveries that are not ship confirmed.

To define delivery grouping parameters:

1. Navigate to the Shipping Parameters window.

Figure 4–13 Shipping Parameters Window - Delivery Grouping Tab



2. Click the Delivery Grouping tab.
3. Choose the attribute(s) for grouping the delivery lines.
4. Save your work.

Defining Freight Carrier Ship Methods

Freight Carriers

A freight carrier is a commercial company that transports shipments to and from customers, suppliers, and internal organizations. You must set up each carrier's information as a party in Oracle Shipping Execution before shipping goods; you should assign a carrier to each delivery. You also must associate a general ledger account with each carrier to collect associated costs.

Before you set up the carriers:

- Collect general information about each carrier
- Determine the types of services that your carriers offer and that you use

To define a freight carrier:

1. Navigate to the Carriers window.

Figure 4–14 Carriers Window

The screenshot shows the 'Carriers' window in Oracle. The 'Name' field is 'Best LTL', 'Short Name' is 'BEST', and 'Default Currency' is 'USD'. The 'Active' and 'Enable Manifesting' checkboxes are checked. The 'Services' tab is selected, showing a table with columns 'Service Level', 'Mode', and 'Ship Method'. The first row contains 'Standard', 'LTL', and 'BEST-LTL-Standard'. Below the table are buttons for 'Define Service Levels' and 'Organization Assignments'.

| Service Level | Mode | Ship Method |
|---------------|------|-------------------|
| Standard | LTL | BEST-LTL-Standard |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

- 2. Enter the Name and Short Name for the carrier.
- 3. Enable the Active and Enable Manifesting check boxes if applicable.

Note: One other setup step is required to enable manifesting. At the Organization Parameters Window, ATP, Pick, Item-Sourcing tab, you must enable the Carrier Manifesting Organization check box. This setup must be performed for each warehouse that will conduct manifesting.

Note: Manifesting enables Oracle Transportation to send messages to carrier manifesting systems. The messages upload delivery detail information that rates the delivery, determines freight costs, and prints labels and other paper work.

Enable Manifesting can only be utilized if Oracle Transportation is installed.

4. In SCAC Code, enter the standard carrier alpha code.
5. Enter the carrier's Default Currency.

Note: The Default Currency is used in conjunction with Oracle Transportation's freight rating engine, if Oracle Transportation is installed.

6. In the top portion of the Main tabbed region, enter address and site information for the carrier.
7. Navigate to the Services tabbed region.
8. Select the Service Level for this carrier.

Examples of Service Level include: next day air, ground, and next day air early AM.

9. Select the Mode (of transportation) for the carrier.

After you enter each Service Level and Mode combination, Oracle Shipping Execution assigns a ship method and displays it in the Ship Method field. The format of the generated ship method is <carrier short name>-<transportation mode>-<service level>, for example, Truck-LTL-Ground.

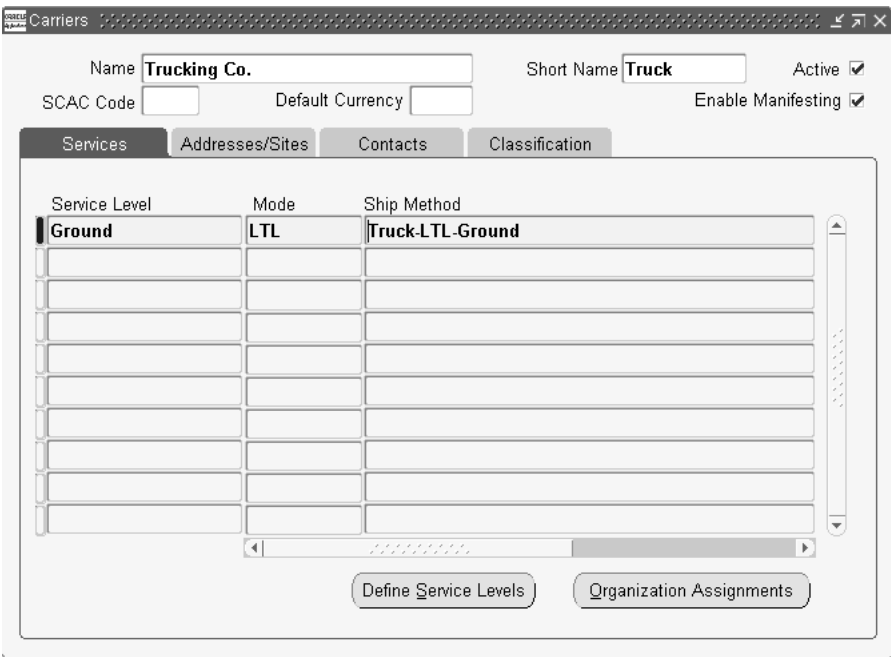
Note: You can change the name of the generated Ship Method after it has been generated as long as it is unique.

Certain carriers offer services with time estimates or guarantees. You can record this information in the Service Times fields and then use it later for reference when deciding which of this carrier's many services to use for a certain delivery.

Note: Assemble the times so that both of them are in the same unit of time. Enter the best case time in Service Times Min, enter the worst case time in Service Times Max, and select the unit of time of both of them in Service Times Period.

- 10. Select Enable if you will be assigning this ship method to organizations and to deliveries in Oracle Shipping Execution. Select Web Enable if you will be assigning this ship method in Oracle iStore.
- 11. Save your work.

Figure 4–15 Carriers Window 2



- 12. If you need to define a new Service Level that is not identified, select Define Service Levels.
- 13. The Oracle Shipping Carrier Service Levels Lookup window displays the carrier service levels lookups.

14. Select any line and the New icon on the toolbar.
15. Enter a unique Code for your lookup.
16. Enter a Meaning and Description for your lookup code.
17. Optionally, enter a Tag number.
18. The From Effective Date will default to the current date.

You can modify this field to another future date if needed. Optionally, enter a To Effective Date that will disable your lookup.

19. Verify that the Enabled check box is selected.

Figure 4–16 Oracle Shipping: Carrier Service Levels Lookups Window

Oracle Shipping: Carrier Service Levels Lookups

Type: **WSH_SERVICE_LEVELS**

User Name: **Carrier Service Levels**

Application: **Oracle Shipping**

Description: **Lookup for LOV in Service Level Field in Carrier Servi**

Access Level:

- ☐ User
- ☒ Extensible
- ☐ System

Effective Dates: From To Enabled

| Code | Meaning | Description | Tag | From | To | Enabled |
|------|----------------------|------------------------|-----|-------------|-------------|-------------------------------------|
| 1DA | Next Day Air | Next Day Air | | 16-MAR-2002 | | <input checked="" type="checkbox"/> |
| 1DM | Next Day Air Early A | Next Day Air Early AM | | 16-MAR-2002 | | <input checked="" type="checkbox"/> |
| J1B | Next Day by 2pm | Next Day Air Afternoon | | 18-MAR-2003 | | <input checked="" type="checkbox"/> |
| 1DP | Next Day Air Saver | Next Day Air Saver | | 16-MAR-2002 | | <input checked="" type="checkbox"/> |
| 2DA | 2nd Day Air_1 | 2nd Day Air | | 16-MAR-2002 | | <input checked="" type="checkbox"/> |
| 2DM | 2nd Day Air AM | 2nd Day Air AM | | 16-MAR-2002 | | <input checked="" type="checkbox"/> |
| 3DS | 3 Day Select | 3 Day Select | | 16-MAR-2002 | | <input checked="" type="checkbox"/> |
| 998 | FedEx 2 Day | FedEx 2 Day | | 07-JAN-2003 | 12-JAN-2003 | <input checked="" type="checkbox"/> |
| D2D | Door to Door | Door to Door | | 16-MAR-2002 | | <input checked="" type="checkbox"/> |
| D2P | Door to Port | Door to Port | | 16-MAR-2002 | | <input checked="" type="checkbox"/> |

20. Save your work and return to the Carriers window.
21. Save your work.
22. Click Organization Assignments.

Figure 4–17 Organization Assignments-Carrier Service Window

| Code | Name | Assigned |
|------|--------------------------------|------------------------------|
| AG1 | Aggregate Manufacturing | <input type="checkbox"/> [] |
| AV1 | Average Org Created by RT | <input type="checkbox"/> [] |
| AV2 | Average Org 2 Created by RT | <input type="checkbox"/> [] |
| C1 | C1-Redwood City | <input type="checkbox"/> [] |
| C2 | C2-Foster City | <input type="checkbox"/> [] |
| CG1 | Progress UK Central Government | <input type="checkbox"/> [] |
| CHI | CRL Chicago | <input type="checkbox"/> [] |
| CM0 | Vision Communications Master | <input type="checkbox"/> [] |
| CM1 | Vision Communications (USA) | <input type="checkbox"/> [] |
| CM2 | Vision Comms, San Francisco | <input type="checkbox"/> [] |

Unassign All Assign All Done

23. Select Assigned to assign the ship method to the organizations that use it. You can assign the ship method to more than one organization.

Note: If you want to assign the ship method to all of your organizations, click Assign All to have all organizations' Assigned field selected. If you want to begin again with your assignments, click Unassign All to have all organizations' Assigned field cleared.

24. Click Done.
25. Save your work.
26. Select the Addresses/Sites tab.

The information on the Carrier Site Details - Address/Sites tab pertains to contacts at the local carrier site, such as a dispatch center.

Note: Existing addresses and contacts will be displayed. You can edit an existing site using the Edit button, or you can create a new Address/Site by clicking New.

27. Click New or Edit depending on your business needs.
28. Select the Country from the list of values.
29. Enter a unique Site Number.
30. Enter the Address, City, State, County, Postal Code, and Province as required.

Figure 4–18 Carrier Site Details Window - Address Tab

31. Select the Contacts tab.
The information on the Carrier Site Details - Contacts tab pertains to contacts at the local carrier site, such as a dispatch center.
32. Optionally, enter a contact Number.
33. Enter the Last Name, First Name, Title, Job Title, and Email Address as needed.
34. Enter the Country Code, Area Code, Telephone Number, Extension, and Type as needed.
35. Select the Active check box to indicate whether or not the contact is a current employee.

Note: Contacts cannot be deleted.

Figure 4–19 Carrier Site Details Window - Contacts Tab

| Number | Last Name | First Name | Title | Job Title | Email Address | Status | Accepts Load Tender |
|--------|-----------|------------|-------|-----------|----------------------|-------------------------------------|--------------------------|
| 22 | Evans | Dave | MR. | Manager | devans@truckingco.co | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> | <input type="checkbox"/> |

| Country Code | Area Code | Telephone Number | Extension | Type |
|--------------|-----------|------------------|-----------|-----------|
| 1 | 550 | 555-0555 | | Telephone |
| | | | | |
| | | | | |

36. Save your work.

Note: If you are using Oracle Transportation, you can select Accepts Load Tender if this contact is applicable.

37. Select the Transportation tab.

The information in the Carrier Site Details Window – Transportation tab is used exclusively by Oracle Transportation to support load tendering functionality. If you do not have Oracle Transportation installed, it is not necessary to perform any setup here.

38. In the Load Tender Setting region, enter the following:

- **Required check box:** Enabling the Required check box opens other fields for update within the Transportation tab. You can continue to enter appropriate attributes that will setup load tendering for this carrier.
- **Default Load Tender E-Mail:** Indicates the email address to which the load tender request will be transmitted. If the Required check box is enabled, then Default Load Tender E-Mail is a required field. Choices within this email field depend on the contacts listed on the Contact tab. If you have multiple contacts and their Accepts Load Tender check box is enabled, then they will display in

the email list of values. If only one contact is enabled as Accepts Load Tender, then that person will default into the Default Load Tender E-Mail field.

- **Auto Accept Load Tender:** Select this check box if you do not expect the carrier to acknowledge acceptance of loads tendered. Some shippers have agreements with carriers that all tenders are accepted. In this particular case a shipper may not request the carrier to respond to each tender request.
- **Tender Wait Time:** Defines how long the shipper will wait for a response to a load tender from a carrier. If the wait time is reached without a carrier response being made, the workflow will time-out and a notification will be sent to the shipper. The shipper can re-tender the load to a new carrier. The wait time can be defined in terms of hours, days, or weeks and is set by the shipper. If Auto Accept Load Tender is enabled, then these fields are protected from update.
- **In the Load Tender Update Notification Threshold region,** enter threshold values for weight and/or volume. If the characteristics of a delivery change after the load tender request is transmitted and the weight and volume variations exceed or fall below the defined thresholds, then a tender update message will be triggered to notify the carrier. The threshold settings enable you to control the circumstances that will trigger an update message for the carrier. For example, you may not want to update the carrier if you add a pair of shoes to a tendered delivery, but if you add a desk to the delivery it may significantly change the dimensions of the load and should trigger an update.

For additional information on Load Tendering, refer to the *Oracle Transportation User's Guide*.

39. To enter distribution accounts, return to the Carriers window, place your cursor in the Name field and, from the Tools menu, select Distribution Accounts.

Figure 4–20 Freight Carriers - Distribution Accounts Window

| Carrier Short Name | Carrier Name | Organization | Distribution Account | Inactive After | |
|--------------------|----------------|--------------|----------------------|----------------|--------------------------|
| SAIA | SAIA1 Trucking | M1 | | 26-FEB-2003 | <input type="checkbox"/> |
| SAIA | SAIA1 Trucking | C1 | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |

40. For each organization to which the carrier is assigned, enter the Distribution Account. If Inactive After displays a date, it is the date that the carrier became inactive in the organization (the Organization Assignments form, Active checkbox is cleared).
41. Save your work.
42. In the Contact tab, enter contact information for the carrier's centralized corporate contracts, such as, sales representative, pricing manager, customer service rep. Mark the current contact as Active, mark the current telephone numbers of each contact as Active, and select one telephone number for each contact as the Primary.
43. Within the Classification tab, you can select the Class Category that the carrier belongs to.
44. Save your work.

Ship Method

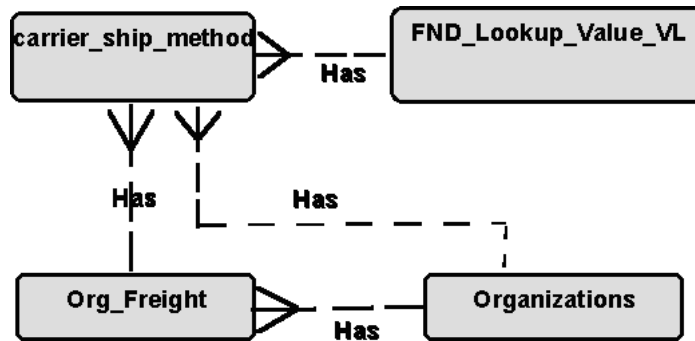
Upgrade Processing

At upgrade, the information in ORG_FREIGHT will be upgraded to FND_LOOKUP_VALUES. You should not have to maintain freight carrier and ship method information immediately after the upgrade; you can then begin to maintain any changes after this point.

Ship Method Defaulting Rule

For the ship method to pass from the sales order to the Shipping Transactions form, it must appear at the line level. To accomplish this, create a defaulting rule such that ship method defaults automatically from the sales order header to all sales order lines. The procedure appears later in this section.

Figure 4-21 *Default Ship Method Example*



To create a ship method defaulting rule:

1. Navigate to the Defaulting Setup - Entity Attributes window.
2. Choose the flashlight icon to display the Entity window.
3. Select Order Line as the entity and click OK.
4. From the attribute list, select Shipping Method.
5. Click Defaulting Rules.
6. In the Defaulting Conditions section, enter 1 as the precedence and select Always as the defaulting condition.
7. In the Default Sourcing Rules section, enter 1 as the sequence and select Related Record as the source type.
8. In the Default Source/Value section, select Order Header.Shipping Method.
9. Save your work.
10. Enter a sales order to verify that the defaulting rule is working properly. Select a ship method in the order header, enter a sales order line, then verify that the line ship method matches the header ship method.

Defining Freight Costs

You can define allowable freight costs and suggested amounts for shipments. These amounts are applied at ship confirm or once a delivery line is planned. You can add multiple freight costs to a shipment from the list of allowable freight cost types that you define.

Note: If necessary, you can override the freight costs and suggested freight amounts at ship confirm.

You can also define multiple freight costs for a specific freight cost type. For example, if you want to track different types of insurance, you can create different insurance costs under the insurance freight cost type such as liability insurance or shipping insurance.

When you add freight costs at ship confirmation for a foreign currency order, you can use either your functional currency or the order's foreign currency. If you use your functional currency, the freight charges are converted to the order currency through Oracle Receivables.

Note: You should define all your freight costs in your functional currency for uniformity. You can then modify the currency to match the order, and modify the amount on the Confirm Shipments window, as necessary.

Prerequisites

- Define your Freight Cost Type Lookups.
- To pass freight costs to Order Management and Accounts Receivable so that the customer is invoiced (for example, freight terms = Prepay and Add), then a pricing modifier and pricing formula are required.

See

- *Oracle Pricing User's Guide*

To define freight costs:

1. Navigate to the Freight Cost Types window.

Figure 4–22 Freight Cost Types Window

| Name | Type | Currency | Amount | From | To |
|----------|----------------|----------|--------|-------------|----|
| Handling | Handling Costs | USD | 7.50 | 06-SEP-2000 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Description

2. Enter a Name for the freight cost.
3. Select the Type of freight cost.
4. Select a Currency for the freight cost.
5. Enter the Amount for the freight cost.
You can change this amount during ship confirmation. You can enter 0 as the amount.
6. Optionally, enter Effective dates for the freight cost.
7. Save your work.

Defining Shipment Transit Times

Within the Inter-Org Shipping Methods window, you can specify the Ship Method, Intransit Times, Load Weight and the Volume Capacity for any movement between two location types.

Note: Within Oracle Inventory, you must set up the relationship between organizations before using this window. You must also specify the Ship Method and other associated parameters for the interlocation movement of the goods.

Entering ship methods:

- 1. Navigate to the Transit Times window.

Figure 4–23 Transit Times Window

| From Location Type | From Location | Description | Destination Type | Destination | Description |
|--------------------|----------------|----------------------|------------------|---------------------|-----------------------|
| Internal | S1- Chicago:45 | Chicago Subassemb | Internal L... | M1- Seattle:3455 10 | Seattle Mfg Plant 1 u |
| Internal | S1- Chicago:45 | Chicago Subassemb | Internal L... | M2- Boston:393 Ber | Boston Mfg Plant 2 u |
| Internal | S1- Chicago:45 | Chicago Subassemb | Internal L... | M3- Dallas:222 Wes | Dallas Mfg site used |
| Internal | D2- Miami:3456 | Miami Distribution C | Internal L... | M1- Seattle:3455 10 | Seattle Mfg Plant 1 u |
| Internal | D2- Miami:3456 | Miami Distribution C | Internal L... | M3- Dallas:222 Wes | Dallas Mfg site used |

| Ship Method | Intransit Time | Daily Capacity | Load Weight UOM | Cost Per Unit | |
|---------------|----------------|----------------|-----------------|---------------|--|
| Air Freight | 1 | | | | |
| Overnight Air | 1 | | | | |
| Truck | 3 | | | | |
| | | | | | |
| | | | | | |

- 2. Click the New icon in the tool bar.
- 3. In the From Location Type column, accept the default of Internal. (External is for future use.)
- 4. In the From Location column, select a location that the shipment will ship from.

5. In the Destination Type column, select Internal, Region, or Zone depending on the scenario for which you are defining the transit times and other information. (The selection External is for future use.)

Note: The Destination Type you select will determine the outcome in the Destination column. For example, if you select Internal, the Destination list of values will contain only internal organizations. If you select Region as the Destination Type, then click the Destination field and the Select Regions window displays to enable you to find a defined region. If you select Zone, the Destination list of values will contain only zones.

6. In the Destination column, select a location that the shipment will be destined.
7. Within the Ship Methods region, select a Ship Method.
8. Enter an Intransit Time.

Note: For a given ship method, ASCP/GOP will use the transit time to calculate ship or arrival date.

9. Enter Daily Capacity to define the maximum allowable daily load weight capacity that may be transported via this ship method.

Note: Daily Capacity serves as a parameter in Oracle Advance Planning applications and a penalty factor may be associated with exceeding the daily capacity.

10. Enter UOM for the weight unit of measure used for daily capacity, for example pounds, tons, or kilograms.
11. Enter Cost Per Unit for goods transported via this ship method for the specified From Location and Destination Type.
12. Enter the Currency associated with the cost per unit.
13. Enter the Daily Capacity to define the maximum allowable daily volume capacity that may be transported via this ship method.

Note: Daily Capacity serves as a parameter in Oracle Advance Planning applications and a penalty factor may be associated with exceeding the daily capacity.

14. Enter UOM for the volume unit of measure used for daily capacity, for example cubic feet or cubic meter.
15. Select Default Method if you want this ship method to default into the Sales Order pad for this combination of From Location and Destination Type when Oracle Advanced Planning and Scheduling is installed.

Global Order Promising will use the default ship method and its associated transit time if no shipment is specified on the sales order.

16. Save your work.

Finding and modifying information related to ship methods:

1. Navigate to the Inter-Org Ship Methods window.
2. Click the Find icon in the tool bar.
3. Enter the From and To criteria and click Find.
4. Within the Ship Methods region, add another Ship Method and the supporting information or modify the information for an existing ship method.

See

[Entering Ship Methods](#) on page 4-56

Defining Document Sequences

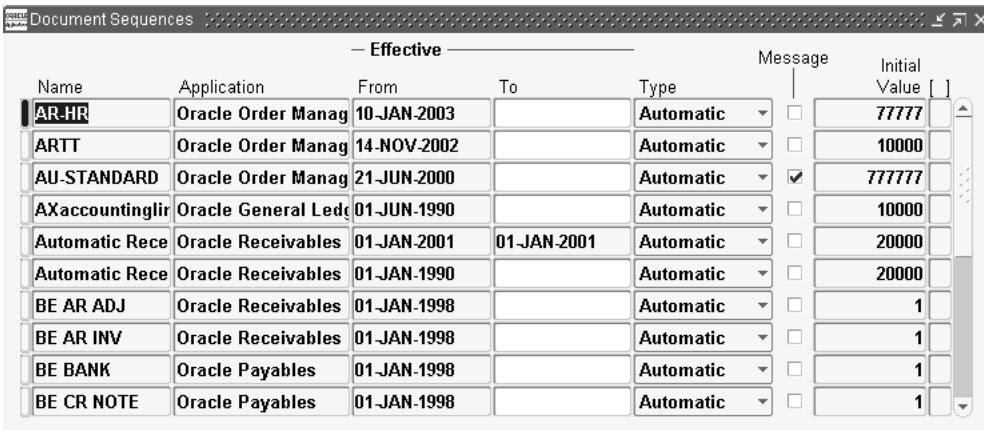
You can define document sequences to generate a unique numbering sequence for documents in an Oracle Applications product. For example, document sequencing can be used to uniquely number invoices generated by Oracle Receivables and bills of lading and packing slips in Oracle Shipping Execution.

Using the Sequence Assignments window, you assign your sequence to number only those documents that satisfy rules you define. Document sequences ensure that every document your users create can be accounted for.

To define document sequences:

1. Navigate to the Document Sequences window.

Figure 4–24 Document Sequences Window



The screenshot shows the 'Document Sequences' window with a table listing various document sequences. The table has columns for Name, Application, From, To, Type, Message, and Initial Value. The 'From' and 'To' columns are labeled 'Effective' in the header. The 'Message' column has a checkbox. The 'Initial Value' column has a text input field and a spinner control.

| Name | Application | From | To | Type | Message | Initial Value |
|-----------------|---------------------|-------------|-------------|-----------|-------------------------------------|---------------|
| AR-HR | Oracle Order Manag | 10-JAN-2003 | | Automatic | <input type="checkbox"/> | 77777 |
| ARTT | Oracle Order Manag | 14-NOV-2002 | | Automatic | <input type="checkbox"/> | 10000 |
| AU-STANDARD | Oracle Order Manag | 21-JUN-2000 | | Automatic | <input checked="" type="checkbox"/> | 777777 |
| AXaccountinglir | Oracle General Ledg | 01-JUN-1990 | | Automatic | <input type="checkbox"/> | 10000 |
| Automatic Rece | Oracle Receivables | 01-JAN-2001 | 01-JAN-2001 | Automatic | <input type="checkbox"/> | 20000 |
| Automatic Rece | Oracle Receivables | 01-JAN-1990 | | Automatic | <input type="checkbox"/> | 20000 |
| BE AR ADJ | Oracle Receivables | 01-JAN-1998 | | Automatic | <input type="checkbox"/> | 1 |
| BE AR INV | Oracle Receivables | 01-JAN-1998 | | Automatic | <input type="checkbox"/> | 1 |
| BE BANK | Oracle Payables | 01-JAN-1998 | | Automatic | <input type="checkbox"/> | 1 |
| BE CR NOTE | Oracle Payables | 01-JAN-1998 | | Automatic | <input type="checkbox"/> | 1 |

2. Define the document sequence Name and Application.

Note: Once the sequence name and application are selected, they cannot be changed.

3. Select an Effective From and To date.

The From field automatically defaults to the current date, and once a sequence is defined, the start date cannot be changed. If you leave the To field blank, your

document sequence does not expire; and if you enter an end date and define your sequence, the end date cannot be modified later. If there is no end date defined and there are no active assignments for a sequence, you can disable the sequence by entering the current date as the end date.

4. In the Type field, select Automatic. If you have certain localizations, select Gapless only under the direction of Oracle Support.
5. Enable the Message box to have each document display a message to inform the user of the sequence name and value (number).

The message displays in the message line near the bottom of the window.

Note: This check box only applies to sequences with the automatic type of numbering. Messages appear only on form displays, and are not written to a request's log file. Once a sequence is defined, the message choice cannot be changed.

6. Enter an Initial Value for the first document in your sequence. This field only applies to sequences with automatic or gapless numbering type.

If you leave this field blank, the first document is automatically assigned a value of 1. Once a sequence is defined, this initial value cannot be changed.

You can assign valid operating dates for document sequences, and set them to run manually or automatically during ship confirm and pick release. See: *Application Object Library*.

Defining Document Categories

You can create a document category for shipping documents such as a bill of lading (BOL) and assign it to a location or all locations. You can create more than one document category for a document, for example, if you want each carrier to have its own Bill of Lading number series, you can set up a unique document category to accommodate this requirement.

You must define a category for each bill of lading and packing slip you wish to create. You can create a bill of lading category for each ship method/carrier or define a single bill of lading category for all. When you use a different bill of lading sequence for each carrier, you can easily identify the carrier by looking at the bill of lading number.

In addition, you can tie a category to a specific location and have a different BOL sequence for the same carrier departing from a different location. For example:

- For a Trucking Co. Freight shipment departing from warehouse 1, the bill of lading number is WH1-12345-Trucking Co
- For a Trucking Co. Freight shipment departing from warehouse 2, the bill of lading number is WH2-55466-Trucking Co

When defining a document sequence for the packing slip, you can create a category for every location or one category for all locations. The document category is specific to a document type and location. The document category is also specific to the application and responsibility from which you accessed the form. If you create a document category called Viking BOL for WH1 in responsibility Oracle Order Management Super User, you must be working as Oracle Order Management Super User to have visibility of this category when assigning document sequences to it.

To view existing document categories:

1. Navigate to the Document Categories - Summary window.

Figure 4–25 Document Categories - Summary Window

| | Category Name | Document/Method | Document Type | Location |
|-------------------------------------|---------------|-----------------|---------------|----------|
| <input checked="" type="checkbox"/> | | | | |
| <input type="checkbox"/> | | | | |
| <input type="checkbox"/> | | | | |
| <input type="checkbox"/> | | | | |
| <input type="checkbox"/> | | | | |
| <input type="checkbox"/> | | | | |

2. Click the Find icon to display the list of existing document categories.
3. Select the document category, and click OK to display it in the Document Categories Summary window.
4. Select the document category and click Open.

To define a document category:

1. Navigate to the Document Categories window.

Figure 4–26 Document Categories Window

The screenshot shows the 'Document Categories' window with the following fields and options:

- Category Name:** ☒ Enabled
- Description:**
- Document:** []
- Category includes:**
 - Ship Methods:** ☒ All ☐ One
 - Locations:** ☒ All ☐ One
- Sequence:**
 - Prefix:
 - Suffix:
 - Delimiter:
 - Default Appearance:

2. Enter a Category Name and Description.
3. Select the Document assigned to the category; for example, Bill of Lading or Packing Slip.

Note: You can override this selection when you create documents; however, selecting a default here provides faster document definitions.

4. Within the Category Includes region, select the Ship Methods and Locations for the document types:
 - All: All ship methods and inventory locations are included.
 - One: Only the selected ship method and inventory location are included.

Decide at the initial setup whether to set up document categories and locations for All or One (individual) ship method and location. For example, you initially set up document category name SEQ3204 for bills of lading on deliveries shipped via carrier Viking. Then, you select One in the Ship Methods region. Later, you decide to enter a setup for All ship methods for the document Bill of

Lading. The individual bill of lading setup information is overridden by the All ship methods setup.

5. In the Sequence region, enter the Prefix, Suffix, and Delimiter for the sequence number to be printed on the document.
6. Preview the sequence name in Default Appearance.

Note: Enter any alphanumeric values for Prefix and Suffix. Typically, enter a value that identifies the location, carrier, or date in which document is generated. The delimiter separates the prefix and suffix from the generated number and can be any character.

7. Save your work.

Assigning Document Sequences to Document Categories

After defining document sequences and categories, assign document sequences to document categories. Assigning sequences is application and category specific.

You cannot change a document category definition. If you find incorrect information, create a new category with the correct information, re-assign document sequences to the new category, and disable the old category.

Either leave alone the existing Category or Disable it cautiously since it may affect other documents using the setting. For that reason disabling cannot be undone.

To assign document sequences to document categories:

1. Navigate to the Sequence Assignments form.
2. Choose Oracle Shipping as Application.
3. Choose the Document Category.
4. Select the Set of Books.
5. Select the Method:
 - Null
 - Manual
 - Automatic

Within the Assignment tab:

6. Enter the Start and End Dates.
7. Choose the Document Sequence.

Creating a Bill of Lading

When the above three processes have been completed, you can create a Bill of Lading and or Packing Slip for a delivery. Both documents can be generated as part of a document set that can be run at the completion of ship confirmation, or the documents can be created individually from the document request menu. The documents should also be generated automatically when you click Generate BOL and Create Packing List. A Delivery must meet the following prerequisites in order for a Bill of Lading to be created.

- The Delivery must be assigned to a trip
- The trip must have a ship method

There must be a document category for bill of lading that matches the ship method and ship-from location and it must currently be effective and have a sequence.

To create and print a Bill of Lading:

1. From the Shipping Transactions form, query your delivery.
2. Click Detail to open the Delivery window showing a single record.
3. Click the Path by Trip tab and enter the Ship Method for each trip to make sure that the trip has a ship method.
4. Save your work.
5. Click Detail.
6. Click on the Legs tab within the Detail window.
7. Click Generate BOL.

A bill of lading number will be generated and populated into the form base on the document sequence defined for the particular characteristics of the delivery.

8. Click Detail to view and edit the detail of the BOL.

Figure 4-27 Bill of Lading Window

The screenshot shows a window titled "Bill of Lading" with a close button (X) in the top right corner. The window is divided into two main sections: a top section for basic shipment details and a bottom section with two tabs, "Main" and "Signatures".

Top Section:

- Bill of Lading Number:
- Delivery:
- Ship Method:
- Freight Code:
- Pick-up Location:
- Drop-off Location:
- Trip:

Main Tab:

- Booking Number:
- AETC Number:
- Port of Loading:
- Port of Discharge:
- Carrier Export Ref:
- Shipper Export Ref:
- Service Contract:
- Notify Party:
- Bill freight To:
- Booking Office:
- Issuing Office:
- Issuing Person:
- Date Issued:

A "Done" button is located at the bottom right of the window.

9. On the Main tab, the following fields are available for entering information about the shipment:
- Booking Number
 - AETC Number
 - Port of Loading
 - Port of Discharge
 - Carrier Export Ref
 - Shipper Export Ref
 - Service Contract
 - Notify Party
 - Bill Freight To
 - Booking Office

- Issuing Office
 - Issuing Person
 - Date Issued
10. On the Signatures tab, the following fields are available for entering information about the shipment:
- Shipper Title
 - Shipper Signed By
 - Shipper Signed Date
 - Shipper Phone
 - Carrier Signed by
 - Carrier Signed Date
 - POD Signed by
 - POD Signed Date
 - HAZMAT: Shipper Signed By
 - HAZMAT: Shipper Signed Date
 - HAZMAT: Carrier Signed By
 - HAZMAT: Carrier Signed Date

See

Oracle Shipping Execution User's Guide, Reports, Documents, and Processes chapter.

Creating a Packing Slip

You can create a Packing Slip at any point in the shipping process providing a delivery has been created and a delivery line has been assigned to the delivery.

To create and print a Packing Slip:

1. Query your Delivery in the Shipping Transactions form.
2. Click Detail to invoke the delivery details window.

Figure 4–28 Delivery Details Window: Packing Slip Tab

Delivery - 8954

Delivery Additional Delivery Information Legs Packing Slip

Delivery Name 8954

Packing Slip Number

Reason Of Transport Customer Order

Description Misc. Equipment

Generate Pack Slip

Actions Close Go Done

3. Click the Packing Slip tab.
4. Optionally, enter a Description.
5. Click Generate Pack Slip.

See

Oracle Shipping Execution User's Guide, Reports, Documents, and Processes chapter.

Defining Shipping Document Sets

You can group related shipping documents and other reports in a set that can be printed at pick release or ship confirm. You can include a variety of shipping documents in a set such as a Bill of Lading and Packing Slip Report and determine the print sequence.

Shipping Execution provides three pre-defined (seeded) document sets:

- All Pick Release documents: You can set the default Pick Release Document Set in the Pick Release tab of the Shipping Parameters window
- Ship Confirm documents: You can set the default in the Document Set field of the ship confirm window
- Pack Slip only (at ship confirm): You can set the default in the Document Set field of the ship confirm window

Note: You can create additional document sets based on your business needs.

To define document sets:

1. Navigate to the Shipping Document Sets window.

Figure 4–29 Shipping Document Sets Window

Document Set: **All Pick Release Documents**

Description: **Pick Release**

Usage: **Pick Release**

Effective Dates

From: **12-AUG-1997**

To:

Printing Method

☒ Parallel

☐ Sequential

Documents

| Seq | Application | Report Name | Description | Copies |
|-----|-----------------|-------------------------|----------------------------|--------|
| 2 | Oracle Shipping | Shipping Exceptions Rep | Shipping Exceptions Report | 1 |
| 4 | Oracle Shipping | Pick Slip Report | Pick Slip Report | 3 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

2. Enter a Name and Description for the new document set.
3. Select the Usage for the document set:
 - Pick Release: For printing at pick release
 - Ship Confirm: For printing at ship confirm
4. Optionally, enter the Effective Dates for the document set.
5. The default Printing Method is parallel. This submits the reports for printing separately, each with a different request ID. If one of the reports in the document set fails to print, the other reports still print.
6. In the Seq (sequence) field, a number is automatically assigned whenever you begin to enter a new report to the list. This number indicates the order that the report was added to the document list. It has no other significance.
7. Select the Report Name to be included in the document set.

8. Enter the number of Copies that you want.

If number of copies for a document is specified in the document set form, then copy count is used. If it is not specified (i.e. it is null), then the profile option Concurrent: Report Copies is used. If the profile option Concurrent: Report Copies is also null, then 1 copy is printed.

9. Save your work.

To edit document sets:

1. Navigate to the Shipping Document Sets window.
2. Query an existing document set.
3. Edit the existing Effective Dates, Sequence of documents, or documents contained within the document set.
4. Save your work.

Choosing Printers for Shipping Documents and Labels

You can assign shipping documents and selected reports to specific printers for multiple levels. The levels are:

- User
- Responsibility
- Application
- Site
- Department
- Zone/Subinventory
- Equipment Type
- Organization

Note: Oracle Shipping will look for a printer at the User level first. If one exists, then it is selected, if one does not exist at the User level, then the system will look for a printer at the Responsibility level. This pattern will continue until a printer is found at one of the levels. If more than one printer is setup at a level, then you must use the Default check box to specify the preferred printer at that level. You should only have one default printer at each level.

If the document to be printed is a Pick Slip report, the system will look at the Subinventory level first. If a printer exists at the Subinventory level, then it will select that printer, but if a printer does not exist, then the system will look at the Organization level and then through the rest of the levels.

For example, you can assign pick slips and pack slips to your warehouse tractor feed printer, your mailing labels to a tractor feed printer stocked with blank labels, and other documents to a laser printer in your order entry office.

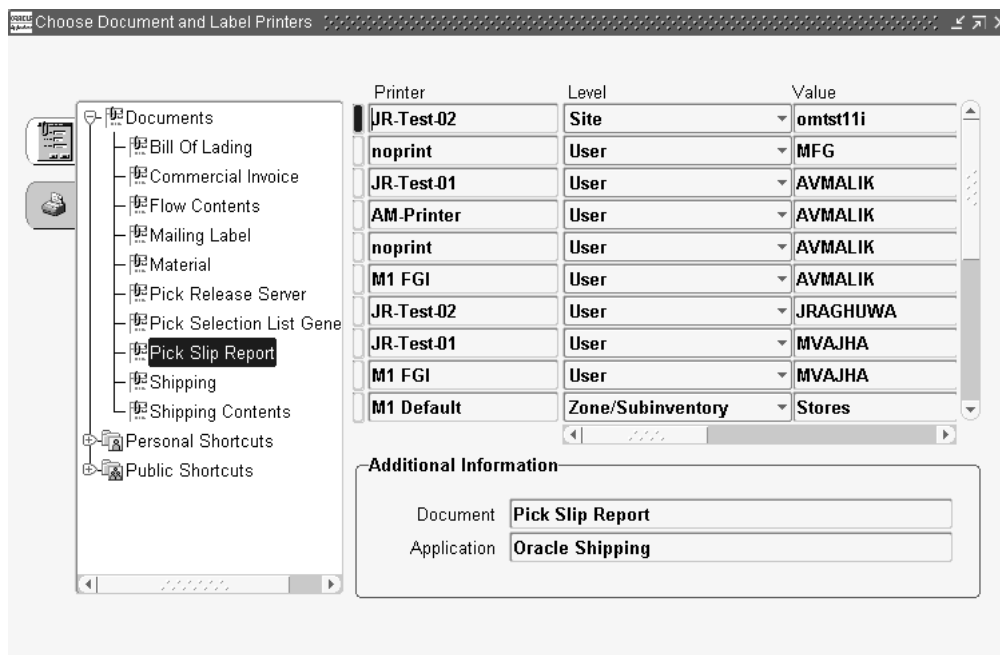
The window consists of a Document and a Printer tab: the Documents tab displays all the documents assigned to a printer, while the Printers tab displays all printers assigned to a document.

If a user or responsibility is not specified, Shipping Execution uses the printer assigned to the application.

To assign documents to a printer:

1. Navigate to the Choose Document and Label Printers window.

Figure 4–30 Choose Document and Label Printers Window



2. Choose the Documents icon to display documents currently assigned to printers.
3. Select the document from the Documents list.

If the document is not listed, select New from the File menu to display documents not yet assigned to a printer. Select the document and click OK. The document is added to the Documents list and you can start assigning printers to it.

4. In the Printer field, select the printer you want assigned to the document.
5. In the Level field, select the operational level for the printer. You can choose from the following:
 - User

- Responsibility
- Application
- Site
- Department
- Zone/Subinventory
- Equipment Type
- Organization

Note: You must assign the shipping document to at least one printer at the Application level.

Note: Use Equipment Type, Zone/Subinventory, and Department when Oracle Warehouse Management is installed.

Note: There is one document printing exception. Pick Slip can be printed at the Subinventory level.

6. Optionally, enter any comments.
7. Click Enabled to activate the printer assignment.
8. Enable the Default box if you want this printer as the default.

Only one printer can be used as the default. For example, if a document is printed in multiple printers by one user, only one printer should be assigned as the default.

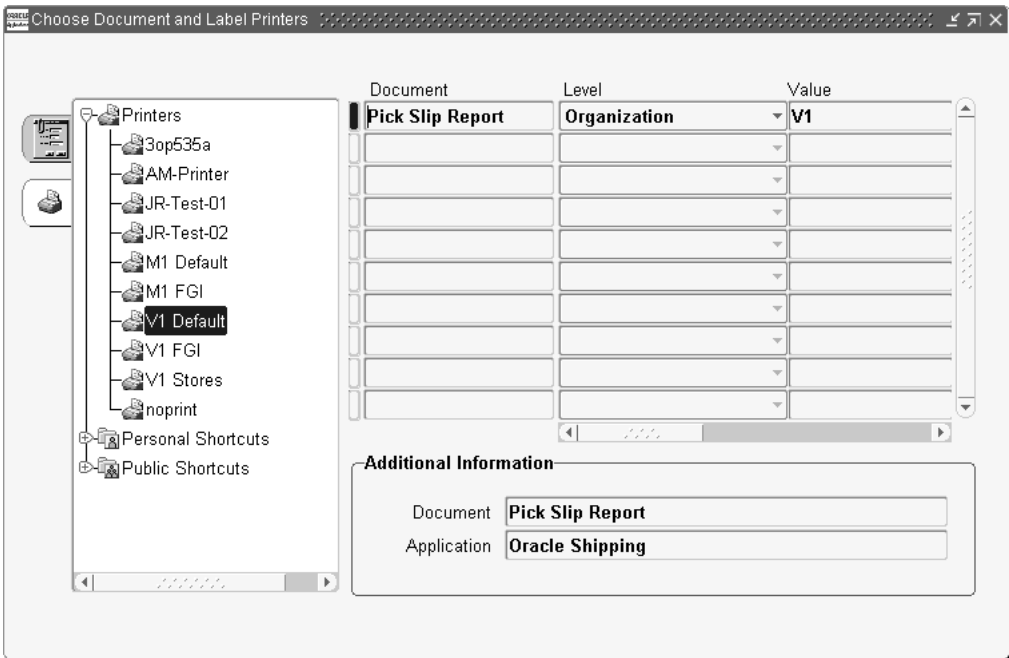
Note: The default printer check box is visible only in the Document tab.

9. Save your work.

To assign printers to documents:

1. Navigate to the Choose Document and Label Printers window.

Figure 4–31 Choose Document and Label Printers Window - Printers Tab



- 2. Choose the Printers icon to display printers currently assigned to documents.
- 3. Select the printer from the list.
If the printer is not listed, select New from the File menu to display new printers. Select the printer and click OK. The printer is added to the Printers list and you can start assigning documents to it.
- 4. In the Document field, select the document to be assigned to the printer.
- 5. In the Level field, select the operational level for the printer. You can choose from User, Responsibility, Application, and Site.

Note: You can use the following levels--Equipment Type, Zone, and Department--when the Oracle Warehouse Management system (WMS) is installed.

- 6. Optionally, enter any comments.

7. Enable the Enabled box to activate the document/printer assignment.
8. Save your work.

Defining Pick Slip Grouping Rules

You can create grouping rules to organize how picking lines for released sales orders are grouped on to pick slips. For example, if you select Delivery as a grouping criteria, all picking lines for the same delivery are grouped together on a pick slip. If there are multiple deliveries, multiple pick slips are created.

You can also define your grouping criteria further by selecting additional grouping attributes. For example, if you select Delivery and Carrier as grouping criteria, picking lines for the same delivery and carrier are grouped together on a pick slip.

For more information, refer to the *Oracle Inventory User's Guide*.

Defining Release Rules

You can create default pick release rules that are applied at pick release in the Release Sales Orders window. Each rule can be set up with its own set of unique pick release parameters depending on the pick release criteria required.

When pick release is run, the pick release is performed based on the parameters set up in the selected pick release rule. For example, to pick release only backordered lines, you can create a specific rule that pick releases only backordered lines.

Note: Although you can also enter the pick release criteria at pick release time without creating a rule, creating a rule is more efficient if you frequently do the same pick release.

To define release rules:

1. Navigate to the Release Rules window.

Figure 4–32 Release Rules Window - Order Tab

The screenshot shows the 'Release Rules' window with the 'Order' tab selected. The 'Rule' field is 'Example' and the 'Effective' date is '17-MAR-2003'. Under 'Release Criteria', the 'Order' tab is active. Fields include 'Orders' (Unreleased), 'Order Number' (778143), 'Customer' (AU Mazda), 'Order Type' (AU-STANDARD), 'Ship Set' (empty), 'Ship-To' (empty), and 'Item' (empty). There is a checkbox for 'Prior Reservations Only'. At the bottom, there are two sections: 'Scheduled Ship Dates' with 'From' and 'To' fields, and 'Requested Dates' with 'From' and 'To' fields.

2. Enter a Name for the rule and the Effective dates.

Within the Order tab, select one or more of the following criteria for your query. Select only the criteria that you want for the pick release:

3. Select the Orders and Order Types that you want included in the pick release:
 - Unreleased: The rule is applied to unreleased orders.
 - All: The rule applies to all orders.
 - Backordered: The rule applies only to backordered orders.
4. Enter the Order Number.
5. Select the Ship Set.
6. Select the Customer.
7. Select the Ship-To location.
8. Select the Item.
9. Enable the Prior Reservations Only box if you want to pick-release prior reservations only.
10. Select the range of Scheduled Ship Dates and Requested Dates.

Figure 4–33 Release Rules Window - Shipping Tab

Release Rules

Rule: Effective: - [☐]

Release Criteria

Order Shipping Inventory

Ship Method:

Ship From:

☐ Include Assigned Lines

Document Set:

Shipment Priority:

Release Sequence Rule:

Autocreate Deliveries:

Autopack Delivery:

Auto Ship Confirm Rule:

Within the Shipping tab, select one or more of the following criteria for your query. Select only the criteria that you want for the pick release:

11. Enter the Ship Method to pick release by a certain ship method.
12. Select the Shipment Priority, Ship From location, and Release Sequence Rule if required.
13. Enable the Include Assigned Lines box if you want to include assigned lines in the pick release.
14. Select Autocreate Deliveries if you want to automatically create deliveries for the order lines at pick release.
15. From the Autopack Deliveries list of values, select No if you do not want to utilize autopacking, select yes to enable autopacking, or select Auto Pack Master if you want to utilize autopacking with an additional pack into a freight container, for example.

You must setup container-item relationships to support the functionality for auto pack or auto pack master. For more information, refer to the *Oracle Inventory User's Guide*.

16. Select a Document Set.
17. Select an Auto Ship Confirm Rule, if you want to utilize auto ship confirming.

Figure 4–34 Release Rules Window - Inventory Tab

Release Rules

Rule: **Example** Effective: **17-MAR-2003**

Release Criteria

Order Shipping **Inventory**

Warehouse: **M1** Pick Slip Grouping Rule: **Departure, Delivery**

Project: Auto Allocate: **Yes**

Task: Auto Pick Confirm: **Yes**

Plan Tasks:

Pick From

Subinventory: Locator:

Default Stage

Subinventory: **Stores** Locator: **1.1.1..**

Within the Inventory tab, select one or more of the following criteria for your query. Select only the criteria that you want for the pick release:

18. Select the Warehouse and default Pick Slip Grouping Rule for grouping the pick slips.
19. If the warehouse field is left blank, pick release is performed across all warehouse organizations and could include multiple countries.
20. If Oracle Project Manufacturing is installed, you can utilize the Project and Task fields.
21. Select Auto Allocate if you want to automatically allocate the order lines at pick release.

If Auto Allocate is selected, order lines are automatically allocated and reserved. If not selected, you must allocate the lines and create reservations using the Inventory Transact Move Orders window.

22. Select Auto Pick Confirm if you want to automatically pick confirm the order lines at pick release.

Note: If Auto Allocate is not selected, you cannot auto pick confirm.

If both Auto Allocate and Auto Pick Confirm are selected, pick confirmation automatically follows the allocating and reservation process.

23. Enable Plan Tasks if Oracle Warehouse Management is enabled and you choose to utilize the Plan Tasks feature.
24. In the Pick From region, select the Subinventory and Locator of the default picking location.
25. In the Default Stage region, select the Subinventory and Locator of the default staging area.
26. Save your work.

Defining Release Sequence Rules

You can define release sequence rules to specify the order in which eligible picking lines are allocated to Inventory during pick release. You can release the picking lines by:

- Order number
- Outstanding Invoice Value
- Scheduled Date
- Departure Date
- Shipment Priority

You can assign a priority level to one or more attributes with 1 being the highest priority and 5 being the lowest. You can also define whether you want the picking lines released in ascending or descending order.

For example, if you select the Ascending button for Order, picking lines are released by ascending order number--Order 1 is released first, then Order 2, Order 3, and so on. If the Descending button is selected, the picking lines are released by descending Order number from highest to lowest--Order 4 is released first, then Order 3, Order 2, and Order 1.

Note: You can define either the Outstanding Invoice Value attribute or the Order attribute for the Release Sequence Rule, but you cannot select both for the same rule. No two attributes can be given the same priority.

You can edit existing release sequence rules, but you cannot change the name of an existing release sequence rule.

To define release sequence rules:

1. Navigate to the Release Sequence Rules window.

Figure 4–35 Release Sequence Rules Window

The screenshot shows the 'Release Sequence Rules' window. At the top, the 'Rule' field is set to 'All Standard Orders', the 'Description' is also 'All Standard Orders', and the 'Effective Dates' are '30-DEC-1997' to an empty date field. Below this is the 'Release Priority' section, which contains a table with five attributes: Order, Outstanding Invoice Value, Schedule Date, Departure Date, and Shipment Priority. Each attribute has a 'Priority' input field and two radio buttons for 'Ascending' and 'Descending' selection.

| | Priority | Ascending | Descending |
|---------------------------|----------|----------------------------------|-----------------------|
| Order | 3 | <input checked="" type="radio"/> | <input type="radio"/> |
| Outstanding Invoice Value | | <input type="radio"/> | <input type="radio"/> |
| Schedule Date | 1 | <input checked="" type="radio"/> | <input type="radio"/> |
| Departure Date | 4 | <input checked="" type="radio"/> | <input type="radio"/> |
| Shipment Priority | 2 | <input checked="" type="radio"/> | <input type="radio"/> |

2. In the Rule field, enter a name for your rule.
3. Enter a Description.
4. Enter the Effective Dates for the rule.
5. Within the Release Priority region, specify a Priority (1, 2, 3, 4, or 5 where 1 is the highest priority and 5 is the lowest) for one or all of the following attributes:
 - Order Number: Releases picking lines based on order number. If you define a priority for the Order Number attribute, you cannot define a priority for the Outstanding Invoice Value attribute.
 - Outstanding Invoice Value: Releases picking lines based on the outstanding invoice value. If you define a priority for the Outstanding Invoice Value attribute, you cannot define a priority for the Order Number attribute.
 - Scheduled Date: Releases picking lines based on scheduled date.
 - Departure Date: Releases picking lines based on departure date.
 - Shipment Priority: Releases picking lines based on shipment priority.
6. Select the Ascending or Descending toggle next to each attribute.

If you select the Ascending toggle next to the Scheduled Date attribute, for example, the picking lines with the earliest Scheduled Date are released first. If

you select the Descending toggle, the picking lines with the most recent Scheduled Date are released last.

7. Save your work.

Defining Transportation Calendars

You can use a transportation calendar to define valid shipping days and hours for a shipper, receiver, and carrier. Using these calendars is optional.

The shipping and receiving calendars are used to designate when your customers, customer sites, suppliers, supplier sites, and internal organizations can ship and receive.

Note: The ship confirm process uses these calendars to warn you of invalid shipping days and hours.

The calendars do not affect scheduling performed by Oracle Advanced Planning and Scheduling.

For example, if you are shipping a delivery on Tuesday to arrive at your customer's site on Wednesday, ship confirm checks the calendars to confirm the following:

- Your warehouse can ship on Tuesday
- Your customer can receive goods on Wednesday
- Your carrier is able to pick up and drop off the deliveries on those days

Note: If the transportation calendars are not defined, every day and time is assumed to be valid for shipping and receiving.

Prerequisites

A calendar must be created and defined in the Oracle Bills of Material (BOM) application as a Workday calendar before it can be assigned to a shipper, receiver, or carrier.

Note: The start and end dates for the calendar and the location's shipping and non-shipping patterns must be defined.

To define a transportation calendar:

1. Navigate to the Assign Calendars window.

Figure 4–36 Assign Calendars Window

Trading Partner

☒ Supplier Trading Partner Name

☐ Customer

☐ Organization

☐ Carrier Used For

Calendar Usage **Shipping**

Default Calendar Code

Site Calendars

| Site Name | Calendar Code | Enabled | [] |
|----------------------|----------------------|--------------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | <input type="text"/> |
| <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | <input type="text"/> |
| <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | <input type="text"/> |
| <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | <input type="text"/> |
| <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | <input type="text"/> |

Show Candidates

2. Choose the role of the Trading Partner: Supplier, Customer, Organization, or Carrier. For example, if the trading partner is a customer, choose the Customer button.

If you selected Carrier as the trading partner, you must select whether the carrier is used for pick up/delivery to a supplier, customer, or organization and then select the name of the supplier, customer, or organization in the Used For fields.

3. Select the Trading Partner Name to whom you are assigning the calendar.
4. Select the Calendar Usage.

The calendar usage depends on the trading partner you selected. For example, if the trading partner is receiving your goods, create a Receiving Calendar.

5. Select the Default Calendar Code.

You can override the default calendar code by selecting a new calendar code for each site as described below.

6. Click Show Candidates to display the sites for the selected trading partner.

7. If you want to override the Default Calendar Code, select the new calendar code in the Calendar code field.
8. Select the Enabled box to activate the calendar for that site.
9. Save your work.

Defining Shipping Exceptions

During the shipping and transportation of goods, unforeseen shipping exceptions can occur that conflict with the actual requirements of the shipper, transportation carrier, or customer.

If these exceptions are not handled promptly or properly, it could result in reduced customer satisfaction and loss of business and revenue for a company. Tracking exceptions can also be helpful to identify and correct defects in the business process.

The seeded exceptions are logged automatically against delivery lines, LPNs, deliveries, and trip stops when specific change management events occur. The change management events are shown in the descriptions below:

Table 4–3 Seeded Exceptions

| Exception Name | Description |
|-------------------------|--|
| WSH_BATCH_MESSAGE | Logged to store the messages generated during the automated shipping processes such as auto-pack and ship-confirm. |
| WSH_CHANGED_QUANTITY | Logged when quantity is changed and line is staged OR packed OR a planned delivery. Reasons can be: WSH_CANCELED_PACKED WSH_CANCELED_PLANNED WSH_CANCELED_RELEASED Exception can be logged against delivery or container or line itself. |
| WSH_CHANGED_SHIP_METHOD | Logged against trip when changing ship method of trip causes delivery legs' BOL numbers to become deleted. |
| WSH_CHANGE_DEL_GROUP | Logged against delivery or LPN when a delivery grouping attribute (mandatory or enforced) is changed that causes the delivery line to become unpacked from its LPN or unassigned from delivery or both. |
| WSH_CHANGE_SCHEDULE | Logged against delivery or LPN when the organization is changed or when order line is unscheduled and the delivery line is released to warehouse or staged and is assigned to delivery or LPN or both. |

Table 4–3 Seeded Exceptions

| Exception Name | Description |
|-------------------------------|---|
| WSH_CHANGE_SCHED_DATE | Logged against delivery line when order line's scheduled date is moved into future. Rationale: we do not want to ship the line early. |
| WSH_CUSTOMER_MERGE_CHANGE | Logged against delivery when a customer merge occurs that affects delivery details within the delivery for one of the merge customers. The exception could be caused by a change in Ship To address. |
| WSH_INVALID_DELIVERY_PLANNING | Logged if WSH cancels/deletes delivery line that is in a planned delivery (This could happen because order line is canceled, or its quantity is reduced). |
| WSH_INVALID_PACKING | Logged against LPN when a delivery grouping attribute (mandatory or enforced) is changed that causes the delivery line to become unpacked from its LPN. |
| WSH_INV_EXPECTED_ERROR | Logged from Pick Release when Inventory returns error. |
| WSH_PICK_BACKORDER | <p>Logged against batch during Pick Confirm for any of these cases:</p> <p>Other lines in Ship Set/SMC being backordered due to one line being backordered.</p> <p>Other lines in Ship Set/SMC being backordered due to insufficient quantities for one line.</p> <p>Normal line being backordered.</p> |
| WSH_PICK_HOLD | Logged during Pick Release when holds are found. |
| WSH_PICK_PRIOR_RSV | Logged against the delivery lines if Prior Reservations is specified during Pick Release but quantity is not reserved or Ship Set or Ship Model Complete line is partially reserved. |

You can also define other exceptions and processes for exception handling in the Define Shipping Exceptions window.

To define shipping exceptions:

1. Navigate to the Define Shipping Exceptions window.

Figure 4–37 Define Shipping Exceptions Window

Define Shipping Exceptions

Exception Name: WSH_CHANGED_QUANTITY

Description: Change in shipping requested quantity due to change in order

Exception Type: Delivery Exception

Default Severity: High

Exception Handling: ☒ Manual ☐ Workflow ☐ No Action Required

Workflow Item Type:

Workflow Process:

☐ Initiate Workflow

2. Enter a unique Exception Name to identify the exception.
3. Enter a Description.
4. Select the Exception Type that you want to create: Delivery, Picking, or Trip exception.
5. Select one of the following Default Severity settings:
 - High: The exception must be handled before the task can be completed.
 - Medium: The exception must be handled before the task can be completed. However, the manager can override it so that the task can be completed.
 - Low: A warning is given but the task can be completed.
6. Choose one of the following Exception Handling methods:
 - Manual: The exception must be manually corrected and the exception status must be closed.
 - Workflow: A workflow is used for exception notification and exception handling.
 - No Action Required: No exception handling method is required.
7. If you select workflow as the exception handling method, enter the Workflow Item Type and enable the Initiate Workflow box.
8. Save your work.

Defining Containers and Vehicles

You define containers and vehicles in Oracle Inventory, as inventory items. For each container and vehicle, attend to the following:

- In the Inventory tabbed region, select Transactable.
- Within the Physical Attributes tab, Container region, complete the following:
 - Select either Container or Vehicle
 - Enter Container Type
 - Enter the container's Internal Volume
 - Enter the container's Maximum Load Weight
 - Enter the container's Minimum Fill Percent
- Within the Physical Attributes tab, Weight region and Volume region, enter the Unit of Measure and Unit Weight of the empty container.

Defining Container-Item Relationships

When setting up container-item relationships, you define the maximum quantity of load items (delivery lines) that can be packed into a container: for example, defining that a maximum of 12 items can be packed into a small box. These relationships are used to:

- Calculate/estimate the number of containers required for delivery lines in a delivery or trip. This enables you to use the auto-pack function to auto-pack delivery line items into new containers. The number of containers required to pack the delivery lines is automatically calculated based on the container-item relationships.
- Calculate the fill percentage for containers when the Fill Percentage Shipping parameter is set to Quantity. See: [Defining Shipping Transaction Parameters](#) on page 4-38.

In addition to packing delivery lines in containers, Oracle Shipping Execution features an *Auto-pack Master* function that enables you to auto-pack delivery line items into containers, and then auto-pack these containers into master containers such as pallets or railway boxcars.

The innermost container is considered the detail container item, and the pallet or boxcar is the master (outermost) container. If you want to use the auto-pack master feature, you must set up a relationship that relates the container (the load item) to a master container such as a pallet (the container item).

In the following example, auto-pack master would create one box for up to 5 engines and pack up to 4 boxes onto a pallet.

Table 4–4 Auto-Pack Master Example

| Load Item | Container Item | Max Load Qty | Preferred |
|-----------|----------------|--------------|-----------|
| Engine | Box | 5 | Y |
| Container | Pallet | 4 | Y |

For more information, see Auto-packing delivery Lines into Containers, *Oracle Shipping Execution User’s Guide*.

To define container-item relationships:

1. Navigate to the Container-Item Relationships window.
2. Select the Container Item from the List of Values.

3. The Container Item and Container Type display in the window.
4. Select the load item that you want to place in the Container Item.
5. Define the maximum quantity of items that can be placed in the Container Item.
6. If the container-item relationship is a common shipping configuration in that inventory organization, select Preferred Flag.
7. Save your work.

Finding Container-Item Relationships

You can search existing container-item relationships to find:

- Load items associated with a container (LPN) or container type
- Containers (LPNs) associated with a particular load item

For example, a shipper may search for container-item relationships to find what load items packed in a certain type of container, or the type of container used to pack a particular load item.

If one or more relationships for the selected item, container, or container type are found, the relationship(s) display in the Container-Item Relationships window.

The Preferred Flag box in the Container-Item Relationships window indicates the preferred relationship that is used when auto-packing LPNs. For more information, see Auto-packing delivery Lines into Containers, *Oracle Shipping Execution User's Guide*.

To find container-item relationships:

1. Navigate to the Container-Item Relationships window.
2. Choose the Find icon to display the Find Customer-Item Relationships window.
3. Enter only the criteria required for your search:
 - Container Item: Enter the name of the container item to find container-load relationships for that container
 - Load Item: Enter the name of the load item to find container-load relationships for that load item
 - Container Type: Enter the name of the container type to find all relationships for that container type and the related load items
4. Click Find to display the relationships in the Container-Item Relationships window.
5. Optionally, click New to create a new container-load relationship.

International Trade Management Adapter

Use the International Trade Management (ITM) application if you conduct business across international borders and need to ensure that your cross-border trade complies with the export and import rules, regulations, and duties of all countries involved in the transaction (trade compliance).

To provide export compliance and resolve regulatory screening issues, Oracle Applications enables you to use International Trade Management partners that are skilled in the laws of import/export and in acquiring and maintaining this information. With the ITM integration, there is global trade functionality in the standard business transactions. For example, if a partner application detects a customer who is a denied party, Oracle Order Management application places their sales order on hold.

Oracle Order Management provides a workflow subprocess called Export Compliance Screening - Line that you can insert into your workflows to execute the ITM functions. This workflow subprocess is part of the seeded Line Flow - Generic, With Export Compliance workflow process.

Services

Denied Party Screening: Compares transaction party names and addresses to parties that are denied import/export privileges, for example, known terrorists and those guilty of trade violations.

Processing

Oracle's generic adapter provides a common infrastructure between any Oracle Application and the International Trade Management partner applications.

To use the adapter, populate the adapter interface tables through an API which submits a service request to the adapter. The adapter generates XML transactions for submission to a partner at the appropriate time in your business process.

The adapter can also use your custom processing logic after it performs its usual transaction processing. You can group requests by assigning them to the same request set; the Adapter performs your custom process after it processes all transactions in each request set.

The partner:

- Validates the XML transactions
- Performs the services

- For each transaction, sends a success/fail status and a response to each XML transaction to Oracle Applications.

The adapter receives the statuses and responses and places them in the response interface tables.

The response processor API interprets the messages and takes actions depending on your response rules. It sets the request status based on the highest level message that it finds. The hierarchy of message levels, from highest to lowest, is SYSTEM, DATA, ON_HOLD, and SUCCESS. The error type is always ITM Adapter.

After analyzing the error responses in a report, you can:

- Run a concurrent process (Skip Screening) to skip adapter screening for certain requests and maintain the workflow activity. Then, you correct the errors and submit the request again.
- Run a concurrent process (Resubmit Errored Requests) to resubmit requests to the ITM Adapter.

Setup Process

Prior to performing international trade management setup, decide:

- Whether you will need lookup codes in addition to those seeded
- Which ITM partner you use for which services
- Which current Oracle Applications users will process international trade management information
- The master organizations in which they will work
- Whether to restrict any users to only one organization
- How Oracle Applications should respond to error conditions from the partners

To set up for international trade management functions, you must:

- Define international trade management partners
- Define international trade management users
- Specify your preferred partners for the ITM services
- Specify adapter parameters
- Specify the actions to take with the partner responses

International Trade Management Partners

Use this form to master information about international trade management partners. You enter three types of information about a partner:

- Master information
- Services offered and parameter information about the services
- Parameters about the partner

To set up international trade management partners:

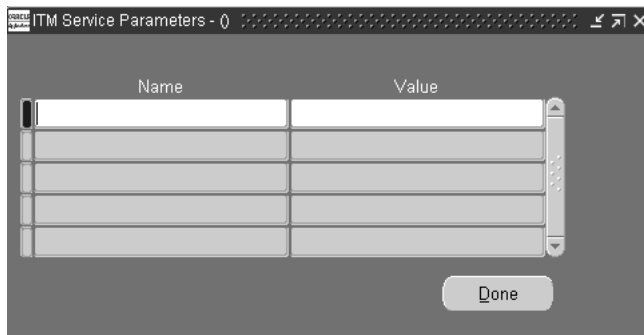
1. Navigate to the ITM Partners window.

Figure 4–38 *ITM Partners Window*

The screenshot shows the 'ITM Partners' window. At the top, there are four text input fields labeled 'ITM Partner', 'Website', 'Contact Person', and 'Email'. Below these is a checkbox labeled 'Supports Combination'. The main area is divided into two tabs: 'Services' and 'Partner Parameters'. The 'Partner Parameters' tab is active, showing a table with columns: 'Service Type', 'URL', 'Port', 'Protocol', 'Name', 'Certificate Store', 'Password', and 'Additional Country'. The 'Certificate' column has a sub-header 'Store'. There are four rows in the table, each with empty input fields. To the right of the table is a vertical scrollbar. At the bottom right of the table area is a button labeled 'Service Parameters'.

2. Enter your ITM Partner.
3. In the Website field, enter the uniform resource locator of the partner's web site.
4. Enter the name of your Contact Person.
5. Enter the Email address of your contact person.

6. Select Supports Combination if the partner can provide more than one service for each of your requests. If you select this, it indicates that the partner can provide one service for one of your requests, all of its services for one of your requests, and any combination of its services for one of your requests.
7. Save your work.
8. Within the Services tab, select a service that the partner provides in the Service Type column.
9. In URL, enter the uniform resource locator (web site address) of the site to which you post the request.
10. In Port, enter the web server listener port number of the uniform resource locator to which you post the request.
11. Select the Protocol.
12. If the protocol is HTTPS:
 - In Certificate Name, enter the certificate name.
 - In Certificate Store, enter the certificate storage location.
 - In Certificate Password, enter the certificate password.
13. If you want the service to additionally screen against the parent country, select Additional Country. International Trade Management also screens the secondary country listed in the Shipping Parameters form.
14. Save your work
15. For each service, click Service Parameters.

Figure 4–39 ITM Service Parameters Window

The screenshot shows a window titled "ITM Service Parameters - 0". Inside the window is a table with two columns: "Name" and "Value". The table has four rows, with the first row being white and the others gray. A vertical scrollbar is on the right side of the table. At the bottom right of the window is a "Done" button.

| Name | Value |
|------|-------|
| | |
| | |
| | |
| | |

Done

16. Enter the Name of the service parameters.

17. Enter the value for each service parameter.

Each International Trade Management partner specifies the additional service parameters that they need in the requests that you submit to them.

18. Click Done and navigate to the Partner Parameters tabbed region.

Figure 4–40 ITM Partners Window

The screenshot shows a window titled "ITM Partners". It contains several input fields: "ITM Partner", "Website", "Contact Person", and "Email". Below these is a checkbox labeled "Supports Combination". There are two tabs: "Services" and "Partner Parameters", with "Partner Parameters" being the active tab. Below the tabs is a table with two columns: "Name" and "Value". The table has four rows, with the first row containing a vertical scrollbar on the left and a vertical scrollbar on the right.

| Name | Value |
|------|-------|
| | |
| | |
| | |
| | |

19. Enter the Name of the partner parameters.

20. Enter the Value for each partner parameter.

Each International Trade Management partner specifies the additional partner parameters that they need in the requests that you submit to them.

21. Save your work.

International Trade Management Users

Use this window to set up the login information for the partners. You can set up a user for an Application User ID, for a master organization, for an individual organization. A more specific setup overrides a more general setup. For example, a request from an organization with a specific setup uses that specific setup while a request from an organization without a specific setup uses the setup of the master organization to which it belongs.

To set up international trade management users:

1. Navigate to the ITM Application Users window.

Figure 4-41 ITM Application Users Window

The screenshot shows a window titled "ITM Application Users". It contains the following fields:

- ITM Partner: A text field with a dropdown arrow on the right.
- Application: A text field.
- Master Organization: A text field.
- Organization: A text field.
- Application User: A text field.
- ITM User Name: A text field.
- Password: A text field.

2. Select the ITM Partner.
3. Select the Application which sends requests to this partner (the calling application), for example, Oracle Order Management.
4. Enter the Master Organization whose organizations send requests to this partner. For Oracle Exchange, enter Operator ID.
5. Enter an Organization that sends requests to this partner. For Oracle Exchange, enter Party ID.
6. In Application User, enter an existing Oracle Applications user name that sends requests to this partner.
7. In ITM User Name, enter the user name that the partner provides for your access to the partner system. The user name can be up to 35 characters and numbers.
8. In Password, enter, twice, the password that the partner provides for your access to the partner system. The password should be at least five characters.
9. Save your work.

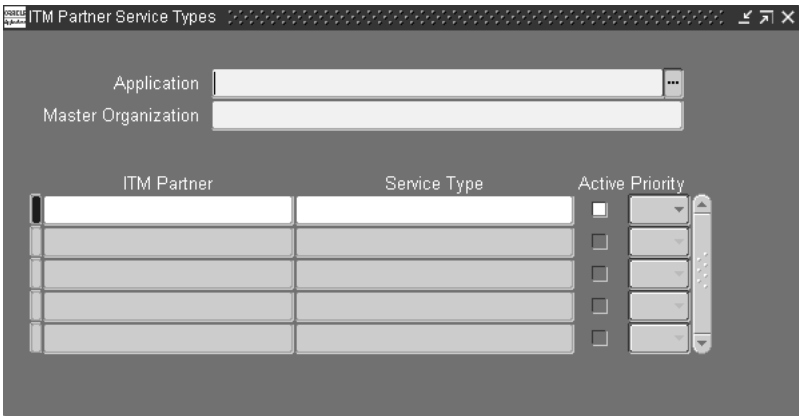
International Trade Management Partner Service Types

Use this window to specify your preference of partners who provide international trade management services to you.

To set up international trade management partner service types:

- 1. Navigate to the ITM Partner Service Types window.

Figure 4–42 ITM Partner Service Types Window



- 2. Select an Application from which you make service requests.
- 3. Select a Master Organization from which from which you make service requests. For Oracle Exchange, enter Operator ID.
- 4. In ITM Partner, select a partner who provides a service.
- 5. In Service Type, select a service that the partner provides.
Enter one line of information for each service and partner that you may use. If you may use more than one partner for a service, enter each partner-service combination on a separate line.
- 6. Select Active to indicate that you can submit this type of service request to this partner.

Note: Clear Active to indicate that you do not want to submit this type of service request to this partner. You can have only one Active partner for each service at one time.

7. In Priority, select the indicate the processing priority of this service type with this partner in relation to other partners and services. Select a number from one (highest priority) through five.

For example, you specify that ITM partner A's denied party transactions are priority 1 in the Operations organization and priority 2 in the Geneva Manufacturing organization. The ITM Adapter processes ITM partner A's denied party transactions from the Operations organization before those from the Geneva Manufacturing organization.

International Trade Management Adapter Parameters

Use this window to set up adapter parameters. After you set up or change parameters, stop and start the Adapter (ShutDown ITM Adapter concurrent process and StartUp ITM Adapter concurrent process).

To set up international trade management adapter parameters:

1. Navigate to the ITM Parameter Setup window.

Figure 4–43 ITM Parameter Setup Window

| Name | System Defined | Override Allowed | User Defined |
|--------------------|----------------|-------------------------------------|--------------|
| ITM Root Directory | | <input checked="" type="checkbox"/> | |
| Output Directory | output | <input checked="" type="checkbox"/> | output |
| Save XML Response | OFF | <input checked="" type="checkbox"/> | OFF |
| Save XML Request | OFF | <input checked="" type="checkbox"/> | OFF |
| Log File Directory | log | <input checked="" type="checkbox"/> | log |
| Log Severity | 3 | <input checked="" type="checkbox"/> | 3 |
| Set Proxy | TRUE | <input checked="" type="checkbox"/> | TRUE |
| Proxy Host | | <input checked="" type="checkbox"/> | |
| Proxy Port | | <input checked="" type="checkbox"/> | |
| Polling Frequency | 5000 | <input checked="" type="checkbox"/> | 5000 |

Description: The Root Directory for all the ITM related files.

2. The valid values are seeded, you cannot create new parameters. You can change the parameters whose Override Allowed checkbox is selected.
3. Highlight the parameter that you want to change.
4. In Description, read instructions for the parameter.
5. In User Defined, enter your changed information.
6. Save your work.

Adapter Parameter Details

ITM Root Directory: The root directory for all the ITM Adapter related files, for example: d:\ITM.

Output Directory (Default = output): The directory under the ITM Application Root Directory where all the request and response XML files are stored. For example, if the parameter value is output, then all the request and response XML Files will be stored in the d:\ITM\output directory. If this directory structure does not exist then the Adapter Startup Concurrent Program errors out.

Save XML Response (Default = OFF): This option enables all the response XML Files sent by ITM partner to be stored in the Output Directory. The response XML

files follow the naming convention `Gen_Res_<Vendor_name>_<request_control_id>_<response_header_id>.xml` (`Vendor_name` indicates the sender of this response document), except for Clearcross files which follow the naming convention `CC_Res_<Vendor_name>_<request_control_id>_<response_header_id>.xml`.

Save XML Request (Default = OFF): This option enables all the request XML Files generated by the ITM Adapter to be stored in the Output Directory. The request XML files follow the naming convention `Gen_Req_<request_control_id>.xml` except for Clearcross files which follow the naming convention `CC_Req_<request_control_id>.xml`.

Log File Directory (Default = log): The directory under the ITM Application Root Directory where all the log files generated by ITM Adapter are stored. For example, if the parameter value is `log`, then all the log files will be stored in the `d:\ITM\log` directory. If this directory structure does not exist then the Adapter Startup concurrent program errors out.

Log Severity (Default = 3): The log severity values are:

- 1: Debug. If the log severity is 1, the log files generated by ITM Adapter print all types of messages; recommended for heavy debugging.
- 2: Information
- 3: Warning
- 4: Error. If the log severity is 4, the log files generated by ITM Adapter print only the error messages.

Set Proxy (Default = True): Set this value to `True` if proxy settings are required.

Proxy Host: If the parameter `Set Proxy` is `True` then `Proxy Host` should be not null.

Proxy Port: If the parameter `Set Proxy` is `True` then `Proxy Port` should be not null.

Polling Frequency (Default = 3000): This is the time interval for polling the interface table in milliseconds. For example, if this value is 500 milliseconds, the interface tables are checked for new requests after every 500 milliseconds. Based on the frequency of requests submitted, this parameter has to be set so that the Adapter immediately picks up by the requests.

Task Size (Default = 2): The number of requests which will be grouped and sent as one request to the ITM partner Application. Task Size of 2 is recommended for better performance.

Maximum DB Connection (Default = 7): Based on the load, the ITM Adapter can increase the number of connections in the Connection Pool to this value. This parameter should be ideally set to (`Maximum threads`) +1.

Minimum DB Connections (Default = 4): The minimum number of database connections which the ITM Adapter could get during startup. The minimum number of connections should be at least (Minimum threads) + 1. Ideally this parameter can be set to say (Minimum threads) + 2.

DB Connection Timeout (Default = 5): Maximum wait time while getting a database connection (in milliseconds).

DB Connection Idle Time (Default = 300): Maximum time for which a database connection can be idle. If the number of connections in the connection pool is greater than Minimum DB Connection, a connection will be dropped if the idle time exceeds this parameter. The idle timeout should be large enough so that connections are not too frequently dropped. But it should not be so large as to hold on to costly connection resources. This parameter can be set to 5 minutes so that we are not holding the resource for a longer time.

Maximum Threads (Default = 5): The maximum number of threads ITM Adapter can create.

Minimum Threads (Default = 2): The number of worker threads that the ITM Adapter creates initially. For example, if there are 500 requests submitted each hour, you can have a minimum of three threads running so that no extra time is spent in creating new threads when a request is submitted.

Maximum Resubmits on Error (Default = 2): If a request errors out with Error Code 100, 101, 106, 108, 109, or 110, the Adapter tries to resubmit these requests. This parameter limits the number of times these requests can be resubmitted. We recommend an initial value of 2.

Thread Maximum Idle Time (Default = 100000): The maximum time a thread can be idle. After this interval that thread is ended.

Queue Polling Interval (Default = 7000)

XSL Transform URL (Default = <http://www.w3.org/1999/XSL/Transform>): W3C XSL transform URL.

Request Stylesheet: The stylesheet used for producing the request root of the XML request document.

Weight of Priority 1 Queue (Default = 33): Weight attached to the Priority 1 queue.

Weight of Priority 2 Queue (Default = 27): Weight attached to the Priority 2 queue.

Weight of Priority 3 Queue (Default = 20): Weight attached to the Priority 3 queue.

Weight of Priority 4 Queue (Default = 13): Weight attached to the Priority 4 queue.

Weight of Priority 5 Queue (Default = 7): Weight attached to the Priority 5 queue.

International Trade Management Response Rules

Use this form to set up partner response rules that the adapter and the Response Processor API uses to translate error types and error codes from the partner engines to your interpreted values.

To set up international trade management response rules:

1. Navigate to the ITM Response Errors Classification form.

Figure 4–44 ITM Error Classification Window

The screenshot shows a window titled "ITM Error Classification". Inside the window is a table with four columns: "ITM Partner", "Error Type", "Error Code", and "Interpreted Value". The "ITM Partner" column has a dropdown arrow. The table has several empty rows for data entry. A vertical scrollbar is visible on the right side of the table.

| ITM Partner | Error Type | Error Code | Interpreted Value |
|-------------|------------|------------|-------------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

2. In ITM Partner, enter a partner.
3. In Error Type and Error Code, enter an error type and code.
4. In Interpreted Value, select the interpreted value for the combination of the error code and error type:
 - SYSTEM: System error
 - DATA: Data error
 - SUCCESS: No error condition
 - You cannot set the value OVERRIDE
5. Save your work.

Regions and Zones

Overview of Regions and Zones

If you have the Oracle Advanced Planning and Scheduling Suite installed, use regions and zones to group by geographical areas and save the effort of setting up point-to-point transit times.

You can perform the following:

- Group geographical areas into regions and set transit times from your warehouses to the regions. For example:
 - Create a region for San Francisco Bay U.S.A. and specify that it consists of the cities San Francisco, Oakland, and Berkeley
 - Set up a transit time of two days from your New York U.S.A. warehouse to the San Francisco Bay U.S.A. region
- Group regions into zones and set transit times from your warehouses to the zones to encompass a larger geographic area.

The Oracle Advanced Planning and Scheduling Suite uses this origin-destination information to plan and schedule shipment departure dates, arrival dates, and sourcing.

Region and zone terms are:

- **Region:** A geographical area, for example, a group of cities, states, provinces, or a country. Region information is hierarchical (postal codes belong to cities which belong to provinces which belong to countries), standard (defined by political and geographical boards), and is usually available through third-party vendors and standards agencies.

You can model regions at different levels of scale. A region can consist of countries, provinces/states, cities, or postal codes.

- **Sub-region:** A child of a region. For example, the sub-regions of the region Canada can be its provinces; the sub region of the region London can be its postal codes.
- **Zone:** A collection of regions, for example, a western zone. Zone information is unique to your business.
- **Regional transit times:** In-transit times specified between ship-from locations and locations, zones, and regions based on shipping methods. You can specify cost and load to track specifics of each shipping method.

When the Oracle Advanced Planning and Scheduling Suite plans shipments, it assumes that the transit time from your facility to all locations within the zone is the same. For example:

- You ship from Tokyo, Japan to customers in Manila, Philippines and Taipei, Taiwan
- You place Manila and Taipei in zone A
- You specify the regional transit time between your Tokyo facility and zone A as two days
- Oracle Applications plans shipments from Tokyo to Manila for two days and shipments from Tokyo to Taipei for two days also

The advantages of planning shipments in terms of regions and zones are:

- You enter and maintain in-transit and sourcing rules information between zones rather than between every ship-from/ship-to address combination
- With less in-transit information, Oracle Shipping Execution finds the information that you need faster
- The in-transit information automatically applies to new customers
- For shipping quotes, you can match your inter-zone shipment requirements to service provider shipping lanes

Setting Up

If you ship to multiple locations that are near to each other and you want to plan shipments by regions and zones:

- Determine the regions and sub-regions that support your the Oracle Advanced Planning and Scheduling Suite shipment planning, create them, and map address locations to them
- Determine the zones that support your the Oracle Advanced Planning and Scheduling Suite shipment planning, create them, and assign regions to them
- Specify the in-transit times between zones (regional transit time) and preferred ship method between zones

Use two concurrent processes to map and load bulk geographical information. Use the forms for individual data entry and data correction.

Order Processing

When calculating available-to-promise, the Oracle Advanced Planning and Scheduling Suite uses regional transit times.

When scheduling shipments using zones and regions, the Oracle Advanced Planning and Scheduling Suite:

- Consults the sales order line ship-from location, ship-to country, ship-to postal code, ship method, and customer request date.
- Determines the ship-from and ship-to zones.
- Determines the regional transit time between the zones. If you specify a shipping method, it determines that transit time. If you do not specify a shipping method in the sales order line, it determines the transit time of the default shipping method.
- Calculates the scheduled ship date from the available to promise date and the regional transit time.

If you have specified an in-transit time and shipping method for the specific ship-to location, the Oracle Advanced Planning and Scheduling Suite uses that information instead of the regional information.

Setting Up Region and Zone Information

Use the following procedures to set up region and zone information through forms and through concurrent processes.

To add regions:

1. Navigate to the Regions and Zones window, Regions tabbed region.

Figure 4–45 Regions and Zones Window

| Country | Country Code | State/Province | State/Province Code | City | City Code | Postal Code From | Postal Code To |
|----------------|--------------|-----------------|---------------------|------|-----------|------------------|----------------|
| United Kingdom | GB | West Midlands | | | | | |
| United Kingdom | GB | Wiltshire | | | | | |
| United Kingdom | GB | Yorkshire North | | | | | |
| United Kingdom | GB | Yorkshire South | | | | | |
| United Kingdom | GB | Yorkshire West | | | | | |
| United States | US | AL | AL | | | | |
| United States | US | AR | AR | | | | |
| United States | US | Arizona | AZ | | | | |
| United States | US | CALIF | | | | | |
| United States | US | CT | CT | | | | |

2. Enter the following information as available.
3. When you enter a region, you can specify only one new component.

For example, if you enter country China, province/state Guangdong, and city Guangzhou, you must already have entered the region country China, province/state Guangdong. Use the list of values if you are unsure about existing information for each field.

Note: After you query previously created regions, you can use the Locations button to view all locations for a selected region. With the cursor on the selected region, click the Locations button to display locations for that region.

4. Save your work.

To update regions:

1. Navigate to the Regions and Zones window, Regions tabbed region.
2. From the menu bar, select Query > Enter.

- 3. Enter search criteria.
- 4. From the menu bar, select Query > Run and view regions that match your search criteria.
- 5. Select one of the regions that displays and update the information.
- 6. Save your work. If you have changed a parent region, the region becomes assigned to a new parent.

To add and update sub-regions:

- 1. Navigate to the Regions and Zones window, Regions tabbed region.
- 2. From the menu bar, select Query > Enter.
- 3. Enter search criteria.
- 4. From the menu bar, select Query > Run and view regions that match your search criteria.
- 5. Select one of the regions that displays and click Sub-regions.

Figure 4–46 Sub-Regions Window

The screenshot shows a window titled "Sub-Regions" with a search bar at the top containing "United Kingdom, West Midlands". Below the search bar is a table with columns: State, State/Province Code, City, City Code, and Postal Code (From, To). The table lists several sub-regions, all with "West Midlands" in the State column and various cities in the City column. The first row is highlighted.

| State | State/Province Code | City | City Code | Postal Code From | Postal Code To |
|---------------|---------------------|---------------|-----------|------------------|----------------|
| West Midlands | | Birmingham | | | |
| West Midlands | | Coventry | | | |
| West Midlands | | Dudley | | | |
| West Midlands | | Walsall | | | |
| West Midlands | | Wolverhampton | | | |
| West Midlands | | Worcester | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

- 6. View existing sub-region information and add or change information
- When you enter a sub-region, you can enter only one component and the region must exist. For example, you cannot change the region country United States

and province/state California and the sub-region city San Diego in one entry.
Instead:

- Enter region country United States, province/state California
- Query region country United States, province/state California and enter sub-region city San Diego

To add zones:

1. Navigate to the Regions and Zones form, Zones tabbed region.

Figure 4–47 Regions and Zones Window - Zones Tab

The screenshot shows the 'Regions and Zones' window with the 'Zones' tab selected. The 'Zone' field contains 'East USA' and the 'Zone Level' is set to 'Country'. Below, the 'Zone Components' section contains a table with the following data:

| Country | Country Code | State/Province | State/Province Code | City | City Code | Postal Code From | Postal Code To |
|---------------|--------------|----------------|---------------------|------|-----------|------------------|----------------|
| United States | US | New Jersey | NJ | | | | |
| United States | US | New York | NY | | | | |
| United States | US | Ohio | OH | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

2. Enter a Zone name.
3. In the Zone Components region, enter information about the regions that you are assigning to the zone. You cannot assign a region and its parent regions to the same zone.
4. Save your work.
5. Select the Locations tab.

The Regions and Zones - Locations Tab window is a view only window used to find previously entered information for locations and the locations, regions, and zones that they are mapped to.

To query existing information, in the Locations area, use the View pull down menu and select Query by Example, and Enter. Input your query criteria and select the View pull down menu and Query by Example and Run.

You can also query for a particular location, region, and zone. Place the cursor in the lower area of the window, select the View pull down menu and Query by Example and Enter. Input your query criteria, such as, a city and select the View pull down menu and Query by Example and Run.

To update zones:

1. Navigate to the Regions and Zones window, Zones tabbed region.
2. From the menu bar, select Query > Enter
3. Enter search criteria.
4. From the menu bar, select Query > Run and view zones that match your search criteria.
5. Update the zone name and components information.
6. Save your work.

To search for regions and zones:

1. Navigate to the Regions and Zones window, and select a tabbed region.
2. From the menu bar, select Query > Enter.
3. Enter values or partial values for the elements that you want to search.
4. From the menu bar, select Query > Execute.
5. View information about the regions or zones that match the search criteria.
6. Navigate to the Regions Interface window and query the region information that you have mapped and verify it; remove any that you do not want to load.

To load regions from locations:

1. Execute the Location to Region Mapping concurrent process. After it completes, check the log to verify the number of regions loaded and that there are no errors. For additional information, see *Oracle Shipping Execution User's Guide*, Reports, Documents, and Processes chapter.

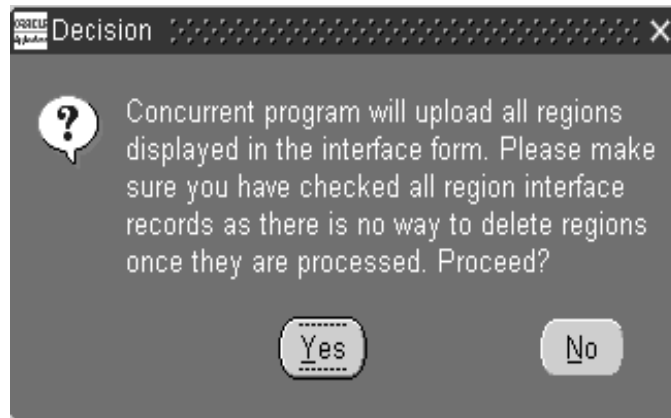
2. Navigate to the Regions Interface window.
3. Query the region information that you have mapped and verify it; remove any that you do not want to load.

Figure 4–48 Regions Interface Window

| Country | Country Code | State/Province | State/Province Code | City | City Code | From | To |
|---------|--------------|----------------|---------------------|------|-----------|------|----|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Load All Regions

4. Execute the Region Interface concurrent process by clicking Load All Regions and clicking OK. For additional information, see *Oracle Shipping Execution User's Guide*, Reports, Documents, and Processes chapter.

Figure 4–49 Decision Window

Oracle Shipping Debugger

Introduction

The Oracle Shipping Debugger is a package (WSH_DEBUG_SV) and set of profiles that enable you to debug the Oracle Shipping Execution application with the help of Oracle Support.

Calls are made to these new APIs from various places in the code:

- Entering an API
- Exiting an API
- Calling another API
- Any other places, as required

The Oracle Shipping Debugger enables you to do the following:

- Print messages in a concurrent log file or debug log file
- Print timing information for API calls
- Run PL/SQL profiler

- Start Order Management and Inventory debuggers and print Order Management and Inventory messages to same debug file along with Shipping Execution debug messages
- Start and stop the debugger for each session or action in the following ways:
 - Within the Shipping Transactions form, Tools menu, select Debug
 - Within the Release Sales Orders for Picking (Pick Release) window, Tools menu, select Debug
 - Log Level parameter on Oracle Shipping Execution concurrent programs

The Oracle Shipping Debugger enables you to debug certain areas of Code Flow.

Logging is enabled or disabled in two dimensions:

- Level: A scale specifying the priority of a log message
- Module: Describes which part of the code the log message is in

The level and module of any given log message are defined by the programmer who makes the logging API call to log the message.

Shipping Debugger Profile Options

There are 5 profile options specific to the Oracle Shipping Debugger:

1. WSH: Debug File Prefix: Naming Convention for Debug File is <Debug File Prefix Profile>_sessionid.dbg If value of profile is null, naming convention is wsh_<username>_<sessionid>.dbg Where: <username> is Application user name. If application context is not established, it will be defaulted to dbuser: <dbusername>. <sessionid> is Database session id.
2. WSH: Debug Enabled: Select from the Debug Enabled LOV either YES or NO to activate the debug feature. The default is NO.
3. WSH: Debug Module: The Module describes where to find the log message within the code. This profile indicates that debug messages from only those modules with names beginning with the profile value will be logged. The naming convention for Module is: <application short name>.<directory>.<package>.<routine>. <label> e.g. wsh.plsql.WSH_WV_UTILS.convert_uom.
4. WSH: Debug Log Directory: The value entered for this profile option must be specified as a UTL_FILE parameter value.

5. WSH: Debug Level: The level is a scale specifying the priority of a log message. The level is the lowest level for which the user wants to see messages. Select from the Debug Level LOV one of the following.

Valid Values are (in increasing order of priority):

- Performance
- Statement
- Procedure (Default)
- Event
- Exception
- Error
- Unexpected Error

To obtain the most information within the debug file, set the Debug Level to Statement.

6. WSH: Run PL/SQL Profiler: If this profile option is turned on and you are using PL/SQL, then it collects the performance statistics for the PL/SQL code.

Topics covered in this chapter include the following:

- [Overview](#) on page 5-2
- [Required Setup](#) on page 5-2
- [Process Steps](#) on page 5-5
- [Using Workflow in Order Management](#) on page 5-11
- [Workflow](#) on page 5-12
- [Returns](#) on page 5-14
- [Internal Orders](#) on page 5-29
- [Quick Sales Orders](#) on page 5-34
- [Blanket Sales Agreements](#) on page 5-36
- [TeleSales eBusiness Center to Sales Order Window](#) on page 5-38
- [Related Items and Manual Substitutions](#) on page 5-39
- [Maintain Line Number on Copied Orders](#) on page 5-41

Overview

In Oracle Order Management, the Sales Order window enables you to organize, enter, view, and update order information. Order Management offers line level independence where you can capture regular orders as well as returns using the same window. The Sales Order window offers you a convenient and quick entry point for creating and editing order information as well as viewing summary information from other subsystems such as Shipping, Receivables, and Purchasing, as well as the status of orders.

Oracle Order Management designed a mechanism called the Process Order API that performs a consistent validation of data manipulation (i.e. changes, deletions etc.) on the Sales Order attributes. This provides a consistent, secure, and valid means for managing sales orders.

Required Setup

To accomplish entering an order from entry to invoicing, the following setups are required:

Order Header/Line Workflow processes

Order Management comes with seeded Workflow processes. Review the seeded flows, activities and notifications to determine if the seeded data can meet your business needs. To successfully enter a standard order in OM, you can use the Generic - Order and Line Flows. If you need to modify the seeded workflows, it is recommended that you make a copy and modify the copy. You can also determine if you want certain activities to be Synchronous, Deferred, or Manual. The Workflow engine will move the order/line ahead as long as the activities are synchronous activities. The order or line flow will stop at any manual activity which will require a manual task to move the workflow along. The Workflow background engine processes deferred activities, notifications, wait activities and time out activities. You setup the Workflow background engine when setting up Workflow in your environment. You also need to schedule the Workflow Background Process concurrent program to re-submit periodically. When scheduling the concurrent program, please specify Order Management work item types as the parameter so that it will only pick up the activities or notifications for Order Management work items. See [Using Workflow in Order Management](#) for details on setting up workflow process.

Transaction Types

Both order and line transaction types need to be setup in order for an order to process from entry to invoicing. When setting up order types, assign order header and line workflows to the order type. Since each line can go through its own flow process, each line needs to have its own workflow process. Line level workflow processes are assigned based on the order type, line type, and item type combination. For example, adding Generic Order Type to Generic Line Type and Standard Item gives you a Generic Line Workflow process. See [Transaction Types](#) for details on setting up transaction types.

Document Sequence

The document sequence functionality is for numbering orders. The same sequence can then be assigned to all order types. For instance, you could define an automatic sequence beginning with 1 and assign it to all your order types. Then each new order that you enter will receive the next number in the sequence. See [Transaction Types](#) for details on document sequencing setup.

Processing Constraints

Order Management ships with seeded constraints that prevent data integrity problems. If your business requires more restrictive rules when processing orders, rules can be set up to control changes or operations of the order process flow. See [Processing Constraints](#) for details on setting up processing constraints.

Scheduling Activity

The Schedule function can be performed anywhere in a process flow according to your business needs. If you want to setup scheduling to run automatically, you can set it as a synchronous function within the workflow process so it will happen automatically. The profile option OM: Autoschedule should be set to Yes. Or the user can schedule manually directly from the sales order window. See [Scheduling](#) for details on scheduling setup.

Shipping Parameters

Set the Shipping Parameters specific to company picking and ship confirmation processes. The Shipping Parameters window consists of the following tabs: General, Pick Release, Shipping Transaction and Delivery Grouping. The General Tab includes percent fill basis, or quantity, and Weight and Volume UOM Class. These parameters are primarily used for the containerization functionality. The Pick Release Tab includes a default Pick Slip Grouping Rule, Release Sequence Rule and a Auto Pick Confirmation flag which confirms your order to be released from

Inventory. The Shipping Transactions Tab includes default Shipping Documents at ship confirmation and container packing controls. Finally, the Delivery Grouping Tab includes the criteria for grouping delivery lines. It must have the same ship to location, warehouse, and so forth as the order lines.

Master Items

A standard, finished good item should be defined in the Inventory module, with attributes set appropriately. The key attributes that control the processing of a finished good item are on the Order Management tab in the Master Item setup window. The flag Shippable and Transactable should be selected. The best way to create your items is to copy them from the Finished Good seeded template.

Item Quantity On-Hand

In order to ship an item, there must be sufficient quantity available. In a test environment you can create inventory by executing a miscellaneous receipt in the Inventory module. To generate a miscellaneous receipt, go to the Transactions > Miscellaneous Transactions window. Enter the newly created Item name and specify a subinventory and quantity and save. In a production environment, your inventory will typically come from receipts against purchase orders or completion of work orders. The quantity on hand for the item will be decremented the amount of the order line when pick releasing the order.

Price List Setup

To price the new item when entering the ordered item on the order, the user should add the new item to a price list. The item is added to a price list via the Price List Setup window: Pricing > Lists > Price Lists Setup. Query an existing price list or create a new price list. Add a new line, enter the item name, UOM and price and save. The price and UOM will default when entering the item on the order line.

Installed Base Integration

If you are using Oracle Installed Base version 11.5.6 or later, and you have items that are non-shippable but need to be interfaced to the Installed Base (such as PTO Models, PTO Option Classes, and Service Items), you will need to add the Installed Base Interface activity to your line level workflows. The activity is seeded. It should be added to the line workflow processes following the fulfillment activity.

Process Steps

This section will guide you through a basic sales order flow from entry to invoicing, including:

- Entering a standard sales order
 - Scheduling the order
 - Booking the order
 - Pick release
 - Ship confirm
 - Fulfillment
 - Invoicing interface
1. Enter Order Header information with a standard order type.

Note: There are no seeded transaction types. You will need to create a standard order type which uses the generic order and line workflow to progress the order through to invoicing. Refer to the Required Setup section for Workflow and Transaction Type setup. Figure 1 shows the Sales Order Header.

Figure 5–1 Sales Order Information (Header) Window

The screenshot displays the 'Sales Orders (97057) - Computer Service and Rentals' window. It features a menu bar (File, Edit, View, Folder, Tools, Window, Help) and a toolbar. The 'Order Information' tab is active, showing a 'Standard' order type. The 'Main' sub-tab is selected, displaying various fields for customer and shipping information, as well as a summary of charges.

| Customer Information | | Order Summary | |
|----------------------|------------------------------|---------------|----------------------|
| Customer | Computer Service and Rentals | Order Number | 97057 |
| Customer Number | 1006 | Order Type | Standard |
| Customer PO | | Date Ordered | 16-AUG-2001 15:11:09 |
| Customer Contact | | Price List | CORPORATE |
| Ship To | Chattanooga | Salesperson | Green, Ms. Suzanne |
| | 301 Summit Hill Drive | Status | Booked |
| | | Currency | USD |
| | Chattanooga, TN, 37401, US | Subtotal | 400.00 |
| Bill To | Chattanooga | Tax | 0.00 |
| | 301 Summit Hill Drive | Charges | 0.00 |
| | | Total | 400.00 |
| | Chattanooga, TN, 37401, US | | |

At the bottom of the window, there are four buttons: Actions, Configurator, Availability, and Book Order.

The Order Information screen is in a single record format. The most commonly used fields by all industries will be displayed by default. You may use the folder tools to add or remove fields which are displayed. Forms can be customized to meet business needs. Field values can be set up to default from a variety of sources such as the Order Type or the customer record. All defaults can be overridden unless the business unit defines constraints preventing update.

Once the Order Header information is entered, you will enter the line information within the Line Items screen. The Line Items window, shown in Figure 2, will display in multi-line format. The overflow region will display Item Description,

Line Total and Line Quantity fields. The Line, Ordered Item and Quantity fields are static in the window. Minimum line information required to book an order is item number and quantity. Other line information that can be entered in the Main tab include Schedule Date, Line Type, Source Type, etc. The Line Items window includes five additional tabs to enter detailed line information. These tabs include Pricing, Shipping, Addresses, Returns, Services, and Other.

Figure 5–2 Sales Orders: Line Items

Sales Orders (97057) - Computer Service and Rentals

Order Information | **Line Items**

Order Total: **400.00**

Main | Pricing | Shipping | Addresses | Returns | Others

| Line | Ordered Item | Qty | UOM | Unit Selling Price | Request Date | Schedule Ship Date | Status |
|------|--------------|-----|-----|--------------------|----------------------|----------------------|--------|
| 1.1 | AS54888 | 4 | Ea | 100.00 | 17-AUG-2001 00:00:00 | 17-AUG-2001 00:00:00 | Awai |
| 1.2 | AS54888 | 4 | Ea | 100.00 | 31-AUG-2001 00:00:00 | 31-AUG-2001 00:00:00 | Awai |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Line Total: **400.00** Line Qty: **4**

Description: **Sentinel Standard Desktop**

Actions | Configurator | Availability | Book Order

Other functions are available through the Actions button on both the Order Information and Line Items forms. On the Order Information window, the Actions include functions such as, Copy, Cancel, Apply and Release Holds, Price Order, etc.

In the Line Items window, the Actions include additional functions such as, Split Line, ATP, Price Line, Configurator, etc.

2. Schedule the order. This can be setup to be performed manually or automatically, depending on the user's needs. The user can schedule orders automatically by setting the Autoscheduling feature via a profile option or from the Special menu. Or the user can schedule orders manually by using the right mouse button or from the Special menu. Refer to the topical essay on Scheduling in this manual for the details of scheduling. Once the order is scheduled, the schedule ship date will be populated on the lines of the order.
3. Book the order. Users are able to book an order at either the Order Information tab or Line Items tab via the Book button.
4. Pick release the order from the Shipping > Release Sales Orders > Release Sales Orders window. Make sure to include a Release Sequence Rule, a Warehouse, a Pick Slip Grouping Rule and check the Auto Detail and Auto Pick Confirm boxes. Users can also pick release their orders from the Shipping Transaction window. Although, the user will need to setup their Shipping Parameters to ensure the order is released. Refer to the *Required Setup* section below for details.
5. View the Pick Status of the lines. The lines of the order must be in a status Released to proceed to the Ship Confirmation activity in the Workflow process. You can view the status in the Shipping Transaction window. First, the user will query the order number in the Query Manager window (Figure 3). This window will execute your query and populate the order lines in the Shipping Transaction window.

Figure 5–3 Query Manager Window

The screenshot shows the 'Query Manager' window with a 'Criteria' tab selected. The window is divided into several sections:

- Left Panel:**
 - Name:** [Text Field]
 - Description:** [Text Field]
 - Sharing:**
 - Owner: **VISION**
 - Share? ☐
 - Entity Type to Search:**
 - ☒ Trips
 - ☐ Stops
 - ☐ Deliveries
 - ☐ Lines/Containers
- Criteria Tab (Right Panel):**
 - Delivery Lines:** [Text Field] - [Text Field]
 - Containers:** [Text Field] - [Text Field]
 - Status:** [Dropdown Menu]
 - Item:** [Text Field]
 - Consignee:** [Text Field]
 - Ship Method:** [Text Field]
 - Ship from Site:** [Text Field]
 - Ship to Site:** [Text Field]
 - Dates Scheduled:** [Text Field] - [Text Field]
 - Dates Shipped:** [Text Field] - [Text Field]
 - Source System:** **Order Entry** [Dropdown Menu]
 - Order Numbers:** **5107** [Text Field] - **5107** [Text Field] ...
 - Order Type:** **Standard** [Text Field]
 - Order Line:** [Text Field]

At the bottom of the window, there are buttons: **Open ...**, **Save**, **Copy**, **Delete**, **Clear**, and **Find...**

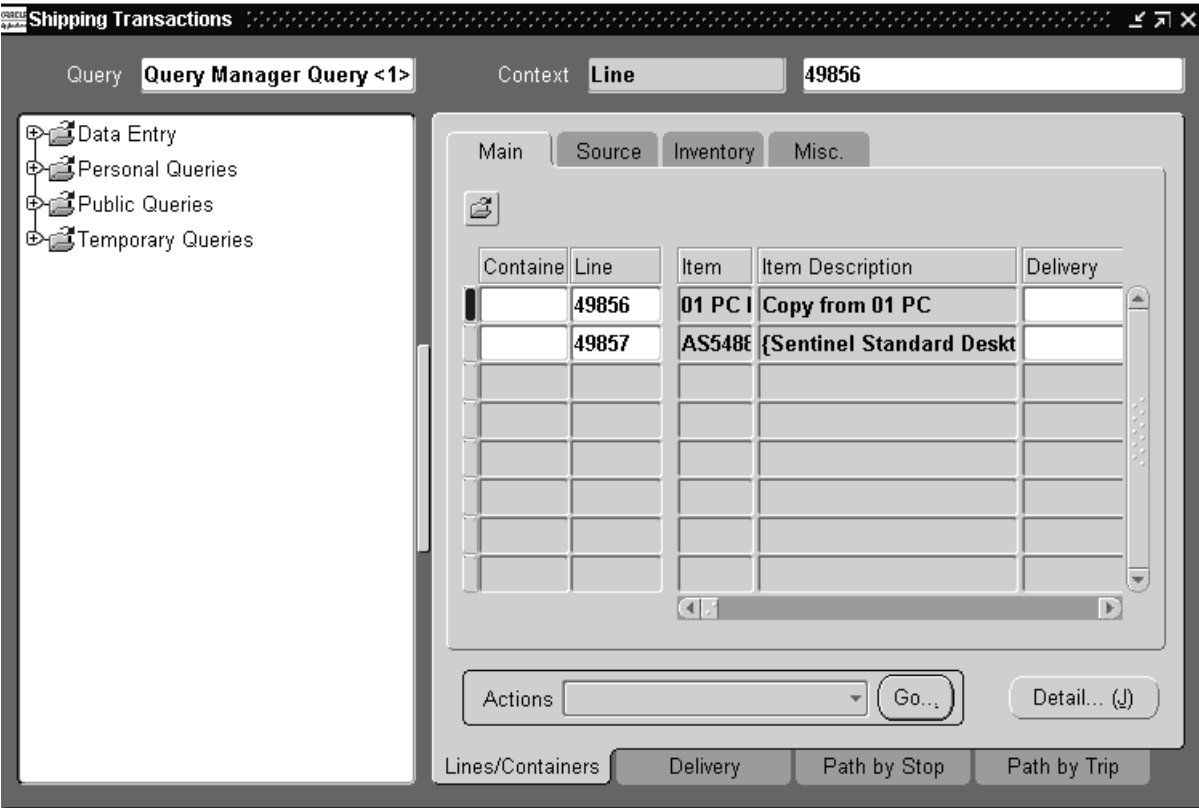
To view the status of the lines, use the horizontal scroll bar in the Lines/ Containers tab of the Shipping Transaction window, and scroll to the right to a field called Pick Status. You can also click on the Detail button to open up the window. The status should be Released for all lines.

6. Create a Delivery. This can be performed automatically during Pick Release by selecting AutoCreate Delivery equal to Yes. This can also be performed manually or automatically within the Shipping Transaction window (Figure 4). If you manually create a delivery, you need to use the same ship to address, warehouse etc. based on the setup criteria of the shipping parameters. Refer to the Required Setup section for information on Shipping Parameters. In this example, we will create a delivery automatically within the Shipping

Transaction window. Once the order has been queried, the lines will appear in the Shipping Transaction Window. To create a delivery automatically, highlight (Ctrl + mouse click) the lines you want to include in the delivery, select the Actions list and choose Autocreate Deliveries and GO. A system generated delivery name will be populated on all of the lines selected. At this time, you can click on the Delivery Tab to see the delivery name, ship to location and other shipping information.

Note : If you want to use prefixes or suffixes with delivery names, modify the wsh_external_custom.delivery_name package. No profile options exist for specifying prefixes or suffixes.

Figure 5–4 Shipping Transaction Window



7. Ship Confirm the order. Specify a quantity to be shipped in the Lines/Containers tab of the Shipping Transaction window, and optionally enter a Waybill in the Delivery Tab. To ship confirm the order, select the Actions list in the Delivery Tab, choose Ship Confirm and GO. The ship confirmation window will appear and give you the options to backorder, ship all or ship partial quantities and set user defined shipping documents to print. The ship confirm process triggers the inventory interface automatically to update quantities, and triggers the Order Management Interface to update the status of the order lines.
8. The fulfillment activity acts as a synchronization point for all lines on the order that are in a fulfillment set. The lines in the fulfillment set will wait at the fulfillment activity until all the lines in the set have reached the activity. Lines that are not in a fulfillment set simply pass through the activity.
9. Invoice the order. Once the Fulfillment activity completes, a Background Workflow Process processes the order line(s) to the Invoice Interface activity. The invoice interface activity places the information from the sales order line into the Receivables Interface tables. When the information is written to the tables, the invoice interface activity is complete, and the line proceeds to the close line activity. However, note that the invoice is not actually generated until the Autoinvoice program in Receivables has been run. The invoice will then be viewable in the Sales Order window.

Using Workflow in Order Management

Workflow technology supports automation and continuous improvement of business processes. It supports routing information of any type according to user-defined business rules. Business transactions, such as order placements or purchase requests that involve various controls, routings, and approvals, can be managed more efficiently by leveraging Workflow technology. This is the primary reason why Oracle Order Management integrates with Oracle Workflow: to provide you with a comprehensive order processing and fulfillment system.

Oracle Order Management uses Oracle Workflow to control the sequence of events that occurs in the processing of orders, returns, order lines, and return lines. Oracle Workflow manages activities, executes functions, sends notifications, maintains completed activity history, detects errors, and initiates error processes. Oracle Order Management also uses Oracle Workflow to enable you to track the history of orders. Oracle Order Management enables you to model your business processes in terms of generic order processes. When defining a new workflow, you can begin with the basic activities of order processing. You can extend your business processes copying and editing seeded flows, or by using seeded and custom activities as components.

Oracle Workflow in Oracle Order Management provides details about how to extend Oracle Workflow in Oracle Order Management to best meet your business needs. This guide also provides detailed information regarding the workflow processes that come seeded with Oracle Order Management.

See

Using Oracle Workflow in Oracle Order Management

Workflow

A basic order flow, from entry to invoicing, will most commonly use the Generic Order and Line flows which are assigned to a Generic order type. Figure 5 is an example of a Generic Order Workflow process (enter > book > close):

Figure 5–5 Order Flow - Generic Workflow Process

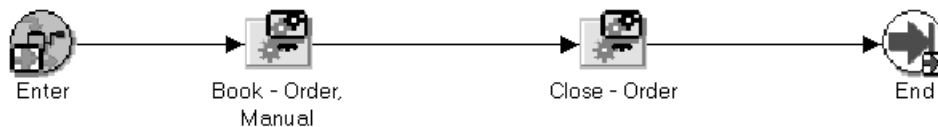
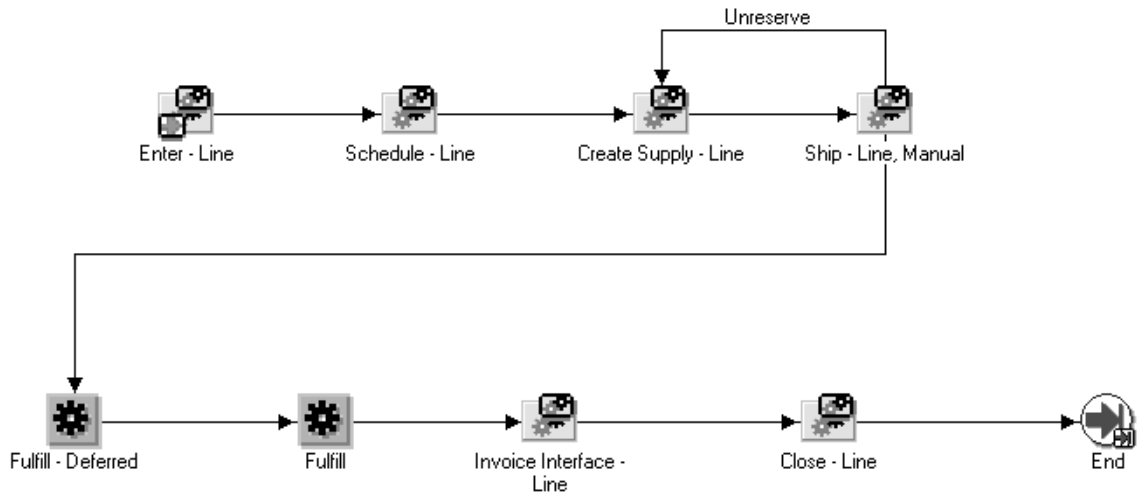


Figure 6 is an example of a Generic Order Line Workflow process (enter > schedule > ship > bill > close):

Figure 5–6 Line Flow - Generic Workflow Process



Returns

Overview

Oracle Order Management provides a Return Materials Authorization (RMA) functionality within the Sales Order window, where you can enter both standard and return order lines within the same order. RMA is often used with Return or Credit Orders and Returned Material. An order can have a mix of outbound (regular) and inbound (return) lines, if not restricted by the order type definition. Credit order types have an order type category Return and an order with Mixed order type category can contain both regular and return lines. Each order type and each line type is associated with a workflow process. A return line is indicated by Line Type and by its negative and highlighted item quantity and line total price. Line types can be variations of Return, such as Return with Approval, or Return for Credit Only, and have a line type category of RETURN.

There are three ways to create RMA's within Order Management. First, identify a sales order to be returned and query the order lines. After you have selected the sales order or order lines, use the Copy function in the Actions list to generate the return order or line by specifying an RMA line type. Second, reference a sales order, invoice, PO number or serial number of an item directly in the Return Reference field within the Line Items tab of the Sales Order window. Lastly, for return without originating sales order line, manually enter return line information and choose the appropriate return line type in the Sales Order window.

Setup

Profile Options

OM: Return Item Mismatch Action This profile allows a mismatch value between the item on the RMA line and the item on the referenced line. For example, you may need to allow a mismatch when a wrong item is shipped and you want to put the correct item on the RMA line. The seeded value is Allow or no profile option entry will be treated as Allow.

OM: Return Unfulfilled Referenced Line Action This profile allows non-fulfilled lines to be used as referenced lines. The seeded value is Allow or no profile option entry will be treated as Allow.

OM: Overshipment Invoice Basis This profile determines when an over-shipment happens, should the invoicing module invoice the ordered quantity or the shipped quantity. For instance, material is received at the receiving dock, the quantity received will be compared with the RMA, which could be less than tolerance, within tolerance or greater than tolerance. When the received quantity is greater than tolerance, Purchasing will create a receipt with the quantity on the return line and an unordered receipt for the remaining quantity. When Order Management is notified by the customer about the over-return, another return line will be created so that Purchasing can match it against the unordered receipt.

OM: Credit Memo Transaction Type This profile option value is transferred to Receivables if no value is defined for the credit memo transaction type. Default value is the name of the transaction type.

OM: Over Return Tolerance This profile option indicates the percentage by which a return line can be over-received. Any value greater than or equal to zero (0) is a valid value. This profile option is set at the site level. The default value is zero (0).

OM: Under Return Tolerance This profile option indicates the percentage by which a return line can be under-received for it to be considered fulfilled. Any value between zero (0) and 100 (both inclusive) is a valid value. This profile option is set at the site level. The default value is zero (0).

Workflow

Order Management comes with seeded Oracle Workflow processes. Review the seeded flows, activities and notifications to determine if the seeded data can meet your business needs. To successfully enter a RMA in OM, you can use the Generic - Order Flow Return with Approval and Line Flow - Return for Credit only. The user can also modify existing seeded workflows or create new workflows to include or exclude inspections and/or invoicing activity. For instance, you can have the Invoicing Activity after the Receiving activity, or you can simply close the line without interfacing data to Receivables. For inspections, a workflow can be setup to process Invoicing once the materials have been received or to wait until inspection has been completed before invoicing is invoked. The seeded workflow will process Invoicing only after the completion of Inspection (delivery) Activity. Also, if any return lines are flagged as non-shippable or non-transactable, the Receiving workflow activity will complete with a Not Eligible result. Although, fulfillment of ATO/PTO items is required before crediting the ATO/PTO lines. This is achieved by inserting ATO/PTO lines into Fulfillment sets. This means the ATO/PTO line will wait at fulfillment until all its children are received and reach fulfillment.

Transaction Types

Both order and line transaction types need to be setup in order to process an RMA. When setting up order types, you need to assign order header and line workflows to the order type. Since each line can go through its own flow process, you need to setup workflow assignments to let each line assign its own workflow process. Credit order types have an order type category Return. An order with a Mixed order type category can contain both regular and return lines. Line level workflow processes are assigned based on the order type, line type, and item type combination. When you setup a return order type or mixed order type, you have the option to set a default return line type, so that the user doesn't have to manually choose the line type unless they want it to be different. Refer to the topical essay Using Transaction Types in Oracle Order Management at the end of this manual for details on setting up transaction types.

Master Items

You can create a return line only if an item is Returnable. Therefore, a standard, finished good item should be defined in Oracle Inventory with appropriately set attributes. The best way to create your items is to copy them from the Finished Good seeded template and set additional attributes as needed in the Master Item window. The key attributes that control the processing of a returnable item are:

- Order Management Tab: Returnable, Shippable and Transactable = Yes, RMA Inspection Required = Yes or No
- Receiving Tab: Receipt Routing = Inspection (if required)
- Invoicing Tab: Invoicable Item = Yes or No, Invoice Enabled = Yes or No

Note: If the Item is not flagged as Returnable, Shippable and Transactable, you cannot receive in Oracle Purchasing's receiving module and if the item is not flagged as Invoicable the return lines will not interface to Receivables. Also, an item can be returnable but not orderable. This is commonly used if a company stops selling an item, but they still want to be able to do returns for it.

For lot and/or serial controlled items, Oracle Order Management has the capability to store one or more lot and serial numbers associated with one RMA line. Oracle Order Management does not validate the serial numbers against Inventory serial numbers in the system or against serial numbers associated with the referenced sales order. Receiving captures the serial numbers of the items at delivery. The Credit Order Discrepancy Report can show the difference between actually

delivered lot/serial numbers and the numbers on the RMA. The sales order window can capture lot and serial numbers suggested by the customer for the RMA line.

For ATO/PTO configurations, only the Returnable configuration lines are displayed on the sales order window. You need to make sure that the item attributes are set correctly for ATO/PTO children items.

Price List Setup

In order to price any new items when entering an ordered item on the sales order window, add the new item to a price list. The item is added to a price list in the Price List Setup window: Pricing > Lists > Price Lists Setup. Query an existing price list or create a new price list. Add a new line, enter the item name, UOM and price and save. The price and UOM will default when entering the item on the order line. When an RMA line is created and the originating transaction is known, the pricing information is populated from the originating order line. The user can change the pricing if needed. The list of values on the Price List will show all the active price lists on the pricing date. Also, ATO configured items and PTO included items should be included on a price list in order to be received and credited.

Processing Constraints

Order Management has seeded constraints that prevent data integrity problems. For instance, you can prevent change for a line if it has been:

Closed

Canceled

Canceled at order level

Shipped

Invoiced

A return line cannot be canceled after it has been interfaced to Receivables or after it has been received. If your business needs more restrictive rules when processing orders, you can set up rules to control changes or operations of the order process flow. See [Order Management Processing Constraints](#) for details on setting up processing constraints.

Return Reason Codes

You can set up your own reason codes in the Receivables QuickCodes window. Navigate to the Order Management responsibility and select the menu: Setup >

Quickcodes > Receivables. The Oracle Receivables Lookup window will appear. Query the CREDIT_MEMO_REASON code from the query manager (Flashlight icon). View the existing codes or add a new code. These codes appear in the Return Reason list of values.

Reports

The Returns by Reason report can be used to view all return reasons setup in the system. You can run the report by Return Reason, Credit Order Date, Credit Order or Line Type and/or Item Number.

Freight and Special Charges for Returns

When setting up freight or special charges, you can specify if the charge is returnable, meaning the charge may be refunded. When you create a return line from an original order line, you should copy the refundable invoiced charges. You can also setup special charges to be applied specifically to returns, like restocking fees, return handling, damage etc. You can set this through an attribute called Refundable Flag (Include on Returns field) within the Pricing Modifier setup. See [Freight and Special Charges](#) for more information.

Process Flow

This section will guide you through a basic flow for a Return for Credit with Receipt, from entry to generating a credit memo, including:

- Create an RMA having a single line whose originating transaction is unknown
 - Book the RMA
 - Receive the RMA using the Receipts window of Oracle Purchasing
 - Check the on-hand quantity of the item in Inventory to verify that correct quantity was received
 - Fulfill RMA line
 - Generate a Credit Memo
 - View the Credit Memo in Order Management
 - Check the Shipped and Fulfilled quantity on the RMA line
1. Enter the RMA on the Sales Order window. Entering a return on the Sales Order window, is exactly the same as entering an order, except at the line level where the user specifies the Line Type as a Return and a negative line quantity and total quantity appear on the window. Thus, in the Order Information tab of the

Sales Order window, the user will enter the same information (i.e. Customer Name, Order Type, etc.) as a standard order. The Standard order type is assigned to a Generic Order and Line workflow which allows either an order or return to be entered. Refer to the Workflow section for details on the Generic Order and Line workflow for returns. [Figure 5-7](#) is the Sales Order window for entering the Header information for the RMA:

Figure 5-7 Sales Order Information (Header) Window

The screenshot shows the Oracle Applications window titled "Oracle Applications - tst115". The menu bar includes File, Edit, View, Folder, Tools, Window, and Help. The toolbar contains various icons for file operations and application functions. The window title bar reads "Sales Orders - [New]".

Inside the window, there are two tabs: "Order Information" (selected) and "Line Items". Under "Order Information", there are two sub-tabs: "Main" (selected) and "Others".

The "Main" tab displays the following information:

| | | | |
|------------------|---------------------------|--------------|--------------------------|
| Customer | Computer Service and Re | Order Number | |
| Customer Number | 1006 | Order Type | RMA - Credit |
| Customer PO | | Date Ordered | 22-JAN-2002 13:31:55 |
| Customer Contact | | Price List | CORPORATE |
| Ship To | Chattanooga | Salesperson | Smith-Jones, Ms. Dolores |
| | 301 Summit Hill Drive | Status | |
| | | Currency | USD |
| | Chattanooga, TN, 37401, L | Subtotal | 0.00 |
| Bill To | Chattanooga | Tax | 0.00 |
| | 301 Summit Hill Drive | Charges | 0.00 |
| | | Total | 0.00 |
| | Chattanooga, TN, 37401, L | | |

At the bottom of the window, there are four buttons: "Actions", "Configurator", "Availability", and "Book Order".

- 2. Once the Order Header information is entered, you will enter the line information within the Line Items screen, as seen in [Figure 5-8](#):

Figure 5-8 Line Items Window

The screenshot shows the Oracle Applications interface for a Sales Order. The window title is "Oracle Applications - tst115". The menu bar includes "File", "Edit", "View", "Folder", "Tools", "Window", and "Help". The toolbar contains various icons for file operations and navigation. The main window is titled "Sales Orders (87) - Computer Service and Rentals". It features a tabbed interface with "Order Information" and "Line Items" tabs. The "Line Items" tab is active, showing a table with columns: "Line", "Ordered Item", "Qty", "Return Reason", "Line Type", "Reference", and "Order". The first row is highlighted, showing "1.1", "AS54888", "-1", "Product Return", "Return with Rece", and empty cells for "Reference" and "Order". Below the table, there are fields for "Line Total" (52.90), "Line Qty" (-1), and "Description" (Sentinel Standard Desktop). At the bottom, there are buttons for "Actions", "Configurator", "Availability", and "Book Order".

| Line | Ordered Item | Qty | Return Reason | Line Type | Reference | Order |
|------|--------------|-----|----------------|------------------|-----------|-------|
| 1.1 | AS54888 | -1 | Product Return | Return with Rece | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Line Total: 52.90 Line Qty: -1
Description: Sentinel Standard Desktop

Actions Configurator Availability Book Order

- 3. In the Main Tab, enter the Ordered Item and the Quantity to be returned. The user can enter a positive or negative number. You will also see that the negative quantity will be highlighted in another color. Next, in the Returns tab, the user

will need to enter the Line Type as a return (i.e. Return for Credit with Receipt of Goods) and enter a Return Reason. A Return Reason is required to be entered (i.e. Product Discontinued). Since we did not reference a sales order, we are entering a single line RMA where the originating transaction is unknown.

4. Book the RMA. Users are able to book an order or return at either the Order Information Tab or Line Items Tab via the Book button.
5. Receive the RMA using the Receipts window of Oracle Purchasing. Change responsibilities to Purchasing and navigate to the Receiving > Receipts window. In the Receipts window, an Organization window will be displayed if this is the first time you have navigated to the Purchasing > Receipts window since your login. The organization you choose should be the same warehouse where your RMA is created. In the Receipt Header window, select the Customer Tab and find your RMA #. Tab through the Header window to the Receipts Line window. Once you are in the Receipts Line window, the RMA number and quantity will populate the window. Check the box next to the line you wish to receive, enter a Destination Type as Inventory and subinventory. Save this transaction and record the receipt number in the Header window. By choosing the Destination Type as Inventory, the user is creating a transfer to inventory transaction in Purchasing. These items are now considered as supply. Purchasing will communicate the quantity received to Order Management to update the RMA.

Figure 5–9 Receipt Header Window

Oracle Applications - tst115

File Edit View Folder Tools Window Help

Receipts (V1)

Receipt Header (V1)

☒ New Receipt ☐ Add To Receipt

| | | | |
|-----------------|-----------------------------|-----------------|----------------------|
| Receipt | <input type="text"/> | Receipt Date | 22-JAN-2002 |
| Shipment | <input type="text"/> | Shipped Date | <input type="text"/> |
| Packing Slip | <input type="text"/> | Waybill/Airbill | <input type="text"/> |
| Freight Carrier | <input type="text"/> | Bill of Lading | <input type="text"/> |
| Containers | <input type="text"/> | Received By | Stock, Ms. Pat |
| Customer | Computer Service and Rental | | |
| Comments | <input type="text"/> | | |

Figure 5–10 Receipts (Line) Window

The screenshot shows the 'Receipts (V1)' window with a menu bar (File, Edit, View, Folder, Tools, Window, Help) and a toolbar. The window has several tabs: Lines, Details, Currency, Order Information, Outside Processing, and Shipment Information. The 'Lines' tab is active, displaying a table with columns: Quantity, UOM, Inventory, Locator, Category, ASN Type, and Country of Origin. The first row is selected, showing a quantity of 1, UOM of Each, and Category of PRODUCTN.FINGOOD. Below the table are buttons for adding (+) and removing (-) lines. At the bottom of the window, there is a summary section with fields for Order Type, Customer, Item Description, Destination, Receiver Note, Note for Receiver, Order, Due Date, Hazard, UN Number, and Routing. At the very bottom are four buttons: Lot - Serial, Cascade, Express, and Header.

| Quantity | UOM | Inventory | Locator | Category | ASN Type | Country of Origin |
|----------|------|-----------|---------|------------------|----------|-------------------|
| 1 | Each | s | | PRODUCTN.FINGOOD | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| | | | |
|-------------------|------------------------------|-----------|-------------------|
| Order Type | Return with Receipt of Goods | Order | 20016 |
| Customer | Computer Service and Rentals | Due Date | 18-DEC-2001 |
| Item Description | {Sentinel Standard Desktop | Hazard | |
| Destination | --Stores-- | UN Number | |
| Receiver Note | | Routing | {Standard Receipt |
| Note for Receiver | | | |

Lot - Serial Cascade Express Header

6. Check the on-hand quantity of the item in Inventory to verify that correct quantity was received. Change responsibilities to Inventory and navigate to the Transactions > Material Transactions window. In the Material Transactions window, an Organization window will be displayed if this is the first time you have navigated to the Inventory > Material Transactions window since your login. The organization you choose should be the same warehouse where your RMA is created. Find the item name being returned and navigate to the Transaction Type tab. Verify that the source type is RMA and the source is your

RMA # for the quantity being returned. This window will show you your item #, the subinventory chosen and the quantity specified to be returned from the Receipts window.

Figure 5–11 Material Transaction Window

The screenshot shows the 'Material Transactions (V1)' window. It has a menu bar (File, Edit, View, Folder, Tools, Window, Help) and a toolbar. Below the toolbar are tabs: Location, Intransit, Reason, Reference, Transaction ID, and Transaction Type. The main area is a table with columns: Item, Source Type, Source, Transaction Type, and Transaction ID. The table contains 10 rows of data for item AS54888. Below the table are fields for Item Description, Primary UOM, Date, and Primary Quantity. At the bottom are buttons for Distributions, Lot / Serial, Clear, and Find.

| Item | Source Type | Source | Transaction Type | Transaction ID |
|---------|--------------|-----------------|-------------------------------|----------------|
| AS54888 | {Sales order | 96629.{Standard | {Sales order issue | Issue from |
| AS54888 | {Sales order | 96632.{Standard | {Sales order issue | Issue from |
| AS54888 | {Sales order | 96629.{Standard | {Sales order issue | Issue from |
| AS54888 | {Sales order | 96632.{Standard | {Sales order staging transfer | Staging t |
| AS54888 | {Sales order | 96632.{Standard | {Sales order staging transfer | Staging t |
| AS54888 | {Sales order | 96629.{Standard | {Sales order staging transfer | Staging t |
| AS54888 | {Sales order | 96629.{Standard | {Sales order staging transfer | Staging t |
| AS54888 | {Sales order | 96629.{Standard | {Sales order staging transfer | Staging t |
| AS54888 | {Sales order | 96629.{Standard | {Sales order staging transfer | Staging t |
| AS54888 | {Sales order | 96630.{Standard | {Sales order issue | Issue from |

Item Description: {Sentinel Standard Desktop} Date: 14 JAN-2002 17:51:51
Primary UOM: Ea Primary Quantity: -2

Buttons: Distributions, Lot / Serial, Clear, Find

7. Fulfill RMA line. The fulfillment activity acts as a synchronization point for all lines on the order that are in a fulfillment set. The lines in the fulfillment set will wait at the fulfillment activity until all the lines in the set have reached the

activity. Lines that are not in a fulfillment set simply pass through the activity automatically. The user will not have to perform anything during this step. The eligible lines will automatically be put into a fulfillment set.

8. Generate a credit memo for the return. The Workflow process of the return line(s) will be on the Invoice Interface activity, once the Fulfillment activity completes. The invoice interface activity places the information from the return line into the Receivables Interface tables. Once the information is written to the tables, the invoice interface activity is complete, and the line proceeds to the close line activity. However, note that the credit memo is not actually generated until the Autoinvoice program in Receivables has been run. The credit memo will then be viewable in the Sales Order window. To run the Autoinvoice program, the user needs to change responsibilities to Receivables and navigate to the Interfaces window. Select the Autoinvoice Master program and run the program for your RMA # and specify the invoice source as the one associated with the line type of the RMA line. The Autoinvoice Master program will generate the Autoinvoice Import program which generates the credit memo.
9. View the credit memo in Order Management. To view the credit memo in Order Management, the user need to change responsibilities to Order Management > Orders, Returns > Order Organizer window. Query your RMA # in the Order Organizer. Once the RMA is queried, select the Actions button and choose Additional Order Information. Once the Additional Order Information window has opened, click on the Receivables tab to view the credit memo. This window will show your the credit memo number and amount.
10. Check the Shipped and Fulfilled quantity on the RMA line. From the above step, navigate in the Sales Order window to the Line Items tab for the RMA. Scroll to view the Shipped Quantity field. To access the Fulfilled Quantity field, the user needs to use the folder technology to add the field to the sales order window. To add the field, click on the Warehouse field in the Shipping Tab of the Line Items window. Next, select the Folder menu at the top of the window, select Show Field and choose the Quantity Fulfilled field from the list. The field will populate in the window. The Shipped Quantity means the received quantity for return lines and the Fulfilled Quantity means the delivered quantity for the return lines.

Workflow

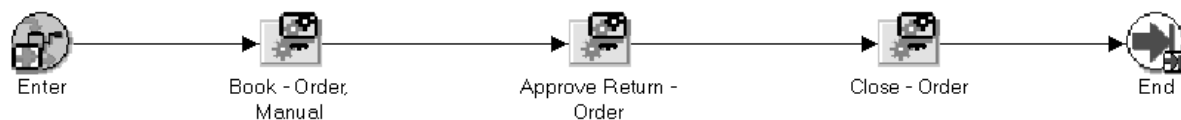
In Oracle Order Management, you can have many types of credit order by specifying it's Order Type and Line Type. Each order type and each line type is associated with an Oracle Workflow process. You can customize order types and RMA line types to meet your business needs. For instance, you can use Approvals

and Holds with returns in order to manage exceptions when your customer returns more or less than you authorize.

Credit order types have order type category Return'. An order with a Mixed order type category can contain both regular and return lines. But you cannot enter return lines into an order with order type category Regular.

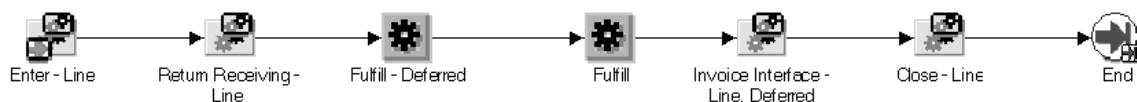
[Figure 5-12](#) is an example of a seeded Order Return Flow process (enter -> book -> approval notification -> close):

Figure 5-12 Order Flow - Return with Approval



[Figure 5-13](#) is an example of a seeded Order Return Line Flow process (enter -> return-> invoice -> close):

Figure 5-13 Line Flow - Return for Credit with Receipt

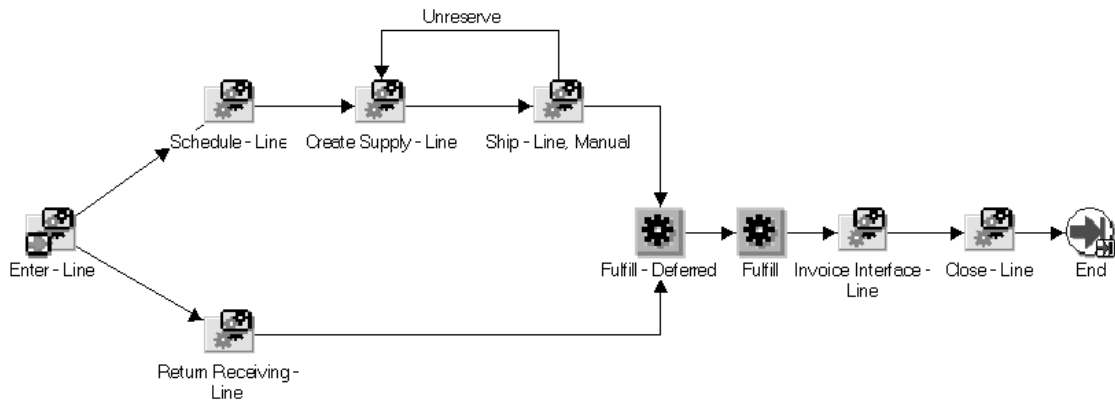


[Figure 5-14](#), [Figure 5-15](#), and [Figure 5-16](#) are other workflow processes that Order Management seeds for Return Line flows:

Figure 5–14 Line Flow - Return for Credit only**Figure 5–15 Line Flow - Return for Credit only with Approval**

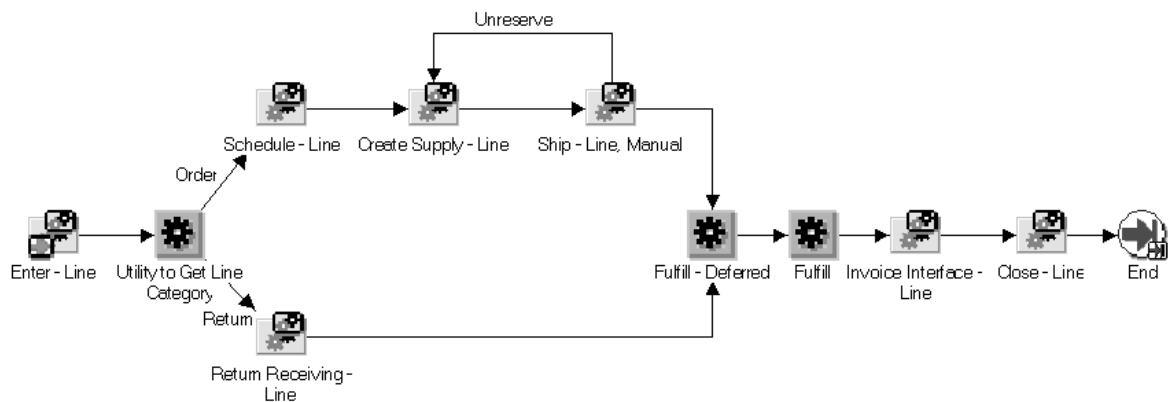
In Oracle Order Management, there are also flows that support both order and return lines (inbound and outbound transactions), however, there are no seeded workflows. You can create flows that support both Order and Return Lines. For instance, the flow listed below (Figure 10) will not work correctly, since once a line is booked, workflow randomly picks which transition to process first. It then processes it all the way till it can go no further. So for an outbound Line using this flow, if the branch 'Returns receiving' is first processed, it will get marked as Not Eligible and hit the Fulfill -Defer activity (to defer thread) and stop. Then the WF Engine starts executing the other branch; the line will schedule and hit the Ship - Line, Manual sub-process, where it will stop and wait to get picked and shipped. However the Background Engine could pick up the deferred thread and execute the Fulfill activity. This activity will error out since the fulfilling event for the order line Ship-Confirmation is not yet complete.

Figure 5–16 INCORRECT Line Flow - Supporting inbound and outbound shipments



For this flow to work **correctly**, the flow ensures that only one transitions is executed (Order or Return). The flow needs to be defined as follows:

Figure 5–17 CORRECT Line Flow - Supporting inbound and outbound shipments



After booking the line flow branches based on the Line Category ensuring **that only one** of the branches are (Order or Return) executed runtime. The activity Utility to get Line Category is seeded OM: Order Line Work Item.

With regard to item inspections, the Order Management system does not process inspection results, and only processes delivery transactions. Based on the users business rules, if an item is rejected, the user can either deliver to inventory (scrap sub-inventory) or return to the customer. Delivering to inventory will give credit to the customer. Returning to the customer will reduce the shipped quantity and credit will be given for only accepted goods. Therefore, receiving transactions drive the flow of the return and what gets credited.

Internal Orders

Overview

The Internal Requisition/Internal Orders process is used for requesting and transferring material from one inventory or expense location to another. An Internal Requisition is initiated in Oracle Purchasing. Sourcing rules can automatically determine if the source type is to be Inventory or an external supplier. Order Management receives information from the Purchasing Application to create an Internal Sales Order. When the sales order is shipped (to indicate either intra or inter-organization movement of goods), the requisition can be received to record receipt of goods.

The Source Type attribute on the requisition line controls whether a line will be fulfilled internally or purchased from a supplier. A source type of Inventory indicates an internal order. Order Management is seeded with an Order Source of Internal, to identify lines created from internal requisitions. The internal requisition id is stored in the Original System Reference column on the order header of the Internal Order. It is not possible to manually enter Internal Orders using the Order Management user interface – these orders must come in via Order Import.

Within Release 11*i* Order Management, the internal order is processed almost exactly like an order that is to be shipped to an external customer. Some coordination between Order Management and Purchasing has been automated – tighter coordination is being planned for future releases.

See

Oracle Purchasing User's Guide for details of Purchasing set up and processing.

Setup

The following setup steps are required to process Internal Orders:

Customers

Because internal orders are processed through the sales order window, corporate locations that receive product via internal orders must be set up as customers. Create customer records to correspond to internal locations, and link them using location associations on the Customer bill-to site usage.

Items

Set up the items you want to allow on Internal Orders with both the Internal Orders enabled flag and the Internal Ordered Item flag on. Enable the item in both the source and the destination organizations

Order Type/Line Type

You do not have to set up special order types or line types for Internal Orders. You do have to specify in your Purchasing setup what order type you are using for internal orders, however. You can use any generic order type for internal orders.

Defaulting Rules

Analyze your business process and define defaulting rules for Internal Order defaults.

Processing Constraints

Seeded processing constraints in Order Management prevent changes to the Customer, Ship To, Invoice To, Warehouse, Request Date, Source Type, and the Ordered Quantity for internal lines. If you want to further restrict what can be changed on internal orders, you can constrain other attributes using the Internal Order validation template.

Order Source

An order source (for Order Import) of Internal is seeded. This should be selected in the Purchasing options setup for Order Source.

Price List

A price list needs to be defaulted during order processing but there is no validation during the internal order process. The items are transferred at their cost as defined in the source organization.

Process Steps

1. Enter Requisition in Oracle Purchasing. Sourcing Rules may set source type attribute to Inventory, or manually choose Inventory source type.
2. Approve the Internal Requisition.
3. Run the Create Internal Sales Order concurrent program in Purchasing to load the Order Import tables. This can also be scheduled as part of your set up to run periodically to meet business needs.
4. Run Order Import with Order Source = Internal in OM to create the Internal Order. Be sure to run Order Import using a responsibility that corresponds to the operating unit in which the internal order needs to be created. It is possible to create an internal order in an operating unit different from that of the internal requisition. This can also be scheduled as part of your set up to run periodically to meet business needs.
5. After Order Import completes successfully, book, pick and ship the internal order.
6. Receive against the Internal Requisition.

Workflow

There are no special Oracle Workflow implications to processing Internal Orders, the Standard Flows can be used. Even if the workflow contains a step for Invoicing Interface, Internal Order lines will not be invoiced.

Drop Shipments

Overview

Drop shipments occur when your customer orders product from you, you order the product from your supplier, and your supplier ships the product directly to your customer. Order Management sends information to the Purchasing Application to create that PO, and then when that PO is received (to indicate shipment from the

supplier to your customer), the order line is automatically updated to indicate that it was fulfilled.

In this process, the company running Order Management is modeled as the company to whom the end customer places the original order. We call this process Vendor Drop Shipment, to indicate that we are defining the process from this point of view.

The Source Type attribute on the order line controls whether a line will be fulfilled internally or drop shipped. A source type of External indicates Drop Ship. Only standard items may be drop shipped; kits and models cannot be drop shipped at this time. You can define an order type that specifies all of its lines be sourced externally.

Required Setup

Warehouse

Consider establishing a logical warehouse to receive drop shipments. This will isolate the costs of drop shipped items from items you physically stock. Order Management does not require you to use a special shipping org for drop shipments, but you can choose to do so. In that case, define the logical warehouse as a shipping org, and enable the items you want to be drop shipped in that warehouse.

Order Type/Line Type

Define line type/order types for your drop shipment orders that have a workflow containing the Create Supply activity.

Defaulting Rules

Define defaulting rules, based on conditions that make sense to your business process, for the source type attribute of the Order Line. If you want a line to be drop shipped, make the source type equal to External. In addition, if you defined a special warehouse for drop shipped items, you might want to create a defaulting rule to default that shipping org to your order line.

Process Steps

1. Enter and book an order.

Defaulting Rules may set source type attribute to External, or you can manually choose External source type.

Note: Only standard items can be drop shipped; kits and models cannot be drop shipped.

The Create Supply workflow step loads OM information into Oracle Purchasing's Requisition Import tables. Alternatively, a Purchase Release concurrent program can be run to do the same.

2. Run Requisition Import in Purchasing to create the requisition.
3. Approve the requisition to generate the Purchase Order.
4. Create a PO or autcreate a Blanket PO release from the approved requisition.

A drop ship order can be changed or canceled in Order Management after it has been sent to Oracle Purchasing but before receipt. However, the changes are not automatically communicated to Purchasing. A report, Sales Order/Purchase Order Discrepancy Report, shows what orders have changed. These changes need to be manually updated in Purchasing and then communicated to the vendor.

When the vendor ships product to your customer, you may receive an ASN, or even an invoice, to indicate shipment to the customer. The receipt triggers automatic receipt of the line in Purchasing. If the vendor does not send ASN, receipt can be entered manually (passive receiving). Inbound and outbound material transactions are automatically created for accounting purposes.

Order Management workflow proceeds to next step, typically invoicing of the end customer.

Workflow

The Generic Line workflow contains the Create Supply activity, which branches to various sub-processes based on different characteristics of the item and sales order line.

Order Management's workflows streamline the process of loading order information into the Purchasing Requisition import tables, eliminating the need to run the Purchase Release concurrent program. You can still run Purchase Release as a concurrent program, if you prefer to batch up requisition lines.

Quick Sales Orders

Overview

Quick Sales Orders reduces data entry and shortens the time required to perform this task through the use of a streamlined entry window. You can search for customer data by using the Easy Search feature, enabling you to search on various fields, then bring that customer's information into the order. Headers and lines are displayed in the same window. In the Line Details region you can add related items or upsell the existing item on the line as well as verify price and availability.

Use Quick Sales Orders to configure your user interface to meet business flow needs, and make input intuitive for users with minimal training. You can create keyboard hot keys or configure window buttons to reduce keystrokes using the folder function. Data entry is shortened by the reduced need for navigation to other windows. Processes can be deferred during order processing, including pricing and automatic data refresh processes.

The interface has been designed to facilitate orders to be entered with minimal data entry and time lag, and provides the following features and functions:

- Configurable user interface using the folder function to display/hide Tabs as well as columns at both Header and line
- The ability to configure how actions are executed
- Header and lines appear in a single full screen
- A new icon can be activated to display lines and line details on a single screen
- Related Items/ Upsell /Cross sell opportunities for user selection
- Price adjustments for user selection
- Display price and availability and associated price breaks for the ordered item or any item
- Configuration of model options
- Provides the ability to choose whether the Pricing engine is called during the entry process or upon command of the user
- Associate service lines with an ordered item or for an item on an existing order.
- A new icon to activate the find customer window and populate selection directly into the order.

- Configure the preferred line detail region required to open when navigating to the line details region.

Setup

There are no setup steps required to enable Quick Sales Order functionality. All pre-existing sales orders are queryable and modifiable from this window as currently supported in the existing sales order window. The quick sales order window does not currently support mass selection and view tax details. Use the sales order window to perform these functions.

Profile options

OM: Default Defer Pricing at Order Entry Values at Site Level

This profile controls the default setting of Defer Pricing; options are Yes or No. This value is read from the profile when a new session begins; however, a user is able to activate Defer Pricing directly.

OM: User Interface Defer Pricing

This profile determines if pricing is deferred during line entry. Options are Defer pricing to save, and No. For Defer pricing to save, pricing is done when the lines are saved. Line level pricing is suppressed. If No is selected, pricing is not deferred.

OM:Quick OE Auto Refresh. Site, Application, LOV

This profile controls the automatic refreshing of a window when changes have been made. It allows instant updating of the display. The options are Line, Line Detail, or Both.

OM: Use Configurator

If the Advanced Configurator product is installed and the OM: Use Configurator profile is set to Yes, selecting the Configurator Button will take you to the Configurator window. If it is set to No then the options section in line details displays. Selecting the configurator button moves you to the options section for model items.

OM: Enable Related Items and Manual Substitution

This profile enables the selection of related items in the line details region if you are using related items.

Supported Features

Defer Pricing This feature enables you to defer pricing at line level. Unit List Price, Unit Selling Price are not displayed to the user while entering the line and navigating out of the line. Order and lines are priced when the lines are saved. This feature can be controlled through the Defer Pricing checkbox that is displayed in the Lines window.

Quick Order Entry Window Line Details Options The Options region in Line Details has the following fields: Option Number, Item, Item Description, UOM, and Qty. Options and Classes are created and displayed in this window. Option Number is system generated and may not be the actual option number that the system assigns when the configuration is saved. It is a sequence number assigned for display purposes. The quantity defaults to what is entered on the mode line.

Auto Refresh If the Toggle Query Coordination checkbox is selected then the newly created option lines are displayed immediately in the lines block when the cursor is moved to the line. If it is not selected the options are saved. The lines region does not display available options immediately upon navigation to the lines; you have to manually requery to see them.

Setup

There are no mandatory setup steps necessary to enable the Quick Sales Order functionality. All existing sales orders in 11i can be queried and modified using this feature as is in the existing sales order window.

Blanket Sales Agreements

Overview

Blanket Sales Agreements are used when you have specific characteristics related to a purchasing agreement between a customer and a supplier. These characteristics include the date range of the agreement, the items included, the price of the items, the quantity of each item that the parties committed to, as well as other attributes, like freight or payment terms. Once a Blanket Sales Agreement is entered for a customer, multiple releases (shipments) against the Blanket Sales Agreement are processed over a period of time within Order Management. The order is fulfilled and billed according to the terms of the Blanket Sales Agreement. Tracking information will also be accumulated for Blanket Sales Agreements, such as,

quantity fulfilled, and dollar value fulfilled of released lines. This information is used to view status of orders executed against a Blanket Sales Agreement.

Blanket Sales Agreement functionality includes the following:

- New windows: Find Blankets, Blankets Summary, and Blanket Sales Agreements windows
- Captures agreement information
- Enforce blanket terms: price list, shipping method, payment terms, ship to, bill to, and so forth.
- Ability to track revisions to the Blanket Sales Agreements
- Ability to secure who can enter Blanket Sales Agreements
- Create simple price lists during blanket creation
- Specify defaulting rules for blanket attributes
- Support Standard, ATO items, and Kits
- Support Item Categories and all items
- Ability to create releases by Order Import and Process Order API
- View releases of Blanket Sales Agreements
- Process the releases to the Blanket Sales Agreement
- Default information from the Blanket Sales Agreement to the release
- Aggregate information about the releases and access that consolidated information from the Blanket Sales Agreement
- Integrations with Advanced Pricing and Release Management
- Effectivity dates of the agreement

Profiles

OM: Default Blanket Agreement Type

This enables the system to use a common (default) transaction type across Blanket Sales Agreements to generate unique blanket numbers. There is no default value for this profile option. This profile is seeded as available to setup at the responsibility and site level. In most business processes, the profile option can only be modified by the System Administrator. The profile is visible to the user but not updateable.

Note: If using different categories to generate a blanket number, it is critical that the sequence with different sets does not overlap.

Setup

To setup the Order Management system to enter Blanket Sales Agreements:

1. Install Order Management 11.5.9.
2. Define a Blanket agreement order type for assigning blanket numbers.
3. Optionally, set up the profile option OM: Default Blanket Agreement Type in order to default the category to generate the blanket number.

TeleSales eBusiness Center to Sales Order Window

Overview

The TeleSales eBusiness Center now enables you to view order history and create new orders. The New button on the Order tab can launch either the Sales Order window or the Quick Sales Order window, where the relevant Party, Account, Address, and Contact information entered in the eBusiness Center are carried over automatically and populated in the Sales Orders window. If an account does not yet exist in TeleSales, Order Management creates a new account. You can then enter any necessary details and process the Order.

Setup

There are no mandatory setup steps necessary to enable the functionality of this feature.

See

Oracle TeleSales Implementation Guide

Profiles

OM: Create Account Information

This profile sets permissions to create Accounts, Sites and Contacts. This profile can be modified at the Site, Application, Responsibility, and User levels. The seeded profile values are:

- All: The user is permitted to create Accounts, Account Sites, Account Contacts and related information.
- Account Site and Account Contact Only: The user is permitted to create Account Sites, Account Contacts and related information only.
- None: The user is not permitted to create any of the above.

The default value is None. The profile is visible to the user but not updateable. The profile is visible and updateable at all levels to the system administrator. The Create Account Layer API will check this profile and create the account layer only if the correct permissions are set.

OM: Sales Order Form Preference

This profile defines which sales order window is evoked from the Telesales e-business center.

Related Items and Manual Substitutions

Overview

Related Items and Manual Substitutions defines relationships between sales items which enable you to perform, in part, up-selling, manual substitution, and cross-selling of items. These item relationships are defined within Oracle Inventory. The Related Items window shows you the item relationships of the ordered item. This feature enables:

Cross-selling Enables you to suggest additional items to a customer who is placing an order.

Manual Substitution Substitution is the capability to suggest equivalent items.

Supercession This occurs when a product is replaced (superseded) by another product.

Up-selling Allows the user to suggest a better item to a customer who is placing an order.

Usability features included in this release include:

- The ability to optionally show Selling Price and Availability for Related Items.
- The ability to view the Original Ordered Item and the Relationship Type used on sales order line.
- Notification of the existence of related items by a color change on the ordered item and a message hint.
- The ability to have the Related Items window open automatically if desired.

Note : Do not use or enable this feature if you use Oracle Advanced Planning. It can cause collections and forecast consumptions to be incorrect.

Setup

You must ensure that the appropriate item relationships are set up in Oracle Inventory to enable Manual Substitution functionality.

See

Oracle Inventory Users Guide

Profile Options

OM: Enable Related Items and Manual Substitutions

This profile option enables the Related Items and Manual Substitution feature. Set to Yes, Related Items and Manual Substitution is enabled. The default value is set to No, which disables this feature.

OM: Automatically open Related Items Window

This profile option enables automatic opening of the Related Items Window from a quantity field on the Sales Order window and Large Format window. Set to Yes, the Related Items Window will automatically open. The default value is set to No, which disables this feature. This profile is viewable and updateable at all levels.

OM: View Pricing/Availability Information in Related Items

This profile option sets the detail of information displayed in the Related Items Window. Available option are Pricing Information Only, Availability Information Only, Both, None. The default value is set to None. If the Related Items Window causes a negative performance impact, this profile can turn off the display. This profile can also be used to determining if you have viewing authority for the Pricing and Availability Information on Related Items window. This profile is viewable and updateable at all levels.

Maintain Line Number on Copied Orders

Overview

The Copy Orders function in Order Management is tightly integrated with the Sales Orders window and supports multi-selection of records. In addition to copying orders it facilitates copying lines within an order or across to a new or existing order. This feature solves many functional problems, including the following:

Template Orders You can use template to place multiple orders that are very similar or identical. For example: A private Elementary School places a standard Order with a School Supplies Vendor every 2 weeks to meet its Stationery needs. You can set up a template that matches this need and create orders as required based on this template to minimize data entry time.

Creation of Return Material Authorizations When a customer returns items against an order, the customer service clerk can copy lines from the original order to create a RMA instead of entering it from scratch.

Setup

- 1. The following columns for Copied Orders should be set as follows:

Table 5–1 OE_ORDER_HEADERS

| R12 Column | Value |
|-----------------------------|--------------------------------------|
| SOURCE_DOCUMENT_ TYPE_ID | 2 |
| SOURCE_DOCUMENT_ ID | SO_HEADERS.ORIGINAL_SYSTEM_REFERENCE |

2. All Lines belonging to the Copied Orders that have their original_system_line_reference populated should have their columns set as follows:

Table 5–2 OE_ORDER_LINES

| R12 Column | Value |
|-----------------------------|--|
| SOURCE_DOCUMENT_ TYPE_ID | 2 |
| SOURCE_DOCUMENT_ ID | Select soh.original_system_reference from so_headers soh where soh.header_id = so_lines.header_id |
| SOURCE_DOCUMENT_ LINE_ID | SO_LINES.ORIGINAL_SYSTEM_LINE_REFERENCE |

Order Import

Topics covered in this chapter include the following:

- [Overview](#) on page 6-2
- [Feature Functions and Basic Instruction - What is it? How is it used?](#) on page 6-2
- [Tools/Techniques of Feature - API's, Workflow](#) on page 6-6
- [Setup Steps to Implement Order Import](#) on page 6-6
- [Loading the Import tables](#) on page 6-7
- [Actions Table](#) on page 6-9
- [IDs vs. Codes](#) on page 6-10
- [Matching Changes to Orders](#) on page 6-10
- [High Volume Order Import](#) on page 6-11

Overview

Order Import is Order Management's open interface for entering, changing or canceling orders and returns. Use Order Import to bring in orders from external systems, legacy systems, EDI, or from internal systems such as internal orders created by Oracle Purchasing to fulfill internal requisitions.

Order Import has been implemented as a set of interface tables that must be loaded with the order or return data, and a set of APIs to process that data. A concurrent program is provided which calls the APIs to initiate processing of the data. In addition, Order Import provides forms that allow you to query orders from the interface tables, make corrections or changes to that data, and re-initiate the import process. Orders that fail to be imported are retained in the tables, and can be queried and corrected using the forms. Messages are provided to give you details of why the order did not import.

Order Import calls base Order Management APIs (specifically, Process Order API) to validate and insert or update data in the base order tables, thereby insuring that consistent processing occurs.

Feature Functions and Basic Instruction - What is it? How is it used?

Order Import provides many features to ease the work of integrating order data from external and other types of system.

Importing Orders

Order Import's main task is to provide a batch-like facility for inputting large numbers of orders into Order Management in a hands-off manner. It is runnable as a concurrent request, so you can schedule it to run at specific intervals throughout the day – for example, to coincide with schedules of your feeding systems. Once orders are imported into the base Order Management tables, the order and line workflows are started. All subsequent processing, including sourcing and scheduling activities, takes place as though the order were input manually.

Validation

Order Import does not contain its own validation routines for the data. Instead, it calls the Process Orders API, which is the same API used to validate and insert orders if you are keying them through the Sales Order window. This design makes for better maintainability, as any enhancements or bug fixes done to Process Orders will immediately affect importing orders too. The Process Orders API uses Processing Constraints to evaluate whether a requested change can be made to an

order. Order Import, because it uses Process Order API, evaluates all Processing Constraints, and any constraint violations are captured and can be reviewed using the Correction Forms and the Messaging Window. Order Import has a feature that allows you to run in validate only mode, to pre-screen the orders in a batch and correct all the errors before you run the import. If an order has any errors, then the entire order will be retained in the import tables. Importing is an all-or-nothing process per order.

Correction Forms

Order Management has a set of forms you can use to review and correct data that is in the Order Import tables. They are called the Order Import Correction forms. They are accessible from the OM Menu under the Order Import menu item. They consist of a find screen followed by a series of forms where you can view and correct data. There are forms to display order headers, order lines, sales credits, price adjustments, return lot/serial numbers, and the actions table. The forms have buttons to enable you to re-validate or re-import data that you have selected. There is another button to transfer to the Message Window to display any error messages in your data import. Viewing error and warning messages about imported orders replaces the Order Import Processing Exception Report used in the R11 Order Entry version of Order Import. Most fields do not have any validation or list of values within the window, so if you key over a field to correct it, you won't know if it is good until you either validate or re-import. If you decide an order or line is in the import tables in error, you can set the Reject_Flag to Y on the Status Tab to indicate that you don't want to continue processing it. The order or line will be deleted in the next run of Order Import. See the Flags section below for more information about the Reject_Flag. This can be useful if an order is too difficult to correct via the forms. This allows you to fix it in the feeder system and re-import it, or it can be used to purge off orders that may have resulted from duplicate runs of your feeder systems.

The user interface for the Correction Form is currently not a folder window – the thinking was that if users hide columns and then those columns are the ones in error, it would be difficult for the user to make the necessary corrections. There is an enhancement request logged to make these forms folder-enabled, and that will be done when the work can be scheduled. In addition, the forms are not currently multi-select enabled for re-validating or re-importing using the button. There is an enhancement pending to enable multi-select. The data from the header and lines import tables is presented in forms with the data organized logically onto various tabs. The other forms (discounts, sales credits and actions) are single-tab forms. Screen shots of the Find screen and the Orders window are contained in the *Oracle Order Management User's Guide*.

Booking Orders via Order Import

Import orders and book them through Order Import. If the order fails booking validation, the order is still imported, but is left in the Entered state. The Messages Window can be used to see why the order failed booking or you can just attempt to Book using the Book button, and then errors will be displayed. To indicate that you want the order to be booked, you must load the actions interface table OE_ACTIONS_IFACE_ALL with a value of BOOK_ORDER in the OPERATION_CODE column to import orders in a booked status. See the section below on the Actions table for more information.

Item Cross Referencing

Customer item numbers or UPC numbers can be entered in Order Import the same way as manually created orders, so long as you have the cross-references and cross reference types set up in advance of running order import. In the interface tables you need to put the 'item ordered' into the column named CUSTOMER_ITEM_NAME and if you know what kind of item number it is (customer, inventory item or one of the generic cross references), you can put its type into CUSTOMER_ITEM_ID_TYPE.

Changes and Cancellations

Input order changes and cancellations to existing orders via the Order Import open interface tables. There is a column in each of the interface tables called OPERATION_CODE where you put INSERT, UPDATE or DELETE. Null is equivalent to INSERT. If you want to make changes, you must specify an OPERATION_CODE of UPDATE. To cancel a line, use an operation of UPDATE and then make the ordered quantity = 0. To partially cancel, change the ordered quantity to the new quantity you want to remain on the line. To cancel an order in its entirety, use an operation of UPDATE at the header, and then set the CANCEL-FLAG to Y. All order changes and cancellations are subject to the Processing Constraints you defined.

Returns

Import returns just like you import orders, by choosing an order type that supports return line types. You can also import mixed orders – those are orders that have some outbound lines and also some inbound (return) lines. The path that the line follows is determined by the workflow attached to the line type. You might import returns or return lines from legacy systems, or from other order entry systems you might be running. There is a separate interface table where you can import anticipated lot/serial numbers – this table is only used for return lines.

Notes/Attachments

Orders that are input using Order Import will get rule-based attachments automatically applied based on the setting of the profile option *OM: Apply Automatic Attachments*. If you have this profile option set to NO, you can still apply automatic attachments on an order by order basis by using the Actions Interface table – see the discussion of that table below. There is at this time no way to import note texts, or to create attachments via an open interface.

Pricing

There are two ways to price orders being imported. You can let the system calculate the price, or you can populate the price fields in the lines interface table with the price you want to charge, and also populate the price-adjustment interface tables with price adjustments that result in that net price. You indicate which you want to use by setting a value in `CALCULATE_PRICE_FLAG` in the lines interface table. If the calculate price flag is Y, the system will ignore any pricing values loaded into the price fields and will calculate the price using the pricing engine. If the calculate price flag is N, you must populate unit list price, unit net price, and any price adjustments in the interface tables to account for the difference between list and net.

Pricing and Payment Terms Validation

A common requirement from EDI customers is the ability to validate the price and payment terms that a customer sends in against what the system determines. EDI customers do not typically accept any price or terms that the customer sends in, but they need to keep track of what the customer said they thought they should get. The Customer Service Representative usually contacts the customer to resolve any discrepancies. For example, a customer may send in one price that they have been quoted by a salesperson, which assumed they received some discount. Perhaps the discount had expired by the time the order was imported. This results in a discrepancy that a CSR needs to investigate.

Order Import supports this requirement by letting you populate two attributes in the order lines interface table, `CUSTOMER_ITEM_NET_PRICE` and `CUSTOMER_PAYMENT_TERM`. If either of these columns contain data, Order Import compares the system-determined price or payment terms to these columns, and raises a warning if there is a difference. It will still import the order as long as there are no other errors in the order. In both cases, the system-determined value is what is used to process the order, and the customer value is retained on the order line in the base sales order tables for reference purposes.

Following is a table with examples of what would happen in different cases of the customer price and the system price – in addition, it shows how the Calculate Price Flag affects the process:

Table 6–1 Examples of Customer Price and the System Price

| Calculate Price Flag | Customer Provided Price | System Calculated Price | Action |
|----------------------|-------------------------|-------------------------|---|
| N | 20 | - | Accept customer price. |
| Y | 20 | 20 | Accept customer price. (System = Customer). |
| Y | 20 | 10 | Accept customer price. (System < Customer). |
| Y | 20 | 30 | Don't accept Customer price. Report the error. (System > Customer). |

Tools/Techniques of Feature - API's, Workflow

Order Import uses the Process Orders API to validate and process order data in the interface tables. For more information on open interfaces, see the *Oracle Manufacturing APIs and Open Interfaces Manual*.

There are no special workflow considerations for Order Import.

Setup Steps to Implement Order Import

There is only one special setup for Order Import; otherwise, the same setup that you need to perform to manually key orders must be in place before you can import orders.

Order Import Sources

Set up the names of the sources from which you intend to import orders. There is a special setup window in Order Management allows you to define the name and description for your source. Import Source is a parameter you can use when you submit the Order Import concurrent program, and it is also one of the queriable fields on the Find window of the Order Import Correction window. The Import Source is carried in the order header also, so you can identify the origin of the order. Seeded Order Import sources include EDI and Internal Orders.

The **Item Validation Org** parameter for the operating unit of the user running Order Import determines the organization used for validating items and bill of material structures. Item Validation Org is an Order Management parameter that is set per operating unit.

Loading the Import tables

To import orders, you need some means to load the Order Import tables. In most cases, you will develop a program or script using SQL-loader or some other programming language to convert data from your feeder system into the standard data format that Order Import is expecting.

Oracle Purchasing contains such a program (Create Internal Sales Order) that takes data from the Purchasing schema for internal requisitions and loads the Order Import tables. Similarly, the eCommerce Gateway product provides a program (Purchase Order Inbound) that loads the import tables for the Inbound Purchase Order EDI transaction set. You can take a look at that code to guide you in writing your own program to load the tables.

It is advisable that you set up Defaulting Rules in Order Management that will default as much of the order and line information as possible for your environment, thereby reducing the amount of data that would need to be populated into the import tables.

There are certain columns and tables in the set of import tables whose function is not self-evident. Here is some additional information about these attributes to help you be successful in loading the tables properly.

Flags

Several flags in the interface tables of Order Management affect Order Import processing. Valid values of these flags are Y, N and null. Null means different things depending on the particular flag. These flags are viewable and updateable from the Status Tab of both the Order Header and Lines forms of the Order Import Correction Forms.

Force Apply Flag.(used for Change transactions only) The Force Apply flag is used to indicate that you want to apply a Change transaction even though the change sequence numbers are out of order. Default is N, and a null value is equivalent to N. Typically a user would set this flag to Y (checked in the UI) if they determine that a set of changes should be applied regardless of the change sequence. See the section below for more information on **Change Sequence Numbers** and how they are used.

This flag is at the header level only.

Closed Flag The Closed flag is used to indicate the line or order being imported should be imported in a Closed state. You might want to import a closed order so your historical data is all in one place, or to provide reference data for Returns. Default for this flag is N, and a null value is equivalent to N.

This flag is at both the header and the line level.

Canceled Flag The Canceled flag is typically used to indicate that the line or order being imported should be imported in a Canceled state. Default is N, and a null value is equivalent to N.

This flag is at both the header and the line level.

Reject Flag There may be orders or order lines you have determined you no longer want to attempt to process further. Using the Order Import Corrections window, you can select an order or line you no longer wish to process, go to the STATUS tab, and select the Rejected checkbox. Rejected orders or rejected order lines are *Deleted* during the next execution of the Order Import program. Default is N, and a null value is equivalent to N.

This flag is at both the header and the line level.

ERROR_FLAG The error flag is set on by the Order Import process whenever an error is encountered during the validation process. Default is N, and a null value is equivalent to N.

This flag is at both the header and the line level.

READY_FLAG The ready flag indicates that the record will be processed in the Order Import Process. Default is Y, and a null value is equivalent to Y. If the ready flag is N, the order will not be looked at when Order Import is run.

This flag is at the header level.

Validate Mode Parameter in Concurrent Manager There is a validate mode parameter you can set when you submit Order Import to run through the concurrent manager. This parameter tells the process to only validate the records, and not to process valid records any further. Base Order Management tables will not have records inserted, updated, or deleted.

Table 6–2 Parameters

| (Only) | | |
|-------------------|------------------|---|
| Validate | | |
| READY_FLAG | Parameter | Processing |
| N | Y | Record is not processed |
| N | N | Record is not processed |
| Y or NULL | Y | Process to Validate Only |
| Y or NULL | N | Process to Insert/Update/Delete in Base Table |

Actions Table

One of the Order Management interface tables is the Actions table. Its purpose is to allow you to indicate what ‘actions’ you want to be done to the order, once it has been written to the Order Management base tables. It is the Order Import equivalent of a user pressing the Action button on the Sales Order window after you have entered an order. Load the action name into the OPERATION_CODE column of this table, and populate other data as needed, and then Process Orders will execute that action if the order import is successful. You can hold or release an order or line from hold using this method, and this is how you book an order through Order Import, too. Other actions you can perform are Apply Automatic Attachments and Delink Config Item and Match & Reserve a configured item. Here is the character string you need to populate in OPERATION_CODE of the OE_ACTIONS_INTERFACE table and other data you need to put in the table to achieve each action.

Table 6–3 Actions Table

| ACTION | OPERATION_CODE | OTHER DATA |
|-----------------------------|-----------------------|--|
| Apply Automatic Attachments | AUTOMATIC_ATCHMT | none |
| Apply a Hold | APPLY_HOLD | hold_id, hold_type_code, hold_type_id, comments (optional), hold_until_date (optional) |
| Release a Hold | RELEASE_HOLD | hold_id, hold_type_code, hold_type_id, comments (optional), release_reason_code |

Table 6–3 Actions Table

| ACTION | OPERATION_CODE | OTHER DATA |
|---|-----------------------|-------------------|
| Book the Order | BOOK_ORDER | none |
| Delink the Config Item | DELINK_CONFIG | none |
| Match and Reserve a configuration item for an ATO model | MATCH_AND_RESERVE | none |

IDs vs. Codes

Most attributes in the interface tables have two flavors – a code or name and an ID. You may choose to populate either the code or the ID for each attribute. If you populate IDs, performance will be improved. If you populate both an ID and a code for an attribute, the ID will be used and the value in the code field will be ignored.

Matching Changes to Orders

When you send in changes to orders using Order Import, you need a way to tell Order Import what order or line you are changing. Your feeding system most likely doesn't know the Order Management Order Number. If it does, you can populate the interface column ORDER_NUMBER to locate your order. There are a group of columns in the interface tables that are carried over into the Sales Order tables, and these are used to locate the order to be changed.

For Order level changes, the following fields need to match between the change transaction in the interface tables and the existing order in the Sales Order tables:

- ORIG_SYS_DOCUMENT_REF - note, this is often the customer's purchase order number
- ORDER_SOURCE_ID

For Line level changes, the following fields need to match between the change transaction in the interface tables and the existing order in the Sales Order tables:

- ORIG_SYS_DOCUMENT_REF - note, this is often the Customer's Purchase Order Number
- ORDER_SOURCE_ID
- ORIG_SYS_LINE_REF - note, this is often the customer's purchase order line Number concatenated with the shipment number or current customer request date.

If the existing order or line do not have these fields populated, you will not be able to make changes to them using Order Import.

Change Sequence Numbers

Change sequence numbers are a way to control the sequence in which a group of changes is applied to an order. The use of change sequence numbers in Order Import is optional. Change sequence numbers are most frequently used by the EDI Purchase Order Change transaction, but you can also use them to control the order of application of changes, in the event you are importing changes from a legacy or third-party system. For more information about how change sequence numbers work, see the *Oracle Order Management User's Guide*.

High Volume Order Import

Overview

High Volume Order Import improves the performance of order import for high volume users who require basic processing.

High Volume Order Processing (HVOP) takes advantage of the high-volume processing features introduced with Oracle8. HVOP uses memory caching extensively and it bulk enables several processing operations.

Certain features have not been bulk enabled for High Volume Order Import, and are not optimized in the initial release of HVOP. These features are:

- Workflow Integration
- Scheduling via Workflow (Auto-Scheduling is Bulk Enabled)
- Ship Interface
- Credit checking is also supported, if using the pre-calculated exposure functionality. Credit-checking in real time is not supported.
- Both Basic and Advanced Pricing are supported. Pricing attributes, coupons, and ask-for promotions are not supported.

Supported Operations

You can perform high-volume order processing on orders that are created via Order Import (this includes EDI orders). High-volume order processing supports creation

of supported order entities, including creation of the entire order, i.e., Order Header, Order Lines, Order/Line Price Adjustments.

Unsupported Features

The following is a list of features that are not supported via high-volume order processing.

- Add customers
- Any action request other than booking
- ATO items
- Audit trail
- Automatic attachments
- Commitments
- Configurations other than kits
- Creation of order lines and associated adjustments on existing orders
- Credit card orders
- Drop-shipments
- Gapless order numbering
- Insert-based constraints
- Internal orders
- iPayment integration
- Pricing attributes, coupons, and ask-for promotions
- Process manufacturing
- Reservations
- Returns
- Service items
- Sets - arrival, ship, fulfillment
- Tax calculation before invoicing
- Updates/deletes

- Use of defaulting framework for specifying defaulting sources and the hierarchy in which they are to be used

If data for these unsupported features is passed in during high-volume order processing—for example, commitment Id is passed in, credit card information is Supported Operations passed in, source code of external is passed in—an error message is logged. The error(s) are included in the error count displayed in the output file. If you need these features, use standard Order Import.

Types of Items

You can process the following types of items on high-volume orders.

- Standard, non-ATO items
- Kits and included items

Booking

Orders created using high-volume order processing with the Book Order request are validated for booking and created as booked. Pricing is based on booking events. Discounts tied to the booking phase are evaluated for such orders and holds are honored.

Credit checking against pre-calculated exposure is currently supported, but not optimized.

Auto-Scheduling

Auto-scheduling is optimized for high-volume order processing. Regular scheduling via Workflow can be performed, but it is not optimized for high-volume order processing.

Auto-scheduling does not currently support the reservation time fence. A warning message will be populated when the schedule date falls within the reservation time fence. In addition, the lines are scheduled but are not reserved.

Note: High-volume import supports auto-scheduling for both supported item types: standard, non-ATO items and kit with its included items. Please note that regular import supports auto-scheduling only for standard, non-ATO items.

Sales Credit

The software automatically creates a 100% sales credit for the sales person on the order. For the order line, if sales person matches the order header, then there is no sales credit created at the line level. If sales person is different, then it will generate 100% sales credit for the sales person on the line and 100% sales credit for sales person on order header (this is how regular order entry is done). For high-volume order processing, the data in the sales credit interface tables is not processed.

Holds Processing

You can evaluate hold sources and automatically put the applicable orders/order lines on hold.

Price Adjustments

High-volume order import supports only manual price adjustments of the type: Discount, Freight Charge, Surcharge and Price Break Header. There is no such restriction on automatic adjustments. All types of automatic adjustments can be defined and applied if order is priced during high-volume import.

Tax Calculation

There is no tax calculation during high volume order import. Order lines imported in this mode will not display tax values. Therefore, you can only use line transaction types with a receivable transaction type that does not require tax calculation or order transaction types in which tax calculation is performed at the point of invoicing.

Pricing

Both basic and advanced pricing are supported but not optimized. Note that pricing attributes, coupons, and ask-for promotions are not supported. For more on sourcing pricing attributes from flexfields using High Volume Order Processing, see the *Oracle Advanced Pricing Implementation Manual*.

Defaulting

Orders created using high-volume order processing will undergo defaulting for attributes that the customer cannot know and hence cannot send. These attributes are defaulted using a fixed hierarchy of two or three sources. These requirements are based on EDI needs.

Certain key attributes that are required for successfully processing the order are not defaulted regardless of how the Defaulting Enabled? parameter is set. This is detailed in the following tables.

Bill-to and payment terms are defaulted from the header, but not at the line level. This is done to simplify credit checking and this means that orders that have lines that have a bill-to or payment term that is different from the header will be errored out.

Tables 1 and 2 lists the individual attributes that are defaulted and the fixed source and hierarchy used for each attribute.

Defaulting Sources for Order Header

- Agreement: To ensure that pricing attributes like payment term are identical to those set up on the agreement.
- Invoice To: For invoicing/pricing attributes like price list, payment term, and order type.
- Ship To: For shipping attributes like FOB, shipping method, and order type.
- Order Type: Primary default source as it can be set up to default most of the attributes on the order.

Defaulting Sources for Order Line

- Item: Certain defaults like primary UOM, and warehouse are retrieved from item first.
- Ship To: For shipping attributes like FOB, shipping method, and source type.
- Order Header: Primary default source - also an indirect source when attributes need to default from Invoice To, Agreement, or Order Type.

Any other sources for Order Line are not supported.

You can turn off defaulting in case the customer is providing all the required attributes. This is implemented using the Defaulting Enabled? parameter.

Note: High-volume order processing uses a different defaulting mechanism than the standard Order Management Defaulting Framework to default attributes. It defaults from a limited number of source attributes using a fixed hierarchy. However, once the order has been created, any updates to attributes that result in the clearing and re-defaulting of dependent attributes will use the rules set up in the standard Order Management Defaulting Framework. Even though the fixed defaulting hierarchies that the bulk process uses reflect in most cases the seeded rules in the standard Defaulting Framework, you might occasionally see different values being defaulted in case of an update.

Defaulting Details

High-volume order processing does some limited defaulting if the Defaulting Enabled? parameter is set to Yes. The following tables list the attributes that will be defaulted and the sources they will be defaulted from.

Note: Attributes that are set to No for the Defaulting Enabled in High-Volume Order Processing? column in the following tables will not be defaulted regardless of how the Defaulting Enabled? parameter is set. For example, Ship To, Invoice To, Ship To Contact, Invoice To Contact etc. will not be defaulted on the order header. Therefore, users should supply these values on the interface table if needed.

The fields marked Yes in the Required? column in the following tables are mandatory fields. Depending on the Defaulting Enabled? parameter value, you may need to supply values for some or all of these fields in the interface tables. For example, on the order header, you should always populate Ship To and Invoice To in interface tables as they are never defaulted in high-volume order processing. However, Tax Exempt values should be supplied only if the Defaulting Enabled? parameter is set to No. If Defaulting Enabled? is set to Yes, then a constant value of Standard is supplied by the program.

In addition, other non-mandatory fields that are defaulted in regular order import should be supplied in the interface tables for bulk import if orders are to be created with values in these fields.

Table 6–4 Defaulting for Order Header Attributes

| Defaultable Attribute | Defaulting Enabled in High-Volume Order Processing | Defaulting Source in High-Volume Order Processing | Required? |
|------------------------------|---|--|------------------------|
| AccountingRule | Yes | 1. Agreement 2. Order Type | No |
| Agreement | No | n/a | No |
| Contact | No | n/a | No |
| Conversion Rate Date | No | n/a | No |
| ConversionType | Yes | Order Type | No |
| Credit Card ExpirationDate | No | n/a | No |
| Credit Card Holder Name | No | n/a | No |
| Credit Card Number | No | n/a | No |
| Currency | No | n/a | Yes, on entered orders |
| Customer | No | n/a | Yes, on booked orders |
| CustomerPO | No | n/a | No |
| DeliverToContact | No | n/a | No |
| DeliverToOrg | No | n/a | No |
| Demand Class | Yes | 1. Ship To 2. Order Type | No |
| Earliest Schedule Limit | No | n/a | No |
| FOBPoint | Yes | 1. Ship To 2. Order Type | No |
| FreightTerms | Yes | 1. Ship To 2. Order Type | No |

Table 6–4 Defaulting for Order Header Attributes

| Defaultable Attribute | Defaulting Enabled in High-Volume Order Processing | Defaulting Source in High-Volume Order Processing | Required? |
|------------------------------|---|--|------------------------|
| Invoice To | No | n/a | Yes, on booked orders |
| InvoiceToContact | No | n/a | No |
| InvoicingRule | Yes | 1. Agreement 2. Order Type | No |
| Latest Schedule Limit | Yes | Ship To | No |
| Order Date Type Code | Yes | Ship To | No |
| OrderType | Yes | 1. Invoice To 2. Ship To | Yes, on entered orders |
| OrderedDate | Yes | Sysdate | Yes, on booked orders |
| PackingInstructions | No | n/a | No |
| PaymentTerm | Yes | 1. Agreement 2. Invoice To | Yes, on booked orders |
| Price List | Yes | 1 Agreement 2. Invoice To | Yes, on booked orders |
| PricingDate | Yes | Sysdate | |
| RequestDate | Yes | Sysdate | |
| SalesChannel | No | n/a | No |
| Salesperson | No | n/a | Yes, on booked orders |
| Ship To | No | n/a | Yes, on booked orders |
| ShipToContact | No | n/a | No |
| Ship Tolerance Above | Yes | Ship To | No |
| Ship Tolerance Below | Yes | Ship To | No |

Table 6–4 Defaulting for Order Header Attributes

| Defaultable Attribute | Defaulting Enabled in High-Volume Order Processing | Defaulting Source in High-Volume Order Processing | Required? |
|------------------------------|---|--|-----------------------|
| ShipmentPriority | Yes | Order Type | No |
| Shipping Instructions | No | n/a | No |
| ShippingMethod | Yes | 1. Ship To 2. Order Type | No |
| TaxExempt | Yes | Constant: Standard | Yes, on booked orders |
| Tax Exempt Number | No | n/a | No |
| TaxExemptReason | No | n/a | No |
| Warehouse | Yes | 1. Ship To 2. Order Type | No |

The next table shows the Line Attributes that will be defaulted and the sources they will be defaulted from.

Table 6–5 Defaulting for Order Line Attributes

| Defaultable Attribute | Defaulting Enabled in High-Volume Order Processing | Defaulting Sources in High-Volume Order Processing | Required? |
|------------------------------|---|---|------------------|
| AccountingRule | Yes | 1. Item 2. Order Header | No |
| Agreement | No | n/a | No |
| CalculatePrice | Yes | 1. Constant = Yes | No |
| Commitment | No | n/a | No |
| Customer PO | No | n/a | No |
| Customer PO Line Number | No | n/a | No |
| DeliverToContact | No | n/a | No |
| DeliverToOrg | No | n/a | No |

Table 6–5 Defaulting for Order Line Attributes

| Defaultable Attribute | Defaulting Enabled in High-Volume Order Processing | Defaulting Sources in High-Volume Order Processing | Required? |
|------------------------------|---|---|-----------------------|
| DemandClass | Yes | 1. Ship To 2. Order Header | No |
| DepPlanRequired | No | n/a | No |
| Earliest Acceptable Date | No | n/a | No |
| FOBPoint | Yes | 1. Ship To 2. Order Header | No |
| FreightTerms | Yes | 1. Ship To 2. Order Header | No |
| Grade | No | n/a | No |
| InvoiceTo | Yes | Order Header | Yes, on booked lines |
| InvoiceToContact | No | n/a | No |
| InvoicingRule | Yes | 1. Item 2. Order Header | No |
| ItemIdentifierType | Yes | Ship To | No |
| ItemRevision | No | n/a | No |
| Latest Acceptable Date | No | n/a | No |
| Line Type | Yes | Order Type.Outbound Line Type (only Regular lines supported in Bulk!) | Yes, on entered lines |
| Order Quantity UOM | Yes | Item.Primary UOM | Yes, on booked lines |
| OrderedQuantity | No | n/a | Yes, on booked lines |
| PackingInstructions | No | n/a | No |
| PaymentTerm | Yes | Order Header | Yes, on booked lines |

Table 6–5 Defaulting for Order Line Attributes

| Defaultable Attribute | Defaulting Enabled in High-Volume Order Processing | Defaulting Sources in High-Volume Order Processing | Required? |
|------------------------------|---|---|----------------------|
| Price List | Yes | Order Header | Yes, on booked lines |
| PricingDate | Yes | Sysdate | No |
| Promise Date | No | n/a | No |
| Request Date | Yes | Sysdate | No |
| Return Reason | No | n/a | No |
| Salesperson | Yes | Order Header | No |
| Schedule Arrival Date | No | n/a | No |
| ScheduleShipDate | No | n/a | No |
| SecondaryQuantity | No | n/a | No |
| SecondaryUOM | No | n/a | No |
| ServicePeriod | No | n/a | No |
| Service Reference Type Code | No | n/a | No |
| ServiceStartDate | No | n/a | No |
| Ship To | Yes | Order Header | Yes, on booked lines |
| ShipToContact | No | n/a | No |
| Ship Tolerance Above | Yes | 1. Item 2. Ship To 3. Order Header | No |
| Ship Tolerance Below | Yes | 1. Item 2. Ship To 3. Order Header | No |
| ShipmentPriority | Yes | Order Header | No |
| Shipping Instructions | No | n/a | No |

Table 6–5 Defaulting for Order Line Attributes

| Defaultable Attribute | Defaulting Enabled in High-Volume Order Processing | Defaulting Sources in High-Volume Order Processing | Required? |
|------------------------------|---|---|----------------------|
| ShippingMethod | Yes | 1. Ship To 2. Order Header | No |
| SourceType | Yes | Constant = INTERNAL | No |
| Subinventory | No | n/a | No |
| Tax Code | No | n/a | No |
| Tax Date | No | n/a | No |
| TaxExempt | Yes | Order Header | Yes, on booked lines |
| Tax Exempt Number | No | n/a | No |
| TaxExemptReason | No | n/a | No |
| Warehouse | Yes | 1. Item 2. Ship To 3. Order Header | No |

Value to ID

If value fields are supplied on interface tables, high-volume import converts them to IDs and updates the ID fields directly on interface tables. If there is a value in the ID field, it takes precedence, and corresponding value fields are not used in the processing at all.

Note: If you decide to correct some value fields on interface tables because the order failed to import, you must clear the corresponding ID fields on interface table. For example, if the ship to location field is corrected, please check that ship to ID value is null.

Error Handling

The error messages output file identifies the following types of errors:

- Validation errors
- Errors for unsupported features
- Unexpected errors

The output file also identifies order references to identify which orders failed to import. Note that in the case of validation errors or errors for unsupported features, one or more orders may fail to import while others import successfully. In the event of an unexpected error (memory errors, unable to extend tablespace, etc.), all orders fail to import. When an unexpected error occurs, all records in the batch are marked with an error. The errors must be cleared before submitting the records again for high volume order processing.

The following types of errors are not identified in the error count:

- Updates
- Deletes
- Manual pricing attributes passed on interface tables
- Manual sales credits passed on interface tables
- Manual reservations passed on interface tables
- Action request other than booking

Setup

To import high volume orders:

1. Set up the interface tables.
2. Evaluate if simplified defaulting rules are sufficient. If so, use them to supply the required values.
3. If defaulting rules are not sufficient, turn them off and provide the attribute values directly in the interface tables.

Order Information Portal

Topics covered in this chapter include the following:

- [Overview](#) on page 7-2
- [Implementation Requirements](#) on page 7-2
- [Oracle Applications Framework \(OAF\) Overview](#) on page 7-4
- [OA Personalization Framework](#) on page 7-5
- [Personalization Levels](#) on page 7-6
- [General Properties](#) on page 7-9
- [Column or Attribute Properties](#) on page 7-10
- [Search Query to Filter Data in Table](#) on page 7-11
- [Saving Your Personalized View](#) on page 7-12
- [Advanced Settings](#) on page 7-12
- [Adding New Items With OA Personalization Framework](#) on page 7-14
- [Add a New Region Item](#) on page 7-14
- [Creating User-Level Personalizations](#) on page 7-16

Overview

The purpose of Order Information is to provide an industry leading and competitively differentiating self-service order management offering. To improve the accessibility of service to customers, improve customer satisfaction and limit expensive calls to the support center.

The View Sales Orders Inquiry window allows you to search for Sales Orders and view their details. It also contains links to related information like deliveries, AR and Quality. Order Information uses Customization, which is a useful tool for any self-service user. For example, Sales representatives may define various views on each of the customers they are responsible. A warehouse manager may want to only look at recently shipped deliveries. Such views can be defaulted for each user.

Order Information can be used for internal and external users. View for the external user is secured by Customer, which you can assign. User can be assigned in the Define users window in System Administration responsibility in Oracle Applications. A user without a customer assigned to it is treated as an internal customer.

Implementation Requirements

You can use a browser to access the Order Information web page with a sign on and password. Request an account through your system administrator.

See

Oracle Self Service Web Applications Implementation Manual

Overview and the Oracle Applications System Administrators Guide

Profiles

OM: Customer Service Feedback This profile option indicates the Customer contact that a workflow notification will be sent to for RMA requests entered via Order Information. The values for the LOV for this profile option is all user-defined to Oracle Applications via the System Administrator responsibility having no customer contacts.

The default for this profile option is Null and optional.

OM: Customer Service Report Defect This profile option indicates the Customer contact that will receive a workflow notification for any Report Defects submitted via Order Information. The values for the LOV for this profile option is all users

defined to Oracle Applications via the System Administrator responsibility having no customer contacts.

The default for this profile option is Null and optional.

OM: Records on Summary Page for External Users This profile option indicates the default query (for external users) called when a user requests either the Orders or Delivery summary pages available from the Order Information Portal. Valid values for this profile option are Yes or No. This profile is used for a performance benefit for the queries.

Setup

To setup an external user:

1. Create a Customer Contact. If a Customer Contact is already entered, move to the next step.
2. Navigate to N: Order Management Responsibility > Customer > Customer Standard. Query for the customer you want to enter a contact for.
3. Go to contact tab and enter the contact information. Information needs to be added is Last Name, First Name, Title and job.
4. Commit the record.
5. Navigate to N: System Administrator > Define User form, Customer Field. The external user can be set up by assigning a customer contact to the user in the Customer Field. You will only see the data of that customer.
6. Select the customer contact from the LOV for Customer. Flag, Yes from the LOV.

The Oracle Applications Framework (OA Framework) is designed to provide rich and upgradable personalization and extensibility capabilities. These capabilities are largely due to its declarative architecture and its underlying object-oriented implementation.

To better understand these capabilities, you should be aware of the distinctions between personalization and extensibility. Personalization refers to the ability to declaratively tailor the following to suit a business need or user preference:

Oracle Applications Framework (OAF) Overview

Oracle Applications Framework (OA Framework) is designed to provide rich and upgradable personalization and extensibility capabilities. To better understand these capabilities, you should be aware of the distinctions between personalization and extensibility.

Personalization refers to the ability to declaratively tailor the following to suit a business need or user preference:

- Look and feel of the user interface (UI)
- Layout of the UI
- Visibility of built-in content

Extensibility, on the other hand, refers to the ability to extend the functionality of an application, beyond what can be done through personalization, such as:

- Adding new content or business logic
- Extending or overriding existing business logic

Personalizing OA Framework Applications

There are many aspects of OA Framework applications that system administrators, developers and end-users can personalize.

Menus and Responsibilities

You can use the Menu and Responsibility forms to personalize and maintain security for Oracle Self-Service Web Applications. You can use the forms to assign specific responsibilities to your users and designate the menus that are available to the users of a given responsibility.

See

Managing Oracle Applications Security, Oracle Applications System Administrator's Guide

FND Messages and Lookups

You can similarly use the Messages and Lookups forms to modify existing, or define new messages and lookups, respectively. For example, you may have a need to create additional messages for display within an application that is pertinent to

your users or you may want to add new lookup values to a lookup type that are applicable to your site.

See

Message Dictionary, Oracle Applications Developer's Guide and Application Utilities Lookups and Application Object Library Lookups in the Oracle Applications Developer's Guide

UI Definition Overlays and Saved Views Via the OA Personalization Framework

Finally, you can use the functionality of OA Personalization Framework to personalize the UI of an application page. Administrators can create personalizations that overlay the existing UI and are targeted to specific audiences. End-users can create personalizations and save them as personalized views from which they can choose to display as the need arises.

OA Personalization Framework

OA Framework includes the OA Personalization Framework which allows you to personalize your user interface (UI) of Oracle Self-Service Web Applications without modifying any underlying code. Personalizing the appearance of or the data displayed in an Oracle Self-Service Web Application page is as easy as changing your web browser preferences.

All personalizations you make through the OA Personalization Framework are added on top of the base product meta data at runtime. These personalizations never overwrite the existing base product UI and are therefore preserved during upgrades and patches and can also be translated. This means you can create your personalizations on a test system first and easily load your finalized personalizations to your production system with little interruption.

Common types of personalizations you can accomplish with OA Personalization Framework:

- Change the prompt for a field or other text on a page
- Hide or show a field on a page
- Reorder fields or items on a page
- Restrict data that a user can access
- Add new buttons, links, text items, images, etc.
- Restrict query results in a table

With OA Personalization Framework, your personalizations are reflected immediately on the page.

Personalization Levels

OA Personalization Framework supports end-users as well as localization, verticalization, and customization teams in their efforts to tailor self-service web applications to different users. OA Personalization Framework accomplishes this by allowing you to make personalizations at distinct levels so that you may target those personalizations to specific audiences.

There are different personalization levels available from the administrative stand-point: Localization, Site, Organization, Responsibility, and Admin-Seeded User. When you make personalizations at any of these levels, the personalizations are available only to the audience defined by that level. Since personalizations should only be made at these levels by a system administrator, these are collectively referred to as Administrator-level (or Admin-level) personalizations. Admin-level personalizations can be performed on any component in a page.

User or Portlet-level personalizations, on the other hand, can only be made to certain tables in query regions or portlets. User or Portlet-level personalizations can be made directly by an end-user and are visible only to that end-user, hence they are collectively referred to as End User-level personalizations.

Admin-Seeded User-Level

As an administrator you may want to create some personalizations that are available to all your users and allow your users to choose whether they want to use those personalizations. You can accomplish this by creating an Admin-seeded user-Level personalization.

You can only make Admin-seeded user-level personalizations on tables—including hierarchy tables—in a Query region. These personalizations get seeded into each user's Personal Table Views page, so the user can choose which view to display.

User Level

As an end-user, you can personalize only certain tables in query regions and the personalizations you make affect no one else. Each user can save multiple sets of personalizations per page region. A saved set of personalizations is also known as a personalized view and can be selected and applied from the View Personalizations list.

The personalizations you make at the various levels are cumulative. The personalization levels are ordered as follows, from lowest to highest: User, Portlet, Seeded-User, Responsibility, Org, Site, Localization, and Function. Personalizations made at lower levels take precedence over personalizations made at higher levels.

Profile Options Required By the OA Personalization Framework

Two system profile options affect the behavior of the OA Personalization Framework:

Personalize Self-Service Defn FND_CUSTOM_OA_DEFINITION

Set this profile option to Yes or No at the user level for an administrator or at the responsibility level for the system administrator. When you set this profile option to Yes, and log on as an Admin-level user or responsibility:

- A global Personalize button appears on each self-service web application page. When you select the global Personalize button on any page, the personalization user interface prompts you for the administrative level at which you wish to create your personalizations. A navigation tree then lets you navigate to the region or nested region to personalize.
- Personalize Region links appear for every personalizable region on each self-service web application page. When you select a Personalize Region link, the personalization user interface first prompts you for the administrative level at which you wish to create your personalization, then takes you directly to the page to personalize.

You can choose the Personalize button or Personalize Region links to create your personalizations.

Disable Self-Service Personal FND_DISABLE_OA_CUSTOMIZATIONS

You can set this profile option to Yes or No at the site or application level. If this system profile option is set to Yes, any personalizations you make, regardless of the level at which you make the personalizations, will not be applied. Only the original base definition of each self-service web application page is ever displayed.

Admin-Level Personalizations

To Personalize a Region at an Admin level:

1. Sign-on to Oracle Self-Service Web Applications as a user who has Admin-level personalization access.

2. Select a responsibility.
3. Navigate to the application page that contains the region you wish to personalize.
4. Choose the Personalize... link above the region you wish to personalize or select the Personalize Region global button.

Note: If the region is a table, the Personalize Region link appears below the table.

Note: If you wish to create an Admin-seeded user-level personalization for a table or hierarchy table in a Query region, select the Personalize Region link below the table. Do not use the Personalize Region global button, as this eventually requires you to drill through the entire region hierarchy tree, which is not supported when you personalize at the Admin-seeded user-level.

5. In the Personalization Level field, select the administrative level at which you wish to personalize the region.

Note: If you wish to create an Admin-seeded user-level personalization, select the value User in the Personalization Level field. Note that you can only create seeded user-level personalizations on tables or hierarchy tables within a query region.

6. On the next page, enter a value appropriate for the Personalization level you selected. The Site and User levels do not require any value as the personalization applies to all users of the current site. Other levels, such as Responsibility or Function, for example, require a specific responsibility or function name, respectively.
7. If you initially selected the Personalize Region link for a specific region, the Create View or Update View page for that region should appear. Use the Create View or Update View page to create a new view or update the existing personalized view of the region.

8. If you initially selected the global Personalize Region button, a navigation tree appears to the left of the Create View or Update View page. The tree displays the hierarchy of all the regions that make up the current application page and allows you to navigate to any region within the page. Select the region you wish to personalize from the navigation tree to display the Create View or Update View page for that region.
9. If you selected to personalize a table (or hierarchy table) within a query region at the User level, a list of available seeded views for that table region appears in the Personal Table Views page. You may select one of these views to edit in the Update View page. You may also select the Create View button to create a new seeded user-level view. The new seeded user-level personalization is later listed in the Personal Table Views region.

Create/Update View Page

The Create View page is identical to the Update View page, except that the fields in the latter page are pre-populated with settings from a prior personalization.

Attention: Although a region may be personalizable, not all region items in a region are personalizable. Each region item in a region has an ADMIN_CUSTOMIZABLE property associated with it. If the property is set to false by the developer of the region, the region item is not personalizable at the Admin level.

Note: In OA Framework 5.7 and above, the following restriction applies for pages developed in MDS or migrated to MDS from AK. When you personalize a parent region, you can no longer change any of the properties of its nested regions through the Advanced Settings page. You must select the Personalize Region link for the nested region and personalize the nested region itself. Only the properties of region items (such as individual fields) can be changed in the Advanced Settings page when you personalize a parent region.

General Properties

You may edit the General Properties of your region. Note that some of the properties discussed below do not appear if they are not relevant to the region you are personalizing.

- The page always shows the personalization level and personalization level value, if any, at which you are making personalizations.
- If the region has a header or label, you can update the value in the New Label field.
- If your selected region is a table, select the number of rows of data you wish to display.
- If you are creating a seeded user-level personalization, you may enter an optional description for this personalized view.
- If the region has a corporate-branding image file or product-branding image file defined, you can specify your own GIF image files to replace either of these files. If the region you are personalizing is not nested within other regions, that is, it is a page layout region, the image in your custom product-branding image file replaces the product-branding image that appears beneath the Corporate logo. If your region is a nested region, such as a header level region, the image in your custom product-branding image file replaces the icon that appears next to the header.
- If you are creating a personalization at an Admin-level that is higher than Localization, you have the option of associating a different controller class name with the region. This is useful if you are creating Localization-level personalizations and want to associate different controller classes with different localizations.

Note: You cannot change the controller class name associated with a region if you are creating an Org-or Site-level personalization, that is, a personalization at an Admin-level lower than Localization.

Column or Attribute Properties

If the region you are editing is a table, this part of the Create or Update View page is called Column Properties. If the region is not a table, this part of the page is called Attribute properties. Edit the Column/Attributes Properties section to specify the items you wish to display in the region and the order in which to display them.

1. Select an item from the Available Columns/Attributes or Columns/Attributes Displayed list and use the buttons between these lists to either move the selected item to or remove the selected item from the Columns/Attributes Displayed list.

Note: Items that are required fields in a page appear with an asterisk (*) and cannot be removed from the Columns/Attributes Displayed list.

2. Once you are satisfied with the items to display, use the buttons to the right of the list to reorder their sequence.

Note: You can hide or reorder the display of specific regions in a page by personalizing the region items of the top level region, that is, the parent container or page layout region.

3. Choose Advanced Settings to alter other settings for your items or add new items your region.

See

Advanced Settings and Adding New Items With OA Personalization Framework

Sort Settings

If the region you are personalizing is a table, the Sort Settings section appears in the Create View or Update View page.

- You can specify up to three levels of sorting for your data. Select a column from the Column Name context menu for each level of sorting you wish to perform.
- For each sort column, you must specify whether to sort in ascending or descending order.

Search Query to Filter Data in Table

If the region you are personalizing is a table, then the Search Query to Filter Data in Table section appears in the Create View or Update View page. You can filter the data that is displayed in the table based on criteria that you specify.

1. Indicate how you want the filter to match your search conditions by selecting one of the following radio buttons:
 - Show table data when all conditions are met.
 - Show table data when any condition is met.

2. The first four columns of the table are listed for you to specify search criteria. Using the context menu following the column name, choose a search condition and enter a value to search for in that column.
3. Select a column from the Add column context menu and choose Add to add more search criteria to your filter.
4. If you leave the search criteria blank for a column, the filter will not search on that column.

Saving Your Personalized View

To save your personalized view:

1. When you are done personalizing your view of the region, choose Apply to apply your personalizations to the region.
2. If you choose Revert to revert to default settings, the following occurs depending on the page you are using:
 - Create View page: the page defaults to the preseeded display settings. Also, if the region is a table, no query options are set.
 - Update View page: the page defaults to the display settings of the saved existing view. If the region is a table, the page also defaults to the query options of the saved existing view.

Advanced Settings

Starting with OA Framework 5.7, for pages developed in MDS or migrated to MDS from AK, if a region is nested beneath a parent region, you cannot change the properties of that nested region in the Advanced Settings page when you are personalizing the parent region. You must personalize the nested region itself. Only the properties of region items can be changed in the Advanced Settings page when you personalize a parent region.

You can change the labels for the items that you chose to display.

1. If an item is not originally marked as Required, but you want it to become Required, you can check the Required Field check box.

Note: Items originally marked as Required always remain required and cannot be changed with the Required Field check box.

2. Use the Updatable check box to mark whether the data for an item is updatable.
3. If you are personalizing a table, the Show Total column appears. You may check Show Total to turn on totaling for a specific item/column in your table, if it is applicable to the underlying data.

Note: If you choose to display a column with totaling capabilities, you may want to display this column as the last column of the table. You can reorder the columns in the Columns Displayed list located on the Create/Update View page.

4. The User Customizable check box allows someone making personalizations at a specific administrative personalization level to decide whether certain columns or attributes are further customizable at levels below the current personalization level.
5. Specify a default value for an item. This is optional.
6. You can display a static text message or tip for a column or region item. For example, suppose you need to add a tip on how to enter data into a specific column for your users in Japan.
7. If a column or attribute has a URL associated with it, you can edit the URL in the URL field. Columns/attributes such as buttons, images or links may have an associated URL that the application navigates to when a user clicks the button, image or link.
8. Choose Apply to accept your changes and return to the Create View or Update View page.
9. If the region you are personalizing is not a table, you may add a new item to the region. Choose the Add New Item button to add new items to your region with OA Personalization Framework.

Note: OA Personalization Framework does not currently support adding a new item to a table. All items in a table must be set to the same BC4J view usage name.

10. Use the Edit Item or Delete Item columns to edit or delete any of the items you create with OA Personalization Framework.

11. A column called Attachment Categories appears in the Advanced Settings screen. If an item within the region is an attachment item, an Categories button appears in the column for that item.

Adding New Items With OA Personalization Framework

You can add new items or fields in OA Framework-based pages in Oracle Self-Service Web Applications. You can only add new items to a self-service application page at the Admin-level.

To add new items:

1. Enable Admin-Level personalizations for your application by setting the Personalize Self-Service Defn profile option to Yes.
2. Navigate to the Create/Update View for the page you wish to personalize, and then choose Advance Settings.
3. The Advanced Settings page includes an Add New Item button.
4. When you select Add New Item from the Advanced Settings screen, a new screen called Extended Region Item appears, that lets you define a new region item.

Add a New Region Item

The region application ID identifies the application for which the current region applies and is owned. The region code identifies the region for which you are adding a new region item.

1. Select an application ID that identifies the application for which this attribute applies and is owned. OA Personalization Framework creates an attribute based on the information you specify in this page and creates a usage of that attribute as the new region item.
2. Enter a name for the new region item.
3. Use the Item Style poplist to select the type of HTML User Interface object that represents the data for the new item. The item styles that you may choose are:
 - **Button:** A button represents an action that you can perform on a region. OA Framework generates buttons as images that represent the underlying function.

- **Images:** An image can be a plain image that simply appears on the page, or can have a URL associated with it so that the user can click on it to navigate elsewhere. Although icon images are generally used as global buttons in Oracle Self-Service Web Applications, an icon image may also be used next to text to visually quantify its content, as in the case of tips, or in line messages
 - **Raw Text:** Any type of text. For example, the raw text style allows you to enter HTML tags to display text in bold.
 - **Reset Button:** A button that resets the values in a page.
 - **Separator:** A line to separate portions of a region. By default, the separator is rendered as a blue dotted line.
 - **Spacer:** A space that you can include in a region to improve the appearance of its layout.
 - **Static Text:** Text that is for display only and not for editing purposes. For example, if you wish to create a URL link, you would define its item style as static text.
 - **Text:** A text field that can be updated and have a default value.
 - **Tip:** Text that provides a tip about the contents of the region. When you select Tip as the Item Style, and then select Apply after completing the remainder of the Extended Region Item page, you return to Advanced Settings. In the Advanced Settings page, you can then specify the Tip Type and Tip Message name for the Tip region item.
4. Enter a label for the new region item. The value you enter gets displayed as the label of the region item.
 5. Specify the horizontal and vertical alignment of the region item. A horizontal alignment of Start results in left alignment for languages that read left to right or in right alignment for languages that read right to left.
 6. Specify a URL if your region item style is an Image, and you want to navigate to another URL when your user clicks on the image.
 7. If your region item style is Image, specify filename of your image file. Do not include any path information, as all image files must reside in OA_MEDIA.
 8. Enter a description for your region item.
 9. Choose Apply to create the new region item. The new region item should now appear in the Advanced Settings screen.

10. If you are the creator of the new region item, you can select the Edit Item or Delete Item column icons in the Advanced Settings page to edit or delete the region item. If you are not the owner of the new region item, or the region item is not created from OA Personalization Framework, the Edit Item and Delete Item icons are disabled.

Creating User-Level Personalizations

In Oracle Self-Service Web Applications, end-users may only personalize regions that are tables located within Query regions, and if a section called View Personalizations appears above the table.

Personalizing a Table Region at the User Level

To create a personalized view of a table in a Query:

1. Navigate to the application page that contains the table you wish to personalize.
2. If the page does not already show the View Saved Search or View Personalizations panel, select View Personalizations.
3. In the View Saved Search or View Personalizations panel, you have two options:
 - Apply a specific personal view, if one exists, by selecting a view from the View context menu and choosing Go.
 - Create a new view or update an existing view by choosing Personalize to display the Personal Table Views console.

Transaction Types

Topics covered in this chapter include the following:

- [Overview](#) on page 8-2
- [Introduction](#) on page 8-2
- [Functionality](#) on page 8-2
- [Example](#) on page 8-8

Overview

Release 11i of Oracle Order Management is fully integrated with the Oracle Workflow product. Workflow is a powerful, extensible product which provides graphical tools that allow non-programmers to define flexible business flows to precisely model their business processes. In order to capture the power of workflow in the workhorse module of Oracle Order Management the implementers must define Transaction Types. Transaction Types provide default information on orders and establish process controls.

Introduction

Order Management Transaction Types implementation is discussed in this chapter. The setup steps required to create a new transaction type are described, including creating the order transaction type, the line transaction type, assigning the document sequence and associating the appropriate workflows. A detailed example is provided at the end of the chapter.

Some of the features of Transaction Types/Workflow are:

- Each line in an order has its own workflow so each line may follow a different flow. This allows you to have both order and return lines on the same order.
- You can create new workflow activities from custom PL/SQL code. This makes it very easy to extend OM.
- A workflow process can have subprocesses.
- A workflow process can have an unlimited number of activities.
- There is no limit to the number of custom workflow activities that can be defined in Order Management.
- You can view the status of the workflow on an order or order line in either tabular or graphical format. In graphical format you can see not only the activities that the workflow has completed but also the activities that still require completion.

Functionality

There are transaction types associated with both order headers and order lines. Order numbers are now controlled by assigning an AOL document sequence to your order type. Creating document sequences and assigning them to order types

are two separate steps in Order Management, and neither can be done directly from the transaction types window.

Terminology

Transaction type is the generic term that refers to both Order Transaction Types and Line Transaction Types in Order Management. This is not to be confused with the Receivables Transaction Type, which is a completely different object.

The **transaction type code** may have values of Order or Line and determines whether the transaction type is an order transaction type or a line transaction type. In this document order type is used synonymously with order transaction type and line type is used synonymously with line transaction type.

A **document sequence** is a range of numbers that can be used for an order type and is defined by a numbering method (automatic, manual or gapless) and the beginning order number.

A **document category** is a specific type of document such as a sales order or a purchase order. These are used in many Oracle applications for key entities. In Order Management when you create an order transaction type the system automatically creates a document category with the same name. This is used to assign the numbering sequence to the order type.

Defining Line Transaction Types

The Define Transaction Types window is used to define both order and line types. Define your line types first. You should define line types for both order lines and return lines. To access the window from the order management navigation menu choose Setup -> Transaction Types -> Define. Enter a name for the line type in the Transaction Type field. Note that this name must be unique; you cannot create an order type and a line type with the same name. Enter LINE for the Transaction Type Code. Enter either Order or Return for the Order Category depending on whether your new line type is for sales lines or return lines. Many of the other fields on this window as well as the assign line flows button are not applicable to line types so when you enter the transaction type code they will become inaccessible. The inaccessible fields include Order Workflow, Default Return Line Type, Default Order Line Type, Agreement Required, Purchase Order Required, Credit Check Rule for Ordering and Credit Check Rule for Shipping.

The Agreement Type field is used for validation on the order line. If you enter an agreement type here, you can only use agreements of this type on sales order lines. If the field is blank you may enter agreements of any type. If you want to use the line type for a defaulting source you may enter a Price List on the Main tab. The

Enforce List Price flag will determine whether a user can apply a manual discount to the line at the time of order entry.

On the Shipping tab the autoschedule flag is inaccessible because it only applies to order types. The inspection required flag determines whether inspection is required when return lines are received. There are five Scheduling level choices to control the way scheduling works at the time of order entry for lines of this type: ATP Only, Allow all scheduling actions, No reservations, Inactive Demand with Reservations and Inactive Demand without Reservations. The remainder of the fields can be used for defaulting.

Two values on the Schedule Level LOV on the Shipping tab support different requirements for reservations: Inactive Demand with Reservations and Inactive Demand without Reservations. These levels can be set on the transaction types, which would mean that the line will not be scheduled and will not be seen as demand in APS. When this level is set, Schedule Ship Date entered by the user will be accepted and no scheduling is done. If scheduling is done as an action or through WF, Request Date will be copied to the Schedule Ship Date if it is already not there. The values are:

Four Inactive Demand with Reservations

- Meaning: The line is not visible to APS demand
 - Manually enter schedule date but the system will not schedule
 - The line can be reserved
 - This is for standard items and does not support Ship or Arrival Sets

Five Inactive Demand without Reservations

- Meaning: The line is not visible to APS demand
 - Manually enter schedule date but the system will not schedule
 - The line cannot be reserved
 - This is for standard items and does not support Ship or Arrival Sets

The Finance tab fields contain information which affects the interfaces with the financial applications. The Invoicing Rule and Accounting Rule fields are used as defaulting sources for the sales order, and this information on the sales order is passed to Autoinvoicing. For the fields Invoice Source, Non-Delivery Invoice Source, and Receivables Transaction Type these values are required for interfacing to Receivables but they are not on the sales order header or line. When the invoice interface activity in the workflow is executed the system will look for a value in the

following order: line transaction type, order transaction type, profile option. If no value is found the invoice interface activity will fail. The Cost of Goods Sold Account can be used by the Account Generator function of the inventory interface when a line is ship confirmed.

Defining Order Transaction Types

Next, define your order type. To access the window from the order management navigation menu choose Setup -> Transaction Types -> Define. Enter a name for the order type in the Transaction Type field. Again, this name must be unique; you cannot create an order type and a line type with the same name. Enter ORDER for the Transaction Type Code. Enter the value Mixed, Order or Return for the Order Category. If you enter Order the order type can only have lines with transaction type of ORDER. If you enter Return the order type can only have lines with transaction type of RETURN. If you enter MIXED the order can have lines with either transaction type. We will skip the Order Workflow field, the Assign Workflows button, the Default Return Line Type field and the Default Order Line Type field until the next section.

The Agreement Type field is used for validation on the order. If you enter an agreement type here, you can only use agreements of this agreement type on sales orders of this order type. If the field is blank you may enter agreements of any type. The Agreement Required and Purchase Order Required are used for validation. If the box is checked then these fields will be required on all orders of this type when the order is booked. If you want to use the order type as a defaulting source for Price List on the order you may enter a Price List on the Main tab. The Enforce List Price flag will determine whether a user can apply a manual discount to the order at the time of order entry. The Credit Check rules for ordering and shipping determine whether credit check will occur for this order type. If the fields are blank, no credit checking will occur for orders of this type.

On the Shipping tab the autoschedule flag determines whether scheduling will try to autoschedule the lines on orders of this type. The inspection required flag is not accessible (it only applies to lines). The rest of the fields can be used for defaulting.

The Finance tab fields are used for information which affects the interfaces with the financial applications. The Currency and Currency Conversion Type can be used as defaulting sources for the order header. The Invoicing Rule and Accounting Rule fields are used as defaulting sources for the sales order line, and this information on the sales order is passed to Autoinvoicing. For the fields Invoice Source, Non-Delivery Invoice Source, and Receivables Transaction Type these values are required for interfacing to Receivables but they are not on the sales order header or line. When the invoice interface activity in the workflow is executed the system will

look for a value in the following order: line transaction type, order transaction type, profile option. If no value is found the invoice interface activity will fail. The Cost of Goods Sold Account is used by the inventory interface when a line is ship confirmed.

Assigning Workflows to Transaction Types

Select appropriate workflows for your order type and line types. Several header and line workflows are seeded. You can perform all standard OM processing including orders, returns, drop ship orders, orders for configured items and orders for assemble to order items using only seeded workflows. You may also define your own workflows if you need additional steps (such as notifications) or additional processes. Not all order workflows can be used with all line workflows. Some workflow steps between an order and line are dependent on each other. For example, the order flow with header level invoicing has a step which waits for a continue activity in the line flow with header level invoicing to complete. If you do not use order and line flows which are designed to work together you can have orders or lines that either complete activities when you are not ready for them to complete or which will never complete.

The order type alone determines the order workflow. In the define transaction types window for the order type, enter the order workflow that you have selected. This is the name of the process in the workflow builder. Save the order type. (If you don't save, you won't be able to select the order type in the next step).

The combination of the order type, the line type and the item type determine the workflow that a line will have. For this reason, you define the line workflows from the order type workflow definition window. Press the Assign Line Flows button. Enter the order type. For each combination of line type and item type that you want to use with this order enter a line in the Assign Workflow processes window. The line types are the ones that you defined. The item types are based on the definition of the items in the inventory module and include values such as standard item, kit, and PTO model. If you leave the item type blank the workflow process that you define will be used for all item types. (Exception: If you use the configure to order process, you must specifically assign a workflow to the configured item type; the configured item will not use a workflow where the item type field is blank.) The process name is the name of the workflow process as defined in the workflow builder. You must enter a start date for each line flow definition. Note: Once documents have been created using an order type you cannot change the associated workflow assignments. Therefore if you need to change the workflows assigned to a transaction or disable a transaction you must enter an end date for the existing assignment, and if appropriate enter a new assignment for the for the new workflow.

Finally you may enter a Default Order Line Type and a Default Return Line Type on the order transaction window. These values can be used as sources for defaulting the line type to orders of this order type.

Creating a Document Sequence

OM uses the AOL document sequence functionality for numbering orders. You must define at least one document sequence to be used for your order types (unless you are upgrading from a previous release of Order Entry in which case your document sequences will be upgraded), and you may use it for all your order types. For instance, you could define an automatic sequence beginning with 1 and assign it to all your order types. Then each new order that you enter will receive the next number in the sequence. Alternatively, you may define multiple document sequences and use different ones with different order types. One sequence could be used with your domestic orders which begins with 1 and another sequence could be used for your international orders which begins with 10000. The number ranges would be separate and order types easily identifiable.

To create a document sequence from OM navigate to Setup -> Documents -> Define. Give the document sequence a name. Enter Oracle Order Management for the application. Enter an effective from date, select the numbering type (automatic, manual or gapless) and assign an initial value.

Assigning a Document Sequence to the Order Transaction Type

To assign your order type to a document sequence navigate to Setup -> Documents -> Assign. On the Document tab enter Oracle Order Management in the Application field and the order type in the Category field. Select the set of books. Enter Manual in the method field if the number sequence is manual, otherwise enter Null. On the assignment tab enter the start date and the sequence that you defined for your order type in the previous step. Note that you cannot change the assignment for an order type and set of books. To change the assignment you must assign an end date to the existing assignment and create a new one for the new assignment. You cannot have more than one assignment for the same date range, document type and set of books.

Reports

There is a report available which will print the setup information for your transaction types. It is called the Transaction Type Listing Report and you can print for one transaction type by name, a range of transaction types by name, only order transaction types, only line transaction types or any combination of these parameters.

Example

Now let’s create a new order type with associated line types, assign the workflow processes, and create and assign a document sequence. Then we’ll be ready to enter an order.

Here’s how you’d do this:

First, create a line type for your order lines. Navigate to Setup -> Transaction Types -> Define. Create a new transaction type with the following information. (Any fields not in this table should be left blank).

| Tab | Field | Value |
|----------|---|------------------------------|
| Main | Transaction Type | Standard |
| | Description | Standard Order Line |
| | Effective Dates - From | [Today’s Date] |
| | Transaction Type Code | LINE |
| | Order Category | Order |
| Shipping | Scheduling | Allow all scheduling actions |
| Finance | Credit Method for Invoices with Split Rules | Prorate |
| | Credit Method for Split Term Invoices | Prorate |

Next, create a line type for your return lines. On the same window create a new transaction type with the following information. (Any fields not in this table should be left blank).

| Tab | Field | Value |
|------|------------------------|--------------------------------|
| Main | Transaction Type | Return with Receipt and Credit |
| | Description | Standard Return Line |
| | Effective Dates - From | [Today’s Date] |
| | Transaction Type Code | LINE |
| | Order Category | Return |

| | | |
|----------|---|------------------------------|
| Shipping | Scheduling | Allow all scheduling actions |
| Finance | Credit Method for Invoices with Split Rules | Prorate |
| | Credit Method for Split Term Invoices | Prorate |

The last transaction type that you need to create is the order transaction type. On the same window create a new transaction type with the following information. (Any fields not in this table should be left blank).

| Tab | Field | Value |
|----------|---|---|
| Main | | |
| | Transaction Type | Mixed |
| | Description | Standard Order with both Order and Return Lines |
| | Effective Dates - From | [Today's Date] |
| | Transaction Type Code | ORDER |
| | Order Category | Mixed |
| Shipping | Scheduling | Allow all scheduling actions |
| Finance | Invoicing Rule | ADVANCE INVOICE |
| | Accounting Rule | IMMEDIATE |
| | Credit Method for Invoices with Split Rules | Prorate |
| | Credit Method for Split Term Invoices | Prorate |
| | Receivables Transaction Type | Invoice |

Now assign your workflows to your transaction types. You should still be on the define transaction type window for the Mixed order type. Add the following information to this window:

| Tab | Field | Value |
|------|----------------|----------------------|
| Main | | |
| | Order Workflow | Order Flow - Generic |

| | |
|--------------------------|--------------------------------|
| Default Return Line Type | Return with Receipt and Credit |
| Default Order Line type | Standard |

Save your order transaction type so that you will be able to use it in the next step.

Click Assign Line Flows and enter the following information on the Line Workflow Assignments window:

| Field | Value |
|--------------|--|
| Order Type | Mixed |
| Line 1 | |
| Line Type | Standard |
| Item Type | [Blank] |
| Process Name | Line Flow - Generic |
| Start Date | [Today's Date] |
| Line 2 | |
| Line Type | Return with Receipt and Credit |
| Item Type | [Blank] |
| Process Name | Line Flow - Return for Credit with Receipt |
| Start Date | [Today's Date] |

Create a document sequence for Orders. Navigate to Setup -> Documents -> Define. Enter the following information:

| Field | Value |
|---------------------|-------------------------|
| Name | Mixed Orders Sequence |
| Application | Oracle Order Management |
| Effective From Date | [Today's Date] |
| Type | Automatic |
| Initial Value | 1 |
| Start Date | [Today's Date] |

Finally, assign the order type to the document sequence. Navigate to Setup -> Documents -> Assign. Enter the following information:

| Tab | Field | Value |
|------------|--------------|--|
| Document | | |
| | Application | Oracle Order Management |
| | Category | Mixed [This is the name of the order type] |
| | Set of Books | [The set of books for the order type] |
| Assignment | | |
| | Start Date | [Today's Date] |
| | Sequence | Mixed Orders Sequence |

You should now be able to enter an order of type Mixed and process both order and return lines through invoicing.

Order Management Defaulting Rules

Topics covered in this chapter include the following:

- [Overview](#) on page 9-2
- [Introduction](#) on page 9-2
- [Implementation Considerations](#) on page 9-10
- [Migration/Upgrade from SVRS](#) on page 9-11
- [Example](#) on page 9-12
- [Order Management Defaulting Rules](#) on page 9-14

Overview

Defaulting rules enable field values on forms to populate automatically. They do not need to be keyed in manually. In Release 11 and earlier, the Oracle Order Entry product contained a feature called Standard Value Rule Sets (SVRS) where you defined how you wanted order attributes to be defaulted. In Release 11*i* Order Management, we have a new defaulting paradigm called 'Defaulting Rules', which offers somewhat differing functionality. This paper outlines the key differences between SVRS and the new Defaulting Rules, with tips on how to use the new, more powerful features.

Introduction

This chapter explains the key functional differences between the SVRS in Order Entry and the Defaulting Rules in Order Management to offer some insight into making the rules work for you.

Key Enhancements

Some of the great new enhancements that this framework allows are:

- the ability to default the Order Type
- the ability to define defaulting rules for returns and return lines - they used to be hard-coded.
- the ability to define formulas to create the defaulted data - see the Sources of Values section below.
- a clear distinction between 'defaulting' behavior and 'cascading' - see the Watch Out For section below.

Terminology

Since Defaulting Rules are now generic, and potentially can be used by other Oracle applications, generic names are used. You default to attributes and entities and default from sources.

See

[Sources of Values](#)

Attributes and Entities in Order Management

An Entity in this context is a group of related attributes that roughly correspond to a table or a form in Order Management. There are entities of Order Header, Order Line, Order Price Adjustment, Line Price Adjustment, and so on.

An Attribute is a field or column that belongs to that entity. Therefore, the ordered unit of measure is an attribute of the Order Line entity. When you query up the Defaulting Setup window for a particular entity, a list of all the attributes for which you can define defaulting rules display. You will not be able to define defaulting rules for descriptive flexfields, since their defaulting is controlled by AOL's flexfield routines.

Conditions

Conditions are rules set up that to control when a particular group of default sources will be looked at. Define one or more condition validation templates *per entity* based on common business rules to meet your business needs. Then you can use them over and over for the attributes of that entity. For example, you might set up a condition template for all return lines, or another one for all internal order lines. The ALWAYS condition is seeded for each entity. When defining a set of Conditions and using them in rules, be sure to place the ALWAYS condition last in the Precedence for Defaulting Conditions.

Defining Condition Validation Templates

Once you query up the entity that you want to work with in the Defaulting Setup window (use the flashlight icon to get the LOV of available entities), press the Defaulting Condition Template button to get to the window to define the conditions. A window that lists all the conditions already defined for this entity displays. To add a new condition, go to a blank line (or use the green + icon to create a blank line) and key in a name and description for your new condition.

- The lower half of the window is where you enter the details of the condition you are defining or viewing.
- The Group Number is an arbitrary number used to control AND and OR conditions. Indicate that rules are to be connected by an AND rule by giving them the same group number. Rules to be connected with OR should be given different group numbers.
- In the Attribute column, choose from the list of attributes on which a condition can be based. Available attributes that show up here are ones **from this entity** that have the 'Include in Building Defaulting Conditions' checkbox checked on

the Defaulting Setup - Entity Attributes window. The only attributes that have this checkbox checked are ones that are the source for a dependency relationship. See section on Dependencies below. You cannot add to this list of attributes.

- In the Operator column, choose an operator from equal, not equal, greater than, less than, not greater than or not less than.
- In the Value String column, key in (or choose from the LOV) the actual value you want to compare to.

Sequence of Defaulting

On the main Defaulting Setup screen, where all the attributes of the entity are listed, there is a column called Defaulting Sequence. This number determines the order in which attribute defaulting takes place. When attributes have equal sequence numbers, defaulting takes place alphabetically. All the attributes are seeded with a sequence of 50. You can change these sequences, if you need defaulting to happen in some different order. For example, you might define a sourcing rule that says default attribute A on the line from attribute B on the same line. In this case, you need to insure that the Attribute B gets its value before A is defaulted, or the rule will not work as expected.

Sources of Values

Sources are places where values can be defaulted from. Defaulting Rules provide a variety of sources that can be used in building your defaults. Most of them will be familiar to users of Oracle Order Entry.

- **Constant Value:** A text string that will be used.
- **Profile Option:** is the value of a profile option. This can be a system provided profile option, or a new profile option that you've defined just to provide a defaulting value.
- **Same Record:** The value of another attribute on the same entity (or record) as the attribute you are defining the rule. For example, you might set up the Promise Date to default from the Request Date on the same line.
- **Related Record:** The value of another attribute on a related entity (or record). For example, you might set up the Ship Method on the line to default from the Ship Method on the header. Similarly, an attribute on the order header might default from an attribute on the related customer record.

- **System Variable:** The value of a system (server) variable, such as System Date. For this type of source (and this type only), you can use an expression containing a formula, for example, sysdate + 7.
- **PL/SQL API:** Define your own routine to provide the default. There are a few seeded defaulting rules that use this - for example, defaulting of the currency on the order header from the set of books (SOB) is seeded this way. Look at this attribute for an example of how to specify a PL/SQL API or look in the Rule Based Defaulting Framework HLD for technical details.
- **Others:** there are several esoteric source types relating to the Web App Dictionary definitions for this attribute. They are documented in the Rule Based Defaulting Framework HLD.

Defining Sourcing Rules

Once you query up the entity that you want to work with in the Defaulting Setup window and have defined your Conditions, you are ready to define your Sourcing Rules. Select the attribute you want to work on, and then click on the Defaulting Rules button to get to a window called Attribute Defaulting Rules. This window lists all the conditions and rules that have been previously defined for this attribute. To add a new condition and its rules, go to a blank line in the Defaulting Conditions section of the window (or use the green + icon to create a blank line), key in a precedence and choose from conditions you have already defined. (The precedence controls the sequence in which the conditions are evaluated.)

The lower half of the window is where you enter the details of the rule you are defining or viewing for this condition. This set of defaulting rules will be used if its corresponding Defaulting Condition is TRUE.

- The Sequence here controls the order in which the system attempts to locate a default.
- In the Source Type column, choose from the list of Source Types as described above.
- In the Default Source Value column, specify the attribute or value you want to use for the source. Selection choices here depends on the Source Type you have selected. There is a good table in the Setup section of the *Oracle Order Management R11i User's Guide* that explains the various options per Source Type. What you'll see in this field is a flexfield whose context is based on the Source Type. Then you can choose among pre-seeded possible source attributes.

There are similar restrictions to defaults. The data type has to match that of the attribute you are defaulting, and the source relationship has to be pre-defined.

Dependencies

Some attributes are dependent upon the value of other attributes on the same record. If an attribute is changed, either by the user or by the system, only other attributes that are dependent on it will be cleared and then re-defaulted. As of September 2000, functionality was changed for certain fields such that if re-defaulting did not come up with a default for the dependent field, the old value would be retained instead of clearing that value. These fields are: price list, salesperson, customer po number, order type.

The Price List is dependent on Agreement. If the Agreement is changed, the Price List will be cleared and re-defaulted. If re-defaulting does not come up with a default for the dependent field, the old value is retained instead of clearing that value. Affected fields include price list, salesperson, customer po number, and order type.

In the initial implementation of Defaulting Rules, dependencies are hard-coded. See the Rule Based Defaulting Framework HLD for a list of which dependencies have been provided. Alternatively, you can also check current code in the hard coded dependencies package - OE_Dependencies (file: \$ONT_TOP/patch/115/sql/OEXUDEPB.pls) to get the latest list.

If you need to create additional dependencies or disable existing dependencies that you do not need, you can use an API hook: package OE_Dependencies_Extn (\$ONT_TOP/patch/115/sql/OEXEDEPB.pls).

Adding dependencies via this hook is SUPPORTED as long as the guidelines documented in the file are followed. Following the guidelines would also ensure that patches do not over-write the changes introduced by customers.

However, please note that:

- The list of source/dependent attributes that can be used to setup the dependencies is restricted. Refer to comments in file - OEXEDEPB.pls - for the complete list.
- Dependencies can be established only among attributes on the same entity, not across entities such as changing an attribute on order header will NOT result in a change to attributes on order line.

Examples

1. You set up a defaulting condition based on order type 'A' and use this condition to default salesperson 'A' if order type is 'A'. In order for this rule to work, a new dependency needs to be enabled with the Source Attribute: Order Type,

Dependent Attribute: Salesperson. And the entity on which this dependency needs to be defined is => Order Header, so you add the dependency code under the IF for header entity.

```
IF p_entity_code = OE_GLOBALS.G_ENTITY_HEADER THEN
  x_extn_dep_tbl(l_index).source_attribute := OE_HEADER_UTIL.G_
  ORDER_TYPE;

  x_extn_dep_tbl(l_index).dependent_attribute := OE_HEADER_UTIL.G_
  SALESREP;

  x_extn_dep_tbl(l_index).enabled_flag := 'Y';

  l_index := l_index + 1;
```

2. There is an updated ship to on the order but this results in invoice to being cleared/updated. Deleted/disabled defaulting rule to default invoice to from ship to and still the behavior does not change. The reason is that there is a hard coded dependency of invoice to on the ship to field. In order to ensure that invoice to is not affected by a change to ship to, dependency should be disabled via this new hook. Source Attribute: Ship To, Dependent Attribute: Invoice To.

```
IF p_entity_code = OE_GLOBALS.G_ENTITY_HEADER THEN
  x_extn_dep_tbl(l_index).source_attribute := OE_HEADER_UTIL.G_SHIP_
  TO_ORG;

  x_extn_dep_tbl(l_index).dependent_attribute := OE_HEADER_UTIL.G_
  INVOICE_TO_ORG;

  x_extn_dep_tbl(l_index).enabled_flag := 'Y';

  l_index := l_index + 1;
```

If it is required that updating of ship to should not change the value of invoice to on the order line either, dependency should be separately disabled for line also.

```
ELSF p_entity_code = OE_GLOBALS.G_ENTITY_LINE THEN
  x_extn_dep_tbl(l_index).source_attribute := OE_LINE_UTIL.G_SHIP_TO_
  ORG;

  x_extn_dep_tbl(l_index).dependent_attribute := OE_LINE_UTIL.G_
  INVOICE_TO_ORG;

  x_extn_dep_tbl(l_index).enabled_flag := 'Y';

  l_index := l_index + 1;
```

It is somewhat more involved if you want to create a dependency for a source or dependent attribute that is not listed in OEXEDEPB.pl. This requires CUSTOMIZATION of existing packages, and patches in the future might over-write your changes.

3. Adding a new Source Attribute. You want to make Shipping Method on the header dependent on Shipment Priority.
 - Add a dependency in OEXDEPB.pls as above with Source Attribute: Shipment Priority, Dependent Attribute: Shipping Method.
 - Customize another entity specific utility package, because Shipment Priority is not listed as one of the source attributes available on Order Header.

Add the following statement in OE_Header_Util.Clear_Dependent_Attr

(file: OEXUHDRB.pls). If you want a change in the Shipment Priority on the order line to also affect Shipping Method on the order line entity, code similar to the following needs to be added to OE_Line_Util_Ext.

```
IF NOT OE_GLOBALS.Equal(p_x_header_rec.shipment_priority_code
    ,p_old_header_rec.shipment_priority_code)
THEN
    l_index := l_index + 1.0;
    l_src_attr_tbl(l_index) := OE_HEADER_UTIL.G_SHIPMENT_PRIORITY;
END IF;
```

4. Adding a new Dependent Attribute: You want to make Planning Priority on the line to be defaulted based on Demand Class. You need to add a dependency in OEXDEPB.pls as shown above with Source Attribute: Demand Class, Dependent Attribute: Planning Priority. If Demand Class is not listed as one of the source attributes available on Order Line entity, you need to go through the steps outlined above to add it as a source attribute. And if Planning Priority is not listed as one of the dependent attributes for order line entity, you also need to CUSTOMIZE another section of the entity specific utility package.

Add the following sub-procedure in OE_Line_Util_Ext.Clear_Dependents (file: OEXULXTB.pls).

```
PROCEDURE PLANNING_PRIORITY IS
BEGIN
```

```

IF (p_initial_line_rec.PLANNING_PRIORITY = FND_API.G_MISS_CHAR
OR OE_GLOBALS.Equal(p_initial_line_rec.PLANNING_PRIORITY
, p_old_line_rec.PLANNING_PRIORITY))
THEN
    p_x_line_rec.PLANNING_PRIORITY := FND_API.G_MISS_NUM;
END IF;

END PLANNING_PRIORITY;

```

Note that for VARCHAR2 fields, you must replace G_MISS_NUM with G_MISS_CHAR & for DATE fields. It should be G_MISS_DATE. Also, add a statement in the big IF loop in the main procedure to call this new sub-procedure:

```

ELSIF l_dep_attr_tbl(i) = OE_LINE_UTIL.G_AGREEMENT THEN
    AGREEMENT;

```

For adding dependent fields on Order Header entity, follow the above steps & add similar code in header utility package: OE_Header_Util (file: OEXUHDRB.pls).

Controlling Changes

Order Management's Defaulting Rules controls who can change data and when using the Processing Constraints framework regardless of how or whether an attribute was defaulted. In addition, when defining Processing Constraints you have the ability to indicate that you want the system to be able to update an attribute, but limit your other others privileges to make changes.

The only time that Defaulting Rules result in a change to an existing attribute on an entity is when that attribute has a dependency on another attribute that has been changed.

Reports

There is a new report in Order Management that lists the Defaulting Rules you have set up. It replaces the old OE Standard Value Rules Listing. The report is called Defaulting Rules Listing, and it has parameters to allow you to limit the listing to a specific object (entity), attribute or condition.

Implementation Considerations

Creating Conditions

Conditions give you powerful flexibility in designing how you will implement defaulting rules for your company. However, there are a few behaviors to take into consideration when creating Conditions.

What Attributes can you use?

Be aware that Conditions you create for an entity can only be based on attributes that belong to that entity. Therefore, for example, you cannot set up a Condition for a line attribute based on the order type because order type is a header attribute. You'll have to examine carefully your business rules so you can state Conditions in terms of attributes on the same level. Fortunately, in Order Management, most attributes (with few exceptions such as order type and currency) at the header are also present at the line level. Even the sold-to customer is present as a line-level attribute, even though the software enforces that the customer is the same throughout an order. This way, the customer can be used in a condition template for the line.

Sequencing of Attributes Used in Conditions

Sequencing of defaulting of attributes plays an important role in the correct design of Conditions and Sourcing Rules. If you create a rule for attribute X based on a Condition using attribute Y, you must be sure that attribute Y gets defaulted before attribute X, or your Condition will not evaluate true. For example, if you define a Condition for defaulting the Unit of Measure by using the Customer, it will only work if you ensure Customer gets defaulted before UOM. And even then, it will only work for the initial defaulting of the UOM field. And that is because of Dependencies.

Dependencies of Attributes Used in Conditions

So you must also regard dependencies when you are building Conditions. If a Condition involving attribute Y is used to setup the defaulting rule for attribute X, then the rule will work during subsequent updates of attribute Y only if attribute X is dependent on attribute Y. So in the UOM and Customer example above, if you later change the Customer on the order, the UOM will not re-default based on the new customer, because UOM is not dependent on Customer.

Defaulting vs. Cascading

In Order Management, a clear and unambiguous distinction has been made between defaulting and cascading, that will cause behavior different from what we have become used to in R11 Order Entry. In OE, defaulting and cascading were intermixed, making it sometimes difficult to predict what might happen when an attribute at one level was changed. In OM, the defaulting logic will come into play only when the record is initially created (when you click on a new record on the window), or when an attribute upon which this attribute is dependent is changed. Cascading, on the other hand, means replicating the value of an attribute down to lower level entities. We do not perform cascading in Order Management. If you want to change the value of attributes on existing rows, you need to use the new mass change capability, where you multi-select the rows you want to change, and then change them.

How do these concepts get applied? Assume you have a defaulting rule set up to default a line-level attribute such as Ship Method from the header to the line. Create an order with several lines and use Ship Method A for the header (and therefore the lines). Then you want to change the ship method to Ship Method B. Changing this attribute at the header will result in any subsequent new lines getting Ship Method B defaulted onto them. The existing lines that have Ship Method A will not get changed to B as a result of your changing the header attribute. You will need to use mass change to do that. The good news is that the user has explicit and unambiguous control over what lines get changed.

Migration/Upgrade from SVRS

Because of the magnitude of the changes to the fundamental architecture between SVRS and Defaulting Rules, the decision was made to not upgrade any user-defined SVRS. Defaulting Rules have been seeded that provide equivalent functionality to the R11 seeded SVRS. There is a good table in Appendix E of the *Oracle Order Management R11i User's Guide* that lists all attributes of the Order Header and Order Lines entities, and what the seeded defaulting rule is for each of those attributes.

Users of Order Entry who created their own Standard Value Rules or customized the seeded rule sets will need to carefully review the logic behind their changes or customizations, and create equivalent Defaulting Rules for the attributes affected. Typically a user will need to create Conditions corresponding to their particular business need, and then create Defaulting Rules using those Conditions for the necessary attributes.

Example

This is how you can use Defaulting Rules. Let's take the example of a very common business need - the need to default the Order Type based on customer (sometimes) and otherwise based on user. This was something that could not be done using SVRS in Order Entry. Order Type was one of those things that always had to be keyed or selected from an LOV. But in Order Management, you can write rules to default the Order Type.

Here's the business requirement:

Some of your customers have such special processing requirements, that you have a special order type set up just for them - all their orders generally are of that order type. As a matter of fact, a bill-to location or a ship-to location of a customer might even need to have its own special order type. However, for the general case, you would like users in various departments to always enter orders of a particular type - Domestic CSRs might enter orders of Order Type 'Domestic', whereas your Export Department personnel might enter orders of Order Type 'International'.

Here's how you'd do this:

First, create a new custom profile option that you'll have the system administrator use to specify the default order type for different responsibilities or users.

Second, create defaulting rules for entity: Order Header, attribute: Order Type. Use the seeded condition ALWAYS, as you want to just set up one set of rules. Have the defaulting precedence be:

| 5 | Related Record | Invoice-to: Order Type |
|----|---------------------|---|
| 10 | Related Record | Ship-to: Order Type |
| 15 | Related Record | Customer: Order Type |
| 20 | Application Profile | OMX: xxxxxxxx (your new profile option) |

Finally, for customers with special order type needs, store their special order type in their Customer, ship-to or bill-to record as required. You would leave this field null for most customers, to let the profile option be used.

As a customer is entered on an order, the defaulting code will look first at the customer bill-to site for a default order type, then to the ship-to record, then to the customer header, and finally to the new profile option.

For a closer look at exactly how to perform these setup steps, see the Defaulting Demoshield in the OM Toolbox. It contains an example of setting up these exact rules.

Order Management Defaulting Rules

The following table shows the possible entities and attributes for which you can define defaulting rules. Each table displays all the fields for a block.

Table 9–1 Order Header

| Attribute | Precedence | Defaulting Condition | Source Type | Default Source/Value |
|-----------------------------|------------|----------------------|----------------|---------------------------------------|
| Accounting Rule | 1 | Always | Related Record | Agreement.Accounting Rule |
| Accounting Rule | 2 | Always | Related Record | Order Type.Accounting Rule |
| Contact | 1 | Always | Related Record | Agreement.Invoice To Contact |
| Contact | 2 | Always | Same Record | Invoice To Contact |
| Contact | 3 | Always | Same Record | Ship To Contact |
| Conversion Type | 1 | Always | Related Record | Order Type.Conversion Type |
| Credit Card Expiration Date | 1 | Payment Type | PL/SQL API | OE_DEFAULT_PVT.Get_CC_Expiration_Date |
| Credit Card Holder Name | 1 | Payment Type | PL/SQL API | OE_DEFAULT_PVT.Get_CC_Holder_Name |
| Credit Card Number | 1 | Payment Type | PL/SQL API | OE_DEFAULT_PVT.Get_Credit_Card_Number |
| Currency | 10 | Always | PL/SQL API | OE_DEFAULT_PVT.Get_SOB_Currency_Code |
| Currency | 5 | Always | Related Record | Price List.Currency |
| Customer PO | 1 | Always | Related Record | Agreement.Customer PO |
| Deliver To Contact | 1 | Always | Related Record | Deliver To Org.Contact |
| Deliver To Organization | 1 | Always | Related Record | Customer.Deliver To Org |
| Demand Class | 1 | Always | Related Record | Ship To.Demand Class |
| Demand Class | 2 | Always | Related Record | Order Type.Demand Class |

Table 9–1 Order Header

| Attribute | Precedence | Defaulting Condition | Source Type | Default Source/Value |
|--------------------|-------------------|-----------------------------|--------------------|------------------------------|
| FOB Point | 1 | Always | Related Record | Ship To.FOB Point |
| FOB Point | 2 | Always | Related Record | Invoice To.FOB Point |
| FOB Point | 3 | Always | Related Record | Customer.FOB Point |
| FOB Point | 4 | Always | Related Record | Order Type.FOB Point |
| Freight Terms | 1 | Always | Related Record | Ship To.Freight Terms |
| Freight Terms | 2 | Always | Related Record | Invoice To.Freight Terms |
| Freight Terms | 3 | Always | Related Record | Customer.Freight Terms |
| Freight Terms | 4 | Always | Related Record | Order Type.Freight Terms |
| Freight Terms | 5 | Always | Related Record | Price List.Freight Terms |
| Invoice To | 1 | Always | Related Record | Agreement.Invoice To |
| Invoice To | 2 | Always | Related Record | Ship To.Invoice To |
| Invoice To | 3 | Always | Related Record | Customer.Invoice To |
| Invoice To Contact | 1 | Always | Related Record | Agreement.Invoice To Contact |
| Invoice To Contact | 2 | Always | Related Record | Invoice To.Contact |
| Invoicing Rule | 1 | Always | Related Record | Agreement.Invoicing Rule |
| Invoicing Rule | 2 | Always | Related Record | Order Type.Invoicing Rule |
| Ordered Date | 1 | Always | System Variable | SYSDATE |

Table 9–1 Order Header

| Attribute | Precedence | Defaulting Condition | Source Type | Default Source/Value |
|------------------------|-------------------|-----------------------------|--------------------|-------------------------------|
| Order Date Type Coders | 1 | Always | Related Record | Customer.Order Date Type Code |
| Order Type | 5 | Always | Related Record | Invoice To.Order Type |
| Order Type | 10 | Always | Related Record | Ship To.Order Type |
| Order Type | 15 | Always | Related Record | Customer.Order Type |
| Payment Term | 1 | Always | Related Record | Agreement.Payment Term |
| Payment Term | 2 | Always | Related Record | Ship To.Payment Term |
| Payment Term | 3 | Always | Related Record | Invoice To.Payment Term |
| Payment Term | 4 | Always | Related Record | Customer.Payment Term |
| Payment Term | 5 | Always | Related Record | Price List.Payment Term |
| Price List | 1 | Always | Related Record | Agreement.Price List |
| Price List | 2 | Always | Related Record | Ship To.Price List |
| Price List | 3 | Always | Related Record | Order Type.Price List |
| Pricing Date | 1 | Always | System Variable | SYSDATE |
| Request Date | 1 | Always | System Variable | SYSDATE |
| Salesperson | 1 | Always | Related Record | Agreement.Salesperson |
| Salesperson | 2 | Always | Related Record | Customer.Salesperson |
| Salesperson | 3 | Always | Related Record | Ship To.Salesperson |

Table 9–1 Order Header

| Attribute | Precedence | Defaulting Condition | Source Type | Default Source/Value |
|-------------------|------------|----------------------|----------------|------------------------------|
| Salesperson | 4 | Always | Related Record | Invoice To.Salesperson |
| Ship To | 1 | Always | Related Record | Customer.Ship To |
| Ship To Contact | 1 | Always | Related Record | Ship To.Contact |
| Shipment Priority | 1 | Always | Related Record | Order Type.Shipment Priority |
| Shipping Method | 1 | Always | Related Record | Ship To.Shipping Method |
| Shipping Method | 2 | Always | Related Record | Invoice To.Shipping Method |
| Shipping Method | 3 | Always | Related Record | Customer.Shipping Method |
| Shipping Method | 4 | Always | Related Record | Order Type.Shipping Method |
| Shipping Method | 5 | Always | Related Record | Price List.Shipping Method |
| Tax Exempt | 1 | Always | Constant Value | S |
| Warehouse | 1 | Always | Related Record | Ship To.Warehouse |
| Warehouse | 2 | Always | Related Record | Order Type.Warehouse |

Table 9–2 Order Line

| Attribute | Precedence | Defaulting Condition | Source Type | Default Source/Value |
|-----------------|------------|----------------------|----------------|--------------------------------|
| Accounting Rule | 1 | Always | Related Record | Agreement.Accounting Rule |
| Accounting Rule | 2 | Always | Related Record | Line Type.Accounting Rule |
| Accounting Rule | 3 | Always | Related Record | Inventory Item.Accounting Rule |
| Accounting Rule | 4 | Always | Related Record | Order Header.Accounting Rule |

Table 9–2 Order Line

| Attribute | Prece- dence | Defaulting Condition | Source Type | Default Source/Value |
|--------------------|-------------------------|-----------------------------|--------------------|---|
| Agreement | 1 | Always | Related Record | Order Header.Agreement |
| Customer | 2 | Always | Related Record | Order Header.Customer |
| Customer PO | 1 | Always | Related Record | Order Header.Customer PO |
| Deliver To Contact | 1 | Always | Related Record | Order Header.Deliver To Contact |
| Demand Class | 1 | Always | Related Record | Order Header.Demand Class |
| Demand Class | 2 | Always | Related Record | Ship To.Demand Class |
| Demand Class | 3 | Always | Related Record | Line Type.Demand Class |
| Dep Plan Required | 1 | Always | Related Record | Customer Item.Dep Planning Req'd |
| FOB Point | 2 | Always | Related Record | Order Header.FOB Point |
| Freight Terms | 1 | Always | Related Record | Order Header.Freight Terms |
| Invoice To | 10 | Always | Related Record | Order Header.Invoice To |
| Invoice To | 20 | Always | Related Record | Ship To.Invoice To |
| Invoice To Contact | 1 | Always | Related Record | Agreement.Invoice To Contact |
| Invoice To Contact | 2 | Always | Related Record | Invoice To.Contact |
| Invoice To Contact | 3 | Always | Related Record | Order Header.Invoice To Contact |
| Invoicing Rule | 1 | Always | Related Record | Agreement.Invoicing Rule |
| Invoicing Rule | 2 | Always | Related Record | Line Type.Invoicing Rule |
| Invoicing Rule | 3 | Always | Related Record | Inventory Item.Invoicing Rule |
| Invoicing Rule | 4 | Always | Related Record | Order Header.Invoicing Rule |
| Line Type | 1 | Always | Regular Line | Order Header.Default Outbound Line Type |
| Line Type | 1 | Always | Return Line | Order Header.Default Inbound Line Type |
| Order Quantity Uom | 1 | Always | Return Line | Inventory Item.Primary UOM |

Table 9–2 Order Line

| Attribute | Precedence | Defaulting Condition | Source Type | Default Source/Value |
|----------------------|-------------------|-----------------------------|--------------------|---|
| Payment Term | 1 | Always | Related Record | Order Header.Payment Term |
| Price List | 1 | Always | Related Record | Order Header.Price List |
| Price List | 2 | Always | Related Record | Ship To.Price List |
| Pricing Date | 1 | Always | System Variable | SYSDATE |
| Promise Date | 1 | Always | Related Record | Order Header.Request Date |
| Promise Date | 2 | Always | Same Record | Schedule Ship Date |
| Request Date | 1 | Always | Related Record | Order Header.Request Date |
| Request Date | 2 | Always | System Variable | SYSDATE |
| Return Reason | 1 | Return Line | Related Record | Order Header.Return Reason |
| Salesperson | 1 | Always | Related Record | Order Header.Salesperson |
| Ship To | 1 | Always | Related Record | Order Header.Ship To |
| Ship To Contact | 1 | Always | Related Record | Ship To.Contact |
| Ship To Contact | 2 | Always | Related Record | Order Header.Ship To Contact |
| Shipment Priority | 1 | Always | Related Record | Order Type.Shipment Priority |
| Ship Tolerance Above | 1 | Always | Related Record | Item Ship To Tolerance.Over Shipment Tolerance |
| Ship Tolerance Above | 10 | Always | Related Record | Item Bill To Tolerance.Over Shipment Tolerance |
| Ship Tolerance Above | 20 | Always | Related Record | Customer Item Tolerance.Over Shipment Tolerance |
| Ship Tolerance Above | 30 | Always | Related Record | Ship To.Over Shipment Tolerance |
| Ship Tolerance Above | 40 | Always | Related Record | Invoice To.Over Shipment Tolerance |
| Ship Tolerance Above | 50 | Always | Related Record | Customer.Over Shipment Tolerance |
| Ship Tolerance Above | 60 | Always | Related Record | Inventory Item.Over Shipment Tolerance |

Table 9–2 Order Line

| Attribute | Precedence | Defaulting Condition | Source Type | Default Source/Value |
|-------------------------|-------------------|-----------------------------|---------------------|--|
| Ship Tolerance Above 70 | | Always | Application Profile | OM: Over Shipment Tolerance |
| Ship Tolerance Above 1 | | Return Line | Related Record | Item Ship To Tolerance.Over Shipment Tolerance |
| Ship Tolerance Above 10 | | Return Line | Related Record | Item Bill To Tolerance.Over Return Tolerance |
| Ship Tolerance Above 20 | | Return Line | Related Record | Customer Item Tolerance.Over Return Tolerance |
| Ship Tolerance Above 30 | | Return Line | Related Record | Ship To.Over Return Tolerance |
| Ship Tolerance Above 40 | | Return Line | Related Record | Invoice To.Over Return Tolerance |
| Ship Tolerance Above 50 | | Return Line | Related Record | Customer.Over Return Tolerance |
| Ship Tolerance Above 60 | | Return Line | Related Record | Inventory Item.Over Return Tolerance |
| Ship Tolerance Above 70 | | Return Line | Application Profile | OM: Over Return Tolerance |
| Ship Tolerance Below 1 | | Always | Related Record | Item Ship To Tolerance.Under Shipment To |
| Ship Tolerance Below 10 | | Always | Related Record | Item Bill To Tolerance.Under Shipment Tolerance |
| Ship Tolerance Below 20 | | Always | Related Record | Customer Item Tolerance.Under Shipment Tolerance |
| Ship Tolerance Below 30 | | Always | Related Record | Ship To.Under Shipment Tolerance |
| Ship Tolerance Below 40 | | Always | Related Record | Invoice To.Under Shipment Tolerance |
| Ship Tolerance Below 50 | | Always | Related Record | Customer.Under Shipment Tolerance |
| Ship Tolerance Below 60 | | Always | Related Record | Inventory Item.Under Shipment Tolerance |

Table 9–2 Order Line

| Attribute | Precedence | Defaulting Condition | Source Type | Default Source/Value |
|----------------------|------------|----------------------|---------------------|--|
| Ship Tolerance Below | 70 | Always | Application Profile | OM: Under Shipment Tolerance |
| Ship Tolerance Below | 1 | Return Line | Related Record | Item Ship To Tolerance.Under Return Tolerance |
| Ship Tolerance Below | 10 | Return Line | Related Record | Item Bill To Tolerance.Under Return Tolerance |
| Ship Tolerance Below | 20 | Return Line | Related Record | Customer Item Tolerance.Under Return Tolerance |
| Ship Tolerance Below | 30 | Return Line | Related Record | Ship To.Under Return Tolerance |
| Ship Tolerance Below | 40 | Return Line | Related Record | Invoice To.Under Return Tolerance |
| Ship Tolerance Below | 50 | Return Line | Related Record | Customer.Under Return Tolerance |
| Ship Tolerance Below | 60 | Return Line | Related Record | Inventory Item.Under Return Tolerance |
| Ship Tolerance Below | 70 | Return Line | Application Profile | OM: Under Return Tolerance |
| Shipment Priority | 1 | Always | Related Record | Order Header.Shipment Priority |
| Source Type | 1 | Always | Constant Value | INTERNAL |
| Tax Code | 1 | Always | PL/SQL API | OE_DEFAULT_PVT.GET_TAX_CODE |
| Tax Date | 1 | Always | Same Record | Schedule Ship Date |
| Tax Date | 2 | Always | Same Record | Promise Date |
| Tax Date | 3 | Always | Same Record | Request Date |
| Tax Date | 4 | Always | System Variable | SYSDATE |
| Tax Exempt Number | 1 | Always | PL/SQL API | OE_Default_PVT.GET_TAX_EXEMPTION_DETAILS |
| Tax Exempt Reason | 1 | Always | PL/SQL API | OE_Default_PVT.GET_TAX_EXEMPTION_DETAILS |

Table 9–2 Order Line

| Attribute | Prece- dence | Defaulting Condition | Source Type | Default Source/Value |
|-----------|-----------------|----------------------|----------------|---|
| Warehouse | 1 | Always | Related Record | Customer.Warehouse |
| Warehouse | 2 | Always | Related Record | Inventory Item.Primary Shipping Organization |
| Warehouse | 3 | Always | Related Record | Order Header.Warehouse |
| Warehouse | 4 | Always | Related Record | Line Type.Warehouse |
| Warehouse | 5 | Always | Related Record | Ship To.Warehouse |

Table 9–3 Order Price Adjustment

| Attribute | Precedence | Defaulting Condition | Source Type | Default Source/Value |
|-----------|------------|----------------------|----------------|----------------------|
| Automatic | 1 | Always | Constant Value | N |

Processing Constraints

Topics covered in this chapter include the following:

- [Overview](#) on page 10-2
- [Introduction](#) on page 10-2
- [Background](#) on page 10-3
- [Terminology](#) on page 10-3
- [Migration/Upgrade from Security Rules](#) on page 10-16
- [Examples](#) on page 10-16

Overview

Processing Constraints enables you to control changes to sales orders in Oracle Order Management. This chapter describes the Processing Constraints framework in detail.

Introduction

Processing constraints are rules that control who can change what and when.

- You can control who can make changes based on responsibility. A constraint (rule) may apply to all responsibilities, to only a list of constrained responsibilities or to all except a list of authorized responsibilities.
- You can control more than just what can be updated. The following operations can be controlled: Create, update, delete, cancel, and split all at the entity level. For example, given a set of conditions you may not want to allow a user to create a new order line. You can also control the update operation down to the attribute level. For example, given a set of conditions, you could choose to allow update to the warehouse field of an order line but not to the price list field.
- You can control changes to six entities. An entity roughly corresponds to a table or window. The entities you can control in Order Management are the order header, order line, order sales credit, line sales credit, order price adjustment and line price adjustment.
- You can control the changes based on a group of conditions. The conditions must be collectively true for the constraint to fire or prevent the changes. The conditions may be based on either the state of a workflow activity (where the entity is in the flow) or a value in a table. A condition may also be based on a custom API, which means that you can call your own PL/SQL code to evaluate the condition.

Multiple conditions can be combined using either AND logic (all the conditions must be true) or OR logic (at least one of the conditions must be true.)

A custom message can display when an attempt is made to violate a constraint.

This chapter details the differences between Processing Constraints and the functionality in Order Entry that it replaced - Security Rules. It describes in detail the implications of selected values in following forms: Processing Constraints, Validation Templates and Record Sets. Finally, set up for processing constraints is demonstrated using the following business examples:

- No one can change the customer purchase order at the line level; your company requires that one sales order can relate to only one customer purchase order.
- No one can add a line to an order after any of the lines on the order have been invoice interfaced.
- A reason is required to cancel an order line after it has been booked.
- Only the Customer Service Manager can change the discount percentage on an order line after the line has been shipped.
- Require all return orders, identified by order type = Return, are shipped to a central returns processing facility.

Background

Security Rules provided the functionality that Order Entry users needed to control changes to orders. However, they had certain limitations both in the philosophy and in implementation.

In Order Management there is a processing constraints framework usable by other products.

This framework provides to you the ability to:

- Control changes based on who is trying to make them (by responsibility)
- Define constraining conditions based on the state of related objects (for example, define a constraint on a line based on the state of the order)
- Control changes based on the value of a field - see Validation Templates section below
- Call custom PL/SQL code to determine whether a condition is true
- Constrain operations at any point in the process flow. In prior releases you could only control operations for certain hardcoded cycle actions.

Terminology

Processing Constraints are very powerful and setting them up is not difficult; however, knowledge of the following terms is helpful:

Entity A group of related attributes that roughly correspond to a table or a window in Order Management. The entities that can be managed using processing constraints are Order Header, Order Line, Order Price Adjustment, Line Price

Adjustment, Order Sales Credit, and Line Sales Credit. Entities correspond to 'objects' in the old security rules.

Attribute A field or column that belongs to an entity. For example, the ordered unit of measure is an attribute of the Order Line entity. Attributes correspond to fields in the old security rules.

Operation An action that you can take on an entity. The operations that can be controlled by processing constraints are Create, Update, Delete, Cancel and Split.

Processing Constraints Framework A generic facility that will enable you to define processing constraints for application entities and attributes. It includes the set of APIs that will enable you to query the existence of any constraint against the operations you wish to perform on that entity or its attributes

Validation Template Names a condition and defines the semantics of how to validate that condition. These validation templates can be used in the processing constraints framework to specify the conditions for a given constraint.

Record Set A record set is a set of records that are bound by some common attribute values (for example all lines on an order). In the processing constraints framework, when you define constraining conditions, you may specify a record set to be validated for a given condition as defined by its validation template.

Scope Given a record set and a condition, the scope (Any/All) defines how the validation should be performed on records of the record set. All will require the validation to be TRUE for every record in the set where Any will require the validation to be TRUE for at least one record in the set.

Conditions The test(s) which must be passed for a constraint to be active. For example, a condition for a constraint might be that the order is booked.

Defining Processing Constraints

The following graphic shows the Processing Constraints window.

Figure 10–1 Processing Constraints and Conditions tab

The screenshot shows the 'Processing Constraints' window for 'Oracle Order Management' and 'Order Line'. It displays a table of constraints and a section for conditions.

| Operation | Attribute | User Action | System Changes | User Changes | Seeded? |
|-----------|--------------------|-------------|----------------|--------------|-------------------------------------|
| UPDATE | Line Type | Not Allowed | | | <input checked="" type="checkbox"/> |
| UPDATE | Order Quantity Uom | Not Allowed | | | <input checked="" type="checkbox"/> |
| UPDATE | Ordered Quantity | Not Allowed | | | <input checked="" type="checkbox"/> |

Conditions: Applicable To

| Group # | Scope | Validation Entity | Record Set | Not | Validation Template | Seeded? |
|---------|-------|-------------------|------------|--------------------------|---------------------|-------------------------------------|
| 1 | Any | Order Line | Line | <input type="checkbox"/> | Booked | <input checked="" type="checkbox"/> |
| | | | | <input type="checkbox"/> | | <input type="checkbox"/> |
| | | | | <input type="checkbox"/> | | <input type="checkbox"/> |

User Message: Line is Booked

Navigate to the Processing Constraints window. N: Setup > Rules > Security > Processing Constraints.

Note that the window is divided into several regions. The top region has fields for the Application and the Entity. Any of the six OM entities are the valid values for the entity field. This is used for querying—you cannot create new entities. When you query an entity you will see all the constraints defined against that entity.

The Constraints region is where most of the details of a processing constraint are defined. The region enables you to view the seeded constraints, view, or update the constraints that were created for your company. You can create new constraints, but you cannot change the seeded constraints.

The Operation field can have the values of Create, Update, and Delete for any of the entities, Cancel for Order Header and Order Line entities, and Split for the Order Line Entity.

The Attribute field can only be used if the operation selected is UPDATE. You may enter a value here, and the constraint will only apply to that field. For instance you may define a constraint that affects only the warehouse field on the order line. If the Attribute field is left blank the constraint will be in effect for all the attributes of the entity. For instance, you may define a constraint which prevents updates to any of the fields of an order line.

The Action field allows you to select the action to be taken if the constraining conditions are met. The possible values are:

- Not Allowed: This is the default value. The user is not allowed to perform the operation.
- Require Reason: You can perform the operation if a reason is provided. This action is currently supported only for the Cancel operation or for the Update operation with the attribute 'Ordered Quantity.' When Audit Trail functionality is implemented in a future release it will allow the use of this action for the Update operation with any attribute. The list of reasons is an extensible Order Management Quick Code named CANCEL_CODE.

Use the System Changes field to indicate if system changes are allowed even if the constraining conditions are met. The system changes here refer to an attribute initially getting a default value or being re-defaulted when a source attribute changes. This is applicable only for attribute or field level UPDATE operations. The possible values are:

- Never after Insert: System changes are allowed to this field ONLY if the entity has not yet been saved to the database. This is the default value.
- Always: System changes are always allowed on the attribute

Use the User Changes field to indicate when the user performing the operation is constrained. This is applicable only for attribute or field level UPDATE operations. The possible values are:

- Never after Insert: You can change this field ONLY if the entity has not yet been saved to the database. This is the default value.
- Always: You can never enter a value for this attribute, even if the entity (for example an order) is being created for the first time.

The Seeded? Field indicates whether the constraint was included with the OM system as it was installed. Seeded constraints are included because they prevent

data integrity problems. Seeded constraints cannot be updated; operation, field, action or the list of responsibilities attached to these constraints cannot be modified. However, additional validation conditions can be included as long as they do not have the same group number.

The bottom section of the window has two tabbed regions - the Conditions region and the Applicable to region.

The Conditions region allows you to define the condition(s) that must be true for the constraint to fire. Unless the group of conditions are true, the constraint will not be active.

The Group Number field determines whether AND or OR logic is used to combine conditions. For conditions that should together evaluate to TRUE (AND conditions), enter the same group number. Define OR conditions by using different numbers.

The Scope field is evaluated with the Record Set field to determine if the condition is true. The possible values are:

- ANY: If the record set on this validation condition can select multiple records, then this condition should be TRUE for AT LEAST ONE of the records. For example you can evaluate a condition against any line on an order: If any line on the order is canceled...
- ALL: If the record set on this validation condition can select multiple records, then this condition should be TRUE for ALL the records. For example you can evaluate a condition against all lines on an order: If all lines on the order are canceled....

The Validation Entity is the one for which the condition is evaluated. The validation entity can be the constrained entity (displayed in the Entity region) or any related entity. For example, the constrained entity could be an order line and the constraint could be evaluated based on characteristics of the validation entity order header.

Select the Record Set and based on the selected scope, the conditions will be evaluated for any or all of the records in the set. An example of a seeded record set is a ship set. You may define additional record sets as needed. NOTE: if the validation entity on the condition is different from the constrained entity, then only the record set based on the primary key for the validation entity will be available in the LOV.

Check the NOT Box to create a NOT condition. For example if the condition is Booked, checking this flag will evaluate the condition NOT Booked.

Select the Validation Template to defines how this condition is to be evaluated. A section on defining validation templates follows.

The Seeded? Box is checked for the conditions that were included with the OM system as it was installed. These conditions cannot be updated. Also, the user cannot define new AND conditions with the same group number as a seeded condition.

The User Message is displayed when an attempt is made to violate a constraint. The message is specific not just to the constraint but also to the specific condition that was violated. For example, you might create a user message of line has been booked. If the constraint was not to allow update of the item field on the order line if the line had been booked, the complete error message displayed at run time is: You are not allowed to update the item; line has been booked.

The following screen shows the Processing Constraints window again, this time with the Applicable To tab selected. Use this tab to define which responsibilities the constraint applies to.

Figure 10–2 Processing Constraints and Applicable tab

Application: **Oracle Order Management**
Entity: **Order Line**

Constraints

| Operation | Attribute | User Action | System Changes | User Changes | Seeded? |
|-----------|------------------|---------------|----------------|--------------|-------------------------------------|
| UPDATE | Ordered Quantity | Require Re... | | | <input type="checkbox"/> |
| UPDATE | Ordered Quantity | Require Re... | | | <input type="checkbox"/> |
| UPDATE | Ordered Quantity | Not Allowed | | | <input checked="" type="checkbox"/> |

Conditions **Applicable To**

☐ All responsibilities
☒ Authorized responsibilities
☐ Constrained responsibilities

Release Management

If the button for All Responsibilities is selected, then the constraint will apply to all users. No one will be able to perform the constrained action. All seeded constraints are applicable to all responsibilities.

If you select the Authorized Responsibilities button, then only the responsibilities that you list will be allowed to perform the action. All other users will be stopped from performing the action by the constraint.

If you select the Constrained Responsibilities button, then all users except for the responsibilities defined will be able to perform the action. The users that you list will be stopped from performing the action by the constraint.

There are two other forms that are used in setting up processing constraints. These are the Validation Templates window and the Record Sets window. The validation

templates and record sets you create, as well as the seeded ones can be used in the Processing Constraints window as described above.

Defining Validation Templates

Figure 10–3 Validation Template

Validation Templates

Application: Oracle Order Management

| Entity | Template Name | Seeded? | Short Name | Description | Validation Type |
|------------|---------------|-------------------------------------|------------|------------------------------|---|
| | | | | | WF API Col |
| Order Line | ATO | <input checked="" type="checkbox"/> | ATO | is ATO | <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| Order Line | ATO Component | <input checked="" type="checkbox"/> | ATOCOMP | Options and classes under an | <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| Order Line | Booked | <input checked="" type="checkbox"/> | BOOKED | Line Booked | <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| Order Line | Cancel Line | <input checked="" type="checkbox"/> | CANLINE | Cancel Line | <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| Order Line | Closed | <input checked="" type="checkbox"/> | CLOSED | Line Closed | <input type="radio"/> <input type="radio"/> <input type="radio"/> |

Validation Semantics

| Column | Validation Op | Value String |
|----------|---------------|--------------|
| ATO Line | Is Not Null | |
| | | |
| | | |

Navigate to the Validation Templates window. N: Setup > Rules > Security >Validation Templates.

This window is also divided into several regions. The top region displays the Application field. The Validation Templates region has one row for each validation template, and each row has several fields. The Entity field is one of the six OM entities. Check this entity to determine if the condition is true. Give the validation template a name in the Validation Name field, a short name in the Short Name field and a description in the Description field. These are user defined. The short name cannot be changed once the validation template has saved. The Seeded? Box is

checked if the validation template is seeded by Oracle development. Seeded validation templates cannot be modified.

The Validation Type field is a group of radio buttons with the possible values of WF, API and COL. The available fields in the Validation Semantics region of the window change depending on the selection that you make from this group. If you select WF, then the validation is based on the status of a workflow activity. An example of this is the seeded validation template Booked that is based on the status of the Booked activity of the order header workflow. If you select API, then PL/SQL code is called to evaluate whether the validation template is true. There are several seeded validation templates that call APIs including the Lines Exist template that determines if lines have been entered for an order. If you select COL then validation is based on the value of a field. For example, the condition will be true if the field order type has a value of Standard.

Figure 10–4 Validation Semantics for Validation Type WF

The screenshot shows a window titled "Validation Semantics" with a dark gray header. Below the header, there are four labeled fields: "Item Type", "Activity", "Status", and "Result". Each field has a corresponding input area. "Item Type" is set to "OM Order Header", "Activity" is set to "Invoice Interface - Header Level", "Status" is set to "Complete" (indicated by a dropdown arrow), and "Result" is an empty text box.

| Field | Value |
|-----------|----------------------------------|
| Item Type | OM Order Header |
| Activity | Invoice Interface - Header Level |
| Status | Complete |
| Result | |

Figure 10–4 depicts the Validation Semantics for Validation Type WF. The Item Type field is for display purposes only and shows the workflow item type associated with the entity. The Activity field is the name of the workflow activity for which you are checking the status. The Status and Result fields are the attributes of the workflow activity that will make the validation template return a true value. In Figure 10–4, the validation template would be true if the order header had an activity called Invoice Interface - Header Level which had completed with any result.

Figure 10–5 Validation Semantics for Validation Type API

| Validation Semantics | |
|----------------------|--------------------------|
| PL/SQL Pkg | OE_TRANSACTION_TYPES_PKG |
| Procedure | VAL_ORD_CHANGE |

Figure 10–5. Depicts the Validation Semantics for Validation type API. Enter the validation semantics for validating the API for return value TRUE. (This may be used for complex validations.)

- Database Package: Enter name of the data package
- Procedure Name: Enter the name of the API

All validation APIs should be written with a framework defined signature format

PROCEDURE YourValidationAPI

```
(p_application_id in number,
p_entity_short_name in varchar2,
p_validation_entity_short_name in varchar2,
p_validation_tmplt_short_name in varchar2,
p_record_set_short_name in varchar2,
p_scope in varchar2,
x_result out number);
```

x_result returned should be 1 if the condition is valid and should be 0 if condition is NOT valid.

The procedure should push all error messages (if any) into OE_MSG_PUB Stack. It can reference the record being constrained by referring to the global record variable in the entity's constraint API package. The naming conventions are as follows.

Entity's constraint API package Name:

ApplicationShortName_Entity_Short_Name_PCFWK

(e.g. OE_HEADER_PCFWK)

global record variable name: g_record

(e.g. for the entity HEADER, the variable name will be OE_HEADER_PCFWK.g_record)

Figure 10–6 Validation Semantics for Validation Type COL

Validation Semantics

| Column | Validation Op | Value String |
|----------------------|---------------|--------------|
| Source Document Type | = (Equal To) | Internal |
| | | |
| | | |

Figure 10–6. Depicts the Validation Semantics for Validation Type COL. Enter the Column Name in the Column field. The Validation operation can be one of the following:

- = (Equal To)
- <> (Not Equal To)
- Is Null
- Is Not Null

The Value String can be any value. An example of validation semantics for a column is:

Column - Order Type
Validation - = (Equal To)
Value String - Standard

This would return TRUE for all orders with type Standard. Note that it wouldn't work if you typed a value string of STANDARD (it must match exactly).

Defining Record Sets

The window for creating record sets is depicted in Figure 10–7. This window is also divided into several regions.

Figure 10–7 Record Sets

The screenshot shows the 'Record Sets' window for 'Oracle Order Management'. It contains a table with the following data:

| Entity | Seeded? | Record Set | Short Name | Description | Based On Primary Key? |
|---------------------|-------------------------------------|---------------|------------|-----------------------------------|-------------------------------------|
| Order Line | <input checked="" type="checkbox"/> | Configuration | CONFIG | Line Configuration | <input type="checkbox"/> |
| Order Line | <input checked="" type="checkbox"/> | Line | LINE | Order Line | <input checked="" type="checkbox"/> |
| Order Line | <input checked="" type="checkbox"/> | Order | ORDLINS | All lines for one order | <input type="checkbox"/> |
| Order Line | <input checked="" type="checkbox"/> | Ship Set | SHIPSET | Ship Set | <input type="checkbox"/> |
| Order Price Adjustm | <input checked="" type="checkbox"/> | Order | HDRADJS | Price Adjustments for one order h | <input type="checkbox"/> |

Below the table is a section titled 'Matched Columns For Record Selection' with a 'Column' header and several empty rows for input.

The top region has the name of the application, Oracle Order Management.

The Record Sets region has a row for each record set. The Entity field will be one of the six OM entities. Each record in the record set will be of this entity. For example you can make a record set of lines or orders. The Seeded? Box is checked if the record set is seeded by Oracle development. This flag is not modifiable by the user, and the seeded record sets cannot be modified by the user.

Give the record set a name in the Record Set field, a short name in the Short Name field and a description in the Description field. These are user defined. You cannot change the short name once the record set has been saved. Select the Primary Record Set? Box if this record set is selected using the primary key. There can be only one primary record set for a given entity.

At the bottom of the window is the Matched Columns for Record Selection region. Enter the name of the columns that match from the validated record so that multiple rows can be selected from the validated entity's table. For example,

matching the Header ID and Ship Set Number of the order lines entity will select all order lines in the same ship set.

Concurrent Program

Creation of new validation templates or record sets, require the Create Validation Packages concurrent program to run. Run this program from the Tools option on the menu bar of either the Validation Templates or Record Sets window or from the navigation menu by selecting Setup -> Rules -> Generate Constraints Package.

Report

A report, Processing Constraints Listing, lists defined Processing Constraints. It replaces the old OE Security Rules Listing. It has the following parameters:

Entity The entity that is constrained.

Attribute The attribute that is constrained. Enabled only if an entity is selected for the previous parameter.

Operation The operation that is constrained. Enabled only if the attribute parameter is not selected.

Validation Entity Only include constraints that have conditions based on this validation entity. Enabled only if the entity parameter is selected.

Record Set Only include constraints that have conditions set up for this record set. Enabled only if the validation entity parameter is selected.

Validation Template Only include constraints that have conditions using this validation template. Enabled only if the validation entity parameter is selected.

Seeded If this field is left blank, both seeded and non-seeded constraint conditions are listed. If you select Yes only seeded conditions are listed. If you select No only non-seeded conditions are listed.

All of these parameters are optional. If none are specified, the report will include all values the report.

Migration/Upgrade from Security Rules

Because of the magnitude of the changes to the fundamental architecture between Security Rules and Processing Constraints, the decision was made to not upgrade any user-defined Security Rules. Because of the inherent differences between Processing Constraints and Security Rules, the seeded processing constraints do not mimic the seeded OE Security Rules. See the Functional Differences section of this document for more details. In release 11i the only processing constraints that are seeded are the ones which are required to ensure data integrity.

Companies that are implementing Order Management will need to spend more time evaluating their Processing Constraints setup than companies that implemented Order Entry. Companies that are upgrading from Order Entry to Order Management should include some time in their upgrade project plan for setting up the Processing Constraints.

Examples

Let's see how you can use Processing Constraints to meet real business needs. Here are the setup steps and results for the five business scenarios mentioned at the beginning of this paper.

No one can change the customer purchase order at the line level; your company requires that one sales order can relate to only one customer purchase order.

Navigate to the processing constraints window. Find the constraints for the application Oracle Order Management and the entity Order Line. Add a new line in the constraints region with the following values:

Table 10–1 Order Line Constraints

| Operation | Attribute | User Action |
|-----------|-------------|-------------|
| UPDATE | Customer PO | Not Allowed |

Save the constraint. This is the simplest type of constraint to create. It applies to all responsibilities in all conditions. The user will receive a message when they try to change the purchase order number for a line.

No one can add a line to an order after any of the lines on the order have been invoice interfaced.

Navigate to the processing constraints window. Find the constraints for the application Oracle Order Management and the entity Order Line. Add a new line in the constraints region with the following values:

Table 10–2 Order Line Constraints

| Operation | Attribute | User Action |
|-----------|-----------|-------------|
| CREATE | [Blank] | Not Allowed |

In the Conditions region, enter a line with the following information:

Table 10–3 Order Line Conditions

| Group # | Scope | Validation Entity | Record Set | Validation Template |
|--------------|-------|-------------------|------------|---------------------|
| [Any Number] | Any | Order Line | Order | Invoice Interfaced |

For the user messages enter: A line on the order has been invoiced.

Save the constraint. This constraint has a condition, so it will only be activated if the condition is true. The condition will be true if any of the lines on the order have been invoice interfaced. This constraint is a good example of a using a record set. It applies to all responsibilities. The user will receive a message when they try to create a new line for an order with lines which have been invoice interfaced. The message will say: The order line cannot be created because: A line on the order has been invoiced. Notice that the error message includes the user message that you entered for the condition.

A reason is required to cancel an order line after it has been booked.

Navigate to the processing constraints window. Find the constraints for the application Oracle Order Management and the entity Order Line. Add a new line in the constraints region with the following values:

Table 10–4 Order Line Constraints

| Operation | Attribute | User Action |
|-----------|-----------|----------------|
| CANCEL | [Blank] | Require Reason |

In the Conditions region, enter a line with the following information:

Table 10–5 Order Line Conditions

| Group # | Scope | Validation Entity | Record Set | Validation Template |
|--------------|-------|-------------------|------------|---------------------|
| [Any Number] | Any | Order Line | Line | Booked |

For the user messages enter - The order has been booked.

Save the constraint. This constraint has a condition, so it will only be activated if the condition is true. The condition will be true if the order has been booked. It applies to all responsibilities. All users will be required to enter a reason when they cancel a line which has been booked.

Only the Customer Service Manager can change the discount percentage on an order line after the line has been shipped.

Navigate to the processing constraints window. Find the constraints for the application Oracle Order Management and the entity Line Price Adjustment. Add a new line in the constraints region with the following values:

Table 10–6 Line Price Adjustment Constraints

| Operation | Attribute | User Action |
|-----------|-----------|-------------|
| UPDATE | Percent | Not Allowed |

In the Conditions region, enter a line with the following information:

Table 10–7 Line Price Adjustment Conditions

| Group # | Scope | Validation Entity | Record Set | Validation Template |
|--------------|-------|-------------------|------------|---------------------|
| [Any Number] | Any | Order Line | Line | Ship Confirm |

For the user messages enter: This line has been shipped

Go to the Applicable to tab and select the Authorized Responsibilities radio button. Enter Customer Service Manager in the table below the radio buttons.

Save the constraint. This constraint has a condition, so it will only be activated if the condition is true. The condition will be true if this line has been shipped. It applies to all responsibilities except for the Customer Service Manager responsibility. Note that this is not a seeded responsibility. This example assumes the responsibility was created using the System Administrator Define Responsibility functionality. Any user not logged in under the Customer Service Manager responsibility will receive a message when they try to change a discount percentage for a line which has been shipped. The message will say “The percent cannot be updated because: This line has been shipped.”

Your company requires that all return orders, identified by order type = Return, are shipped to a central returns processing facility.

This example assumes that you have used the defaulting rules framework to create a rule that will default the warehouse to Wichita for all the lines on orders of type Return. For details on how to create a defaulting rule, see the white paper Using Defaulting Rules in Oracle Order Management.

To create the constraint, first create a new validation template for orders with an order type of Return. Navigate to the validation templates window. Find the validation templates for the application Oracle Order Management. Enter a new line for the in the validation templates region with the following information:

Table 10–8 Validation Template Constraints

| Entity | Template Name | Short Name | Description | Validation Type |
|--------------|---------------|------------|----------------------|-----------------|
| Order Header | Return Order | RETURN | Order of type Return | COL |

In the validation semantics region enter the following:

Table 10–9 Validation Template Semantics

| Column | Validation Op | Value String |
|------------|---------------|--------------|
| Order Type | = (Equal To) | Return |

Now navigate to the constraints window to create a constraint using the new validation template. Find the constraints for the application Oracle Order

Management and the entity Order Line. Add a new line in the constraints region with the following values:

Table 10–10 Order Line Constraints

| Operation | Attribute | User Action |
|-----------|-----------|-------------|
| UPDATE | Warehouse | Not Allowed |

In the Conditions region, enter a line with the following information

Table 10–11 Order Line Conditions

| Group # | Scope | Validation Entity | Record Set | Validation Template |
|--------------|-------|-------------------|------------|---------------------|
| [Any Number] | Any | Order Header | Order | Return |

For the user messages enter: All returns are processed in Wichita

Save the constraint. This constraint has a condition, so it will only be activated if the condition is true. The condition will be true if the order type is Return, because this is the way you created the validation template. This assumes that your company has created a Transaction Type for an order with a name of Return. It applies to all responsibilities. Any user who tries to change the warehouse on an order line will receive a message which states: The warehouse cannot be updated because: All returns are processed in Wichita.

Credit Cards and iPayment

Topics covered in this chapter include the following:

- [Overview](#) on page 11-2
- [Introduction](#) on page 11-2
- [Background](#) on page 11-2
- [Features Provided](#) on page 11-3
- [Set Up](#) on page 11-8

Overview

Oracle Order Management's credit card authorization functionality enables orders to be accepted from many new channels, including web stores. Order Management seamlessly obtains authorization for orders where a credit card is used as the payment vehicle, and passes the necessary information to Receivables for actual funds capture. You can indicate that an order is being paid using a credit card, and authorize those transactions through Oracle iPayment. You can also collect the funds from the credit card at the time of booking, rather than waiting for invoicing to occur. This chapter outlines the key functionality delivered in this component of Oracle's eBusiness suite.

Introduction

Oracle Order Management offers enhanced functionality in the area of payment verification. You can use a credit card to pay for items on an order, and either obtain authorization from the issuing institution through Oracle iPayment, or actually collect the funds. This paper explains the many features of Oracle Order Management's credit card solution, including the key setup options and how they work, and offers some insight into how you could use them in your company.

Background

Credit checking and credit card authorization help ensure that your company receives payment for goods and services that are ordered. In Oracle Order Management, Credit Card functionality is combined with Credit Checking under Payment Verification. Verify Payment determines if the payment type is credit card or other. If the payment type is a credit card, iPayment processes the information. If the payment type is not a credit card, credit checking is done.

Since Release 11, Oracle Receivables has contained functionality to enable users of Web Customers and other web front-ends to capture and account for credit card payments. Before Order Management was enhanced to provide credit card data to AR, Receivables obtained credit card information through a pre-processor that ran before Autoinvoice Import. That pre-processor read Order Entry and iPayment tables to obtain the necessary data to do the credit card capture functions. The credit card features of Oracle Order Management eliminate the need to run Receivables' pre-processor, but still relies on Receivables to do all the accounting and collection activities required to process actual credit card payments.

Features Provided

Oracle Order Management provides features that enable you to accept a credit card as a method of payment for an order. You can enter or select one credit card per order to be used for paying for the entire order amount.

Authorization Flow

The following is an iPayment authorization flow example:

- During Order Header entry, choose a payment TYPE of Credit Card.
- The customer's primary credit card number, expiration date and cardholder's name default in from Accounts Payable Bank Accounts tables. You can override the primary credit card, choosing from other credit cards that have been set up in AP Bank Accounts for this customer, or enter a new credit card information.
- Enter the rest of the order information, including all the line information and book the order.
- Order Management calls the iPayment server to obtain authorization for the full amount of the order, including tax and freight and other charges, less commitments.
- iPayment returns an approval or a denial, along with a risk code. The authorization code is recorded on the order header, and the order proceeds in its workflow. If authorization is denied or an unacceptably high risk factor is returned, Order Management places the order on hold until the problem is resolved.
- The order is picked and shipped, and during Invoice Interface, the credit card information is passed to Receivables. AR handles the funds capture and all accounting transactions.

Prepaid Flow

In Oracle Order Management, you can collect funds for credit card orders at the time of booking, rather than having to wait for Invoicing to occur. This option is most appropriate for non-shippable products and services, as some credit card regulations require that credit card funds not be collected until shippable goods are shipped. The following is an iPayment authorization prepaid flow example:

- Choose a payment type of Credit Card during Order Header entry.
- Choose payment terms that have the prepaid attribute checked.

- The customer's primary credit card number, expiration date and cardholder's name default in from Accounts Payable tables. You can override the primary credit card and select from other credit cards that have been set up in AP Bank Accounts for this customer, or enter a new credit card number along with any other required information.
- Enter the rest of the order information, including all the line information and book the order.
- Oracle Order Management calls the Receivables Receipt API to capture funds from the credit card and create a receipt for those funds. The amount captured is the full amount of the order, including tax and freight and other charges less commitments.
- Receivables returns a payment set ID that references the receipt that was created. If any error occurs in this processing, Oracle Order Management places the order on hold until the problem can be resolved.
- At any time during the processing of the order, any Receipts in Receivables tied to this order can be viewed from Order Management by using the View Receipts action from the Order Header. This action opens the Receivables Receipt window.
- The order is fulfilled and the credit card information and the payment set ID are passed to Receivables during Invoice Interface. AR matches the receipt with the invoice and performs all accounting transactions.

Types of Authorizations

There are three types of authorizations that can be done from Order Management.

1. A credit card can be authorized automatically, as described above. For this to occur, the order type must be setup for credit checking at Booking or at Shipping. The authorization will occur automatically during the Payment Verification processing.
2. A credit card can also be authorized on-line, by choosing the Process Payment order action from the Action button on the Sales Order window. If this is done, authorization is attempted using the iPayment interface, and the results are processed the same as for automatic authorization.
3. Problems, such as those with hardware, software, servers or networks, may require an authorization to be obtained manually. This might be necessary because of hardware or software problems with the link to the iPayment server or out to the credit card networks. Some back-end processors return an error

instructing the user to call for authorization. In any event, an authorization might be obtained via a telephone call, or a dial-up device. In that case, the authorization code can be keyed on the Order Header, and the order will be considered to be authorized. This Voice Authorization results in a call to iPayment to record the authorization, so that AR can later capture funds against it.

Timing of Authorization

The authorization call to iPayment takes place at Booking, if there is a Booking Credit Check Rule set up for the order type. A second authorization occurs during Pick Release, if a Shipping Credit Check Rule is set up for the order and if no previous unexpired or uncaptured authorization exists on the order. For Drop Shipment orders, the second authorization evaluation occurs during Purchase Release. If the value of the order increases after the Booking authorization, and if the previous authorization has expired, then another authorization for the full value of the order will take place at the time the order changes are saved.

Authorization Results

The authorization call to iPayment returns a success or failure, as well as a risk code. A successful authorization will return an authorization code and authorization date to be stored on the order header. The authorization code can be viewed by users with appropriate security. If an authorization fails, the order is placed on Credit Card Authorization Failure hold. If the authorization was done on-line or at Booking, you will be notified of the failure by a message. The message will indicate the type of error encountered, such as communication error, invalid credit card number, or insufficient funds. If there was a communications error, the action can be retried using the Action button. An invalid credit card number or insufficient funds error can be remedied by changing the credit card number at the header and then re-authorizing using the Action button.

Returns and Mixed Orders

In Order Management, you can use a credit card as a Payment Type on returns and also on mixed orders – that is, orders containing both outbound and return lines. In the case of mixed orders, the amount authorized is the total amount of the outbound order lines, not the net of outbound and inbound. For pure return orders, a credit card number can be recorded, but no processing is done with it. The credit card information is passed to Receivables for return lines, although AR does not automatically create credit card refunds based on this data. AR does provide functionality to process manual credit card refunds. The credit is generated using

the information on the referenced invoice. It is recommended that you process credit card refunds manually or to choose a different payment type for returns.

Copy Orders

Copy Orders has been enhanced in Order Management to give a choice whether or not to copy credit card information when an order header is being copied. There is a checkbox on the Copy Header window called Credit Card details where you can indicate your desire to copy. Data to be copied are Credit Card Number, Card Holder's Name, Credit Card Type and Expiration Date. This checkbox is enabled only when you have All or Limited credit card privileges, as set in the profile option. The checkbox is seeded as unchecked to allow users to make a conscious decision to copy such information.

Order Changes and Partial Shipments

Authorization Flow Credit card authorization is obtained for the total order amount. If order changes after authorization result in the total order amount being decreased, no further authorization occurs. If the order total increases, another authorization for the total amount is done if the previous authorization has expired. iPayment no longer supports void transactions, so in order to not block excess funds which would occur if multiple authorizations are done, reauthorization is done only if the previous authorization has expired. If an order is authorized and then only partially shipped, the shipped amount may go to Receivables for capture before the backordered quantities ship. If that occurs, Receivables captures only the amount of the shipped lines, using the original authorization code. An authorization code can only be used once for a capture transaction. When the remainder of the order is Shipped (Pick Released), a check is made to see if there is an unexpired and uncaptured authorization on the order. If not, then the remaining amount is authorized again. See the examples below for further clarification.

Prepaid Flow Credit card funds capture takes place for the total order amount minus commitments. If order changes occur after the funds capture occurs, Oracle Order Management calls the Receivables Receipt API to create incremental receipts or creates refunds, if the order amount is reduced.

Holds

Authorization There are two holds seeded in Order Management for credit card authorization processing:

- Credit Card Authorization Failure is applied if authorization fails
- Credit Card High Risk is applied if authorization is successful but the risk score is higher than the threshold set in the profile option.

Both of these holds can be released manually, but can be reapplied automatically if a subsequent authorization fails. These holds can be removed with a manual authorization.

Prepaid There are three holds seeded in Order Management for the Prepaid Credit Card feature:

- Pending Process Payment is placed if an order needs to have a Receipt processed asynchronously
- ePayment Failure is placed when a failure occurs in the capture and receipt creation process that needs human intervention to resolve
- ePayment Server Failure is placed when a retryable error occurs in the capture process.

The concurrent program Credit Card Process Pending Payments can be scheduled to process ePayment holds.

Risk Management

iPayment has a Risk Management feature, Oracle iRisk, that can help manage exposure to questionable transactions. Oracle iRisk allows you to define any number of risk factors to verify the identity of your customers, assess their credit rating, and manage risk in a secure online environment. Set up these factors and a risk calculation formula when you set up iPayment. Authorizations from Order Management use the default risk formula setup in iPayment. Authorization returns a risk score, in addition to an authorization code. The score can range from 0 to 100, with 0 referring to a risk free transaction and 100 referring to a high risk authorization. If the risk score exceeds the risk threshold you have set up in the corresponding profile option, the order is automatically placed on Credit Card High Risk hold.

Importing Orders and CRM Integration

You can import orders with a payment type of credit card. There are columns in the header interface tables for all of the credit-card related data. You can import orders that are already authorized by populating the authorization code and authorization date columns. This supports the business case where you might have a legacy

system or some other feeder system that has already done the authorization sending orders into Order Management for fulfillment.

Similarly, orders coming from CRM or other front-end systems that have been pre-authorized can be entered into Order Management via the Process Orders API. Those orders will not be re-authorized, unless re-authorization is needed at Shipping or because of increases in the order value after authorization.

Commitments

Commitments are a type of prepayment transaction recorded in Oracle Receivables. Order Management enables you to specify that a line is to be paid from funds paid from a commitment by selecting a commitment number on the order line. If commitments are used on orders that have a payment type of credit card, the amount to be authorized or collected is the total order amount minus the commitment amount on lines with commitments. This supports the business case where some lines are prepaid with commitments and the customer gives a credit card number to cover the amount of the order not paid by the commitment.

Set Up

To use credit card authorization or Prepaid credit cards in Order Management, you must install and set up the iPayment server which in turn communicates with the credit card provider networks. In addition, create at least one Credit Check Rule in Order Management and set up your order transaction types to use Credit Checking. Credit Card authorization will not occur automatically unless a credit card rule is present on the order type. Following are other key setups required or that affect the operation of credit card authorization.

See

Oracle iPayment Implementation Guide

Oracle iPayment Concepts and Procedures

Profile Options

OM: Credit Card Privileges

This profile, updateable at the site, application and responsibility level, controls the view and update privileges for credit card information on orders. Possible values are:

All View the complete credit card number and authorization code on the Order Header and the Order Summary window, and have full update capabilities. This means you can type in new credit card numbers, and obtain manual and online authorizations.

Limited View the credit card number and authorization code on the Order Header and the Order Summary window in a masked fashion – only the last four digits are displayed. You do have full update capabilities, similar to those of a user with All privileges.

None View only the credit card number and authorization code on the Order Header and the Order Summary window in a masked fashion – only the last four digits are displayed. In addition, you cannot key in credit card numbers or obtain manual or online authorizations. This is the default.

OM: Estimated Authorization Validity Period

This profile represents the number of days an authorization is expected to remain valid. Since all of the various iPayment vendors do not provide an expiration date for authorizations, it is necessary to set a default number of days. The actual expiration time for authorizations varies by credit card provider. The default for this profile is 21 (days). When Verify Payment is called at Shipping, the code checks to see if the original authorization has expired. If it has, it will obtain another authorization. If it has not, it will not re-authorize. The expiration is computed by adding this profile option to the authorization date and comparing to the system date.

OM: Risk Factor Threshold for Electronic Payments

This profile is a value between 1 and 100, and represents the cutoff point where orders that authorize with a risk factor will be placed on Credit Card High Risk hold. The default is 50. For example, assume an order authorizes successfully, but returns a risk factor of 51. Since its risk code is above the threshold of 50, it will go on hold. See the section above on Risk Management.

OM: Payment Method for Credit Card Transactions

This profile option represents the default payment method used by the Invoice Interface to pass to Receivables for orders that have a payment type of credit card. It is used if the customer does not have a primary payment method recorded. There is no default, but this profile must be populated prior to interfacing orders with credit

cards to Receivables. There is a LOV for this profile, and validation is against all active payment methods in AR where the payment type is Credit Card.

OM: Process Payment Immediately at Booking

This profile option is used by the Prepaid Credit Card feature to indicate whether or not you want the Receipt creation and credit card capture to occur synchronously (Yes) or asynchronously (No).

Bank Accounts

When you select a Payment Type of Credit Card on the order header, the primary bank account for the customer in Accounts Payable provides default information for credit card number, cardholder's name and expiration date. A LOV on the credit card number field on the order header will be based on AP's bank account table where `branch_id = 1`. This is AP's convention for indicating a credit card type of bank account. You can key in a different credit card number to be used, and when the data is saved, or committed, to the database that account will be created as a new bank account for the customer in AP.

Payment Terms

If you use the Prepaid Credit Card feature, you must set up at least one Payment Terms in Receivables with the prepaid credit card attribute checked. Oracle Order Management only invokes the Prepaid Credit Card processing if the order header payment terms is a prepaid payment terms. If an order has a header payment terms indicating prepaid credit card, then any payment terms at the order line level are ignored. They are not even passed to Receivables at Invoice Integration.

Lookups

There are several OM lookups that are used by Credit Card authorization. There is an OM lookup for Credit Card Type— this is seeded with the most common credit card types such as AMEX or Visa. You can extend this list. Payment Type is another OM lookup. It is seeded with Credit Card, Cash and Check and cannot be extended. iPayment integration logic in OM is triggered when Payment Type = Credit Card.

iPayment Setup

There is an entire manual devoted to implementing the iPayment server. Several critical things to setup that influence Order Management are the risk management

factors and formula and the merchant bank account. Other setup information can be found in the *Oracle iPayment Implementation Guide*.

Reports

There are no new or existing reports in Order Management that list credit card information.

Implementation and Considerations

Credit Checking Must be Active

Credit checking must be active for the order type you are using with credit cards. The calls to iPayment for authorization are included in the Verify Payment code, which is only called if there is a credit checking rule on the order type. Credit card authorization does not care about the payment terms on the order or lines, or whether the customer or bill-to has credit checking turned on.

Encryption

In Order Management, credit card information is masked from view by unauthorized users based on the setting of the OM: Credit Card Privileges profile option. This occurs in the User Interface only: credit card information is not encrypted in the database at this time. You must restrict direct access to the database to prevent access to sensitive information stored.

Under Authorization

Order Management can have only one active authorization per order at any given time. If the order value increases on an order with an unexpired and uncaptured authorization, Order Management does not perform additional authorization. Because of this, it is possible that insufficient funds may be available on the credit card for the order when it gets to AR for capture. AR will still attempt to authorize and capture the full amount if the invoiced amount exceeds the authorized amount.

If it is a common practice in your business to have users add products to credit card orders after they have been authorized but before the typical authorization expiration, you will need to assess the risk of non-payment. If this is deemed to be an issue, you might want to adopt a practice of requiring that users create new orders for the additional lines or quantity, so that those amounts will be authorized. This does not apply to Prepaid credit card orders, as any incremental funds are captured or refunded as changes are made.

What if iPayment isn't Installed?

If iPayment is not installed, but a payment type of credit card is entered on the order, Verify Payment does not return an error or place the order on hold. Credit checking will not occur either, since credit card authorization will be invoked instead. The Authorize Payment action on the Action button will not be available. The only way to authorize a credit card without iPayment or customization is to manually enter the authorization code. In effect, if you don't have iPayment installed, the credit card fields on the order header are for information only. Credit card data is passed to Receivables; however, even if iPayment is not installed, which may cause problems in Autoinvoice.

If you don't have iPayment installed and you don't want to take the risk of entering credit card information that is not used, you can set up a Processing Constraint to prohibit users from saving data to the credit card fields. See [Order Management Processing Constraints](#) for more information.

Oracle Order Management always treats credit card information as automatic payment. It is therefore recommended that you should not enter any credit card information in the sales order if the provided credit card information is not intended for automatic payment. You can make use of order or line level descriptive flex fields if credit card information is intended for information purposes only.

Debugging Tips

If you are experiencing problems getting the iPayment integration to work in your environment, it can be very helpful to Oracle Support if you generate a log file of what is happening. Here are specific steps to generate a debug file while reporting iPayment integration issues:

1. Log into the application using a new session.
2. Open the sales order window and query the order.
3. From Tools menu click on Debug.
4. Choose Turn Debug On.
5. From Tools menu click on Debug.
6. Choose Initialize Debug Cache.
7. From Tools menu click on Debug.
8. Choose Write to a File. Make a note of the default file name—you cannot change it. Debug messages are logged into this file.

9. Perform the steps which are failing—in this case it may be payment authorization through booking/ picking/ manual.
10. Turn debug off.
11. Provide the debug file to Oracle Support.

Examples

The following examples assume an order type that has a Credit Check Rule assigned for both Booking and Shipping. Assume also the OM: Estimated Authorization Validity Period profile has been left to default to 21 days.

Note : These are authorization-only examples and do not apply to Prepaid Credit Card orders.

Simple order: Consider the case of a simple order that is authorized at Booking, pick released and shipped complete within one week with no changes to the order. One authorization is obtained for the entire order at Booking. No further authorization at Shipping occurs, because an unexpired and uncaptured authorization existed. The entire order interfaces to Receivables at one time. Receivables does the funds capture against the original authorization code.

Partial Shipment: This order consists of one line for a quantity of 10 with an extended amount of \$1000. The authorization obtained at Booking is for \$1000. Only 3 of the quantity of 10 is picked and ship confirmed and interfaced to Receivables. The remaining 7 were backordered. What occurs when the remainder of the order is pick released depends on whether Receivables has captured against the original authorization. If so, AR captures \$300 against the first authorization. At Pick Release of the remainder of the order, a new authorization is obtained for \$700 – the amount uncaptured. If AR has not done a funds capture at the time of the second Pick Release, OM will not reauthorize if the original authorization had not expired. Expiration is determined by calculating against the value of OM: Estimated Authorization Validity Period. Whether or not an authorization has had funds captured is determined by calling an iPayment API.

Cancellations: Consider the same order as in Partial Shipments above. However, after Booking, but before interface to Receivables, the order is cancelled. If the entire order is cancelled, OM will do nothing and the authorization will just be left to expire. On the other hand, if the order is partially cancelled, the part that is shipped and interfaced to Receivables will capture against the original authorization code

but for the amount shipped. The remainder—the amount canceled—will never authorize, as it has been canceled.

Mixed Order: This order consists of one outbound line for \$200 and one return line with a value of \$50. Therefore the order total is the net or \$150. The authorization at Booking will authorize for the full \$200.

Migration/Upgrade

There is no special upgrade performed for orders containing credit card information. Credit card information from old Order Entry orders are copied to the upgraded order. If the new upgraded order goes through Booking or Shipping and there is a credit check rule on the order type, then authorization is attempted.

Hold Management

Topics covered in this chapter include the following:

- [Overview](#) on page 12-2
- [Setup](#) on page 12-2
- [Process Flow](#) on page 12-4
- [Workflow](#) on page 12-7

Overview

In release 11*i* Oracle Order Management, applying and releasing holds can be performed directly from the Sales Order Pad. You can create holds based on a combination of two criteria, such as customer and item, or item and warehouse. You can manually send a notification through Oracle Workflow to specific individuals when an order hold is applied. A concurrent program can automatically release holds based on the Hold Until date. Additionally, you can track and view history information on holds at the order and/or line level.

When you prevent further processing on an order through an exception, you are placing a hold on the order. However, you can arbitrarily hold all orders for a specific customer or customer site, an individual order, or all order lines for a specific item. Furthermore, you can define holds that affect existing orders, future orders, or both. Holds can be placed automatically when certain metrics, such as credit limits, are violated. Holds can be automatically released by using Oracle Workflow once the order or line no longer violates the business metric. Oracle Order Management manages exposure to these various types of risks through this holds and releases functionality.

Setup

Profiles

OM: Modify Seeded Holds

This profile enables you to modify seeded hold attributes. Options are Yes or No. The default is No or Null.

OM: Notification Approver

This profile enables you to send approval or FYI notifications to a role. It can be set at any level—Site, Application, Responsibility, or User. For a different Approver role per Operating Unit, set the profile option at the responsibility level. Notifications generated by OM flows can be sent to this role via a seeded WF item attribute (Notification Approver). This item attribute is used as a place holder for storing role information. When the Header or line is created, the item attribute Notification Approver is set based on the profile option setting. If all approvals need to go to this role, you do not need to use the Utility - Set Notification Approver. If they do not then you can use this seeded utility to set the value of the item attribute Notification Approver to various values.

Note: Notifications can be sent via the workflow FYI Notification framework when an Order/line goes on hold. Release of the hold has to occur from an action selection on the Sales Order Pad. If a user places an order or line on hold manually and subsequently releases the hold they must perform Progress Order to move the order/line on in the workflow to the next activity.

OM: Schedule Line on Hold

This profile controls whether scheduling should attempt to schedule lines that are on hold. The default is set to No.

Workflow

Order Management comes with seeded Oracle Workflow approval processes. Review the seeded flows, activities and notifications to determine if the seeded data can meet your business needs. Typically, the Generic - Order Flow and Line Flows are used for standard orders. The user can modify this existing seeded workflows or create new workflows to include approval activities or wait-for-flow activities in order to safeguard processing orders that are on hold. Refer to the topical essay on Workflow at the end of this manual for details on setting up workflow processes.

Hold Lookup Codes

Set up your own codes for Hold Types, Holdable Header, and Line Activities for workflow in the Order Management Quickcodes window. To do this, navigate to the Order Management Lookup window: N: Order Management > Setup > Quickcodes > Order Management. Select the query manager (Flashlight icon) to view the existing codes or add a new code.

Reports

There are some seeded reports in Order Management for Holds. They include: Hold Source Activity Report, Lines on Credit Check Hold Report, Orders on Credit Check Hold Report and Outstanding Holds Report. You can run these reports by a variety of parameters, including, customer name, hold name, item, order, order type, etc.

Credit Check Rules & Profiles

When setting up credit checking rules, you have the ability to specify if you want to include orders currently on hold in the exposure calculation when the order flow

performs a credit check. To set this option, Navigate: Setup > Credit > Credit Check Rules and check the box for Include orders currently on hold.

Customers

In Receivables, when setting up a Customer, you can specify whether or not to perform credit checking for this customer by checking the credit check box in the profile. When you process orders for that particular customer and if you use an order type and payment terms that also call for credit checking, the credit check process will run and if they do not pass based on their credit limits, the orders will go on hold automatically. In addition, there is a Credit Hold check box on the Customer window. When checked, all orders for the customer will go on credit hold without going through credit check logic - a hold source is automatically created to put all that customers existing and future orders on hold. To activate credit check holds on a customer, navigate to the Order Management or Receivables responsibility, and select Customers > Standard. Either enter a new customer or find an existing customer, select the Profile: Transactions Tab and check the credit check and possibly the credit hold boxes. To perform credit checking, you will also need to set the credit limits for the customer in the Profile: Amounts Tab of the Customer window.

Process Flow

The process flows for holds in Oracle Order Management include the following:

Define Generic and Activity-Specific Holds

First Define a generic or activity-specific hold and assign the responsibilities that are authorized to apply or release the hold. A hold can be defined to be effective at certain steps of the order or line workflow or to be applied regardless of the stage of the orders flow. Because orders and returns are not affected by holds until they are applied, define all the holds you use in your business at once.

To define a generic and hold:

1. To define a generic hold, navigate to N:Order Management > Setup > Orders > Holds.
2. Enter a user defined hold name.
3. Enter a user defined description
4. Pick and select a previously defined hold Type such as User Hold.

5. Optionally, select the 'hold included items' check box. Hold included items allow the user to cascade the hold placed against a model to the 'included items' defined in the model.
6. Optionally, enter hold until dates.
7. Assign specific responsibilities to allow access to apply or release this hold.

Note: If the authorization region is left blank all users may apply or remove holds.

To define an activity-specific hold:

1. To define an activity-specific hold, Navigate to N:Order Management > Setup > Orders > Holds.
2. Enter a user defined hold name
3. Enter a user defined description.
4. Pick and select a previously defined hold Type such as User Hold.
5. Pick and select a workflow item, order header/order line.
6. Select a workflow activity.
7. Optionally, select the Hold Included Items check box. Hold included items allow you to cascade the hold placed against a model to the included items defined in the model.
8. If the hold is a line level hold you can select the Apply to Order and Line check box. This enables you to take advantage of line level activities at the order header level. For example, if there is an order that you need to hold up to pick release—which is not an order level action—you can check this flag and can then select the hold at the order header level, thereby allowing all lines to be processed up to pick release.
9. Assign specific responsibilities to allow access to apply or release this hold.

Note: If the authorization region is left blank all users may apply or remove holds.

By assigning a workflow item and activity, the hold will be honored based on where the activity is assigned. For instance, defining a hold with the workflow item as

Order Header and the workflow activity as Book Order, the order will be placed on hold when the order has been booked. You can create activity-specific holds at the line level for shipping activities, which include: Pack Line, Pick Line, and Ship Line. You can define holds with these activities to hold lines at those particular activities.

Define Hold Sources

A hold source allows you to apply a particular hold to a group of existing orders, returns or lines and to new orders and lines meeting your hold criteria. Hold Sources are created to hold all current and future orders for an item, customer, order, warehouse or customer site (Bill to or Ship To locations), Blanket Sales Agreement No or a combination two attributes.

To define a hold source:

1. To define a hold source, navigate to N:Order Management > Orders, Returns > Order Organizer.
2. Select the Tools menu, and choose Create Hold Source.
3. Use the Create Hold Source window to define the entity based on which the orders and lines can be placed on hold. This entity can either be Customer, Warehouse, Bill To Site, Ship To Site, Item or the Order itself. It can also be a combination of up to two entities. See [Create a Hold Source with Multiple Entities](#).
4. In the Criteria Tab, use the list of values to retrieve the hold defined in the previous step. This defaults the Hold Type and Description as defined from the hold. You can add a Hold Until Date and Comments and/or hold all existing or future orders/lines if needed.
5. Select a Hold Criteria. This can be any of the following: Customer, Warehouse, Bill To Site, Ship To Site, Item, or Order. Enter a value for the Hold Criteria based on the selected Hold Criteria, such as Item number or Order Number.

Create a Hold Source with Multiple Entities

Creating a Hold Source for Multiple Entities is the same as defining a single Apply Holds window except you must define two entities.

To define a hold source with multiple entities:

1. To define a hold source with multiple entities, navigate to N:Order Management > Orders, Returns > Order Organizer.
2. Select the Tools menu, and choose Create Hold Source.

3. Use the Create Hold Source window to define the entity based on which the orders and lines can be placed on hold. This entity can either be Customer, Warehouse, Bill To Site, Ship To Site, Item or the Order itself. It can also be a combination of up to two entities. Define two entities which orders and lines can be placed on hold based on the hold criteria defined.

For example, if you want to hold a specific item from being shipped to a customer, select the first Hold Criteria as Customer and the second as Item. This creates a hold source using that specific Customer and Item and does not process orders or lines that have that Item and Customer on it.

Order Management supports Hold Sources with up to two entities. The combinations of two supported entities are as follows:

- Item > Customer
- Item > Ship To Site
- Item > Bill To Site
- Item > Warehouse
- Item > Blanket Number
- Warehouse > Customer
- Warehouse > Ship To Site
- Warehouse > Bill To Site
- Blanket Number > Ship To Site
- Blanket Number > Bill To Site
- Blanket Number > Warehouse
- Blanket Number > Ship To Site
- Blanket Line Number

For more information on the application and management of holds see the *Oracle Order Management User Guide*.

Workflow

In release 11*i* Order Management, you can control the steps in your order process at which a hold is applied. Even with an exception, processing on an order can continue up to a certain step. More generally, when you place a hold against an

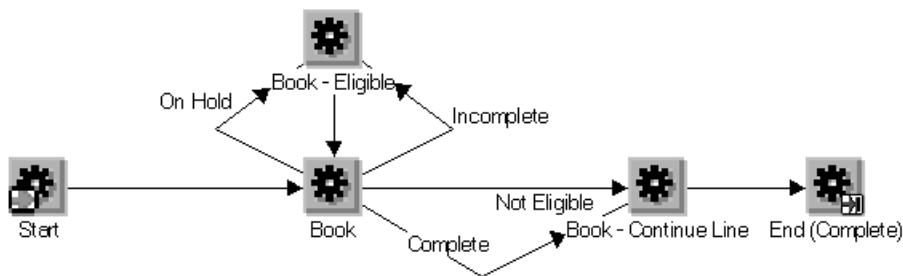
item, you can disable any or all activities in its order process so the order cannot proceed unless the hold is removed.

For example, you cannot Book an order that has a generic order level hold or a Booking specific hold. The Book activity posts messages indicating that a hold exists. It then completes with an On Hold result and transition back to the Book - Eligible activity.

You can define custom workflow activities that honor holds. Order Management provides Public APIs that can apply holds, check whether an order or line is on hold and remove holds. You can also seed lookups (Holdable Header Activities, Holdable Line Activities) based on your custom workflow activities and define holds based on them.

Additionally, the notification functionality in release 11i can be used for handling business exceptions, such as orders on hold, and for approval requests. For instance, you can setup a notification that requires a manager's approval when orders go on credit check hold. The role assigned to the Notification Approver, determines to whom the notification is sent. For instance, the person assigned as Notification Approver can be a Manager where all orders that are placed on credit check hold would be routed to him via email for approval before the orders are released from the hold. Refer to the Required Setup, Profile Options section for details on assigning a notification approver.

Figure 12–1 Booking Process with Exception Handling



In this example, the booking process is designed to handle expected errors, that are validation or other errors that are expected as part of normal processing (i.e. Line on Hold, it cannot be Picked). If the Booking activity finds a hold on the Order, it will

post a message that the Order is on hold and then complete with a result of ON_HOLD to the Booking eligibility block.

The flow needs to transition to a block that can be completed from the Sales Order window or to a Wait Activity.

The Line flow that is used with the Header flow should have the appropriate co-ordination wait-for-flow activity so that the line will not proceed until the appropriate action has been taken to resolve the error. Workflow provides you the ability to customize your processes to include exception processing activities as well as approval activities in order to ensure the appropriate holds are placed on specific orders and/or lines.

Honor Holds in Repricing at Shipment

Overview

Order Management provides repricing at shipment functionality. Customers can put the reprice line workflow function in any place after booking, usually after shipping or fulfillment, in their order line workflow. This is a powerful feature used by customers who have long lead times between order entry and shipping and customers who want to be able to finalize their price list or discounts after an order line is entered. This activity can be selected in an activity hold. You can define a reprice line workflow activity specific hold and apply to the order lines you choose. After the pricing setup is finalized, you can release the hold and progress the order line. Also the reprice line workflow activity is enhanced to retry every twelve hours.

Setup

There are no mandatory setups to enable the functionality of this feature.

Configure-to-Order

Topics covered in this chapter include the following:

- [Overview](#) on page 13-2
- [Setup](#) on page 13-4
- [Process Steps](#) on page 13-6
- [Related Processes](#) on page 13-18
- [Back-to-Back Orders](#) on page 13-20

Overview

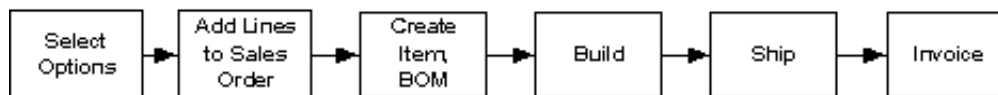
The Configure-to-Order process (CTO) is a cross-modular process that enables you to select options in the sales order window to define a possibly unique item, build the item using Oracle's Manufacturing Applications Suite, and continue processing the item as if it were a standard item through the shipping and invoicing activities. This section defines the CTO process as well as the related processes of Assemble-to-Order (ATO), Pick-to-Order (PTO) and Kits. It provides an overview of how this business process is implemented, the workflow processes that support it, and the required setup.

See

Oracle Configure to Order Implementation Manual

The CTO process goes through these basic steps:

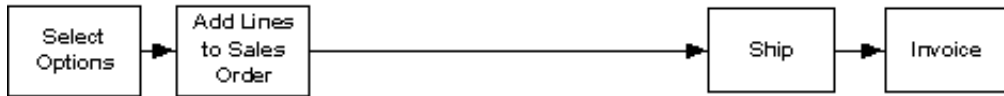
Figure 13–1 CTO Process



First, you navigate to the Sales Order window and enter an ATO model as an item. Depending on your setup, you can use the Configurator or Options window to select options. The system adds the options to the sales order as new lines. The system creates a new item and a new bill of material (if necessary) and generates communications with the manufacturing applications so that the item is built. The completed item is then shipped to the customer and an invoice is generated.

Note: These steps are described in detail later in this chapter.

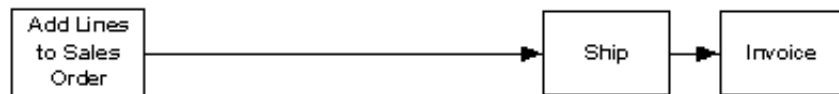
The PTO process is similar to the CTO process except that all options are finished goods that are stocked in the warehouse, so no assembly operation is required. These are the basic steps for the PTO process.

Figure 13-2 PTO Process

The ATO process is also similar to the CTO process. The item is built based on the demand from the customer order. However, for an ATO item the customer cannot select options. Therefore the item and the bill of material are already defined. You enter an ATO item and it follows this process.

Figure 13-3 ATO Process

Finally, the kit process is similar to the CTO process, because a kit item has a bill of material structure and the included items are added as lines to the sales order. You enter a Kit item and it follows this process.

Figure 13-4 Kit Process

Setup

All models, option classes, options, and kits must be defined in Oracle Inventory and they must have their attributes set appropriately. Bills of material must be created for all models, option classes, and ATO items. Finally, the workflow processes must be correctly assigned to the transaction types.

The key attributes that control the processing of the CTO and related processes are on the Order Management tab in the Item setup window. The flag Assemble to Order should be selected for CTO items and ATO items. The Pick Components flag should be selected for PTO models. Other attributes are also important. The best way to create your items is to copy them from the following seeded templates:

- ATO Model (for the Configure-to-Order process)
- ATO Option Class
- ATO Item
- PTO Model
- PTO Option Class
- Kit

Bills of Material (BOMs) must be created for your models, option classes, ATO items, and kits. For models and option classes, some key attributes are defined on the Order Entry tab of the BOM window. The optional flag is checked if an option class or option is not required. If an option class is required then the configuration must include at least one of the options from the class. The option class that is not optional is called a mandatory option class. If an option is not optional it is considered an included item and it not shown as an available selection in the Configurator or option selection window. It is automatically added to the sales order. At least one item should be optional within the structure of an ATO model or a PTO model. No items can be optional in a kit. Another important attribute of the BOM is the required for revenue flag on the shipping tab. This flag is only enabled in PTO configurations for included items. If the flag is checked, then the option class or model which is the parent of the item will not be invoiced until this item has been shipped.

See

Oracle Bill of Material User's Guide

The transaction type for an order which will include CTO items must have at least two line workflow processes associated with it - one for the model, options and

option classes and one for the configured item. In the Assign Line Flows window, the item type of Configuration must be specified for the workflow of the configured item. For ATO models, ATO items, PTO models, options, option classes, and kits the seeded generic line flow can be used for all the item types.

See

[Transaction Types](#)

Profiles

You can configure these profiles with the Configurator or through the Options Window within Order Management. In order to use the Configurator or Options Window in Order Management, the profile OM: Use Configurator must be set.

Optional profile settings for Configurations include:

OM: Charges for Included Items If set to Yes, Order Management calculates and returns charges for included items. Keep in mind that even if the profile is set to Yes the included item is not priced. This calculates only the charges.

OM: Configuration Quick Save If set to Yes, Oracle Order Management creates model class order lines without applying certain business functions. Specifically, the model class order lines are not subject to defaulting, processing constraints, pricing or taxation.

OM: Copy Model DFF to Child Lines This profile option enables copying all flexfields to the lines from the model line. Context sensitive flexfields are usually desired, so the default value is No. You must set this parameter to Yes in order for the values to copy.

OM: Item View Method This profile is used to decide the Options Window LOV item display format for models. This can be set with the following values: Description, Description without indentation, Concatenated segment values, and Concatenated segment values without indentation. This can be set at all four levels.

OM: Show Line Details This profile option determines whether the line details of a model are displayed in the Sales Orders window.

Process Steps

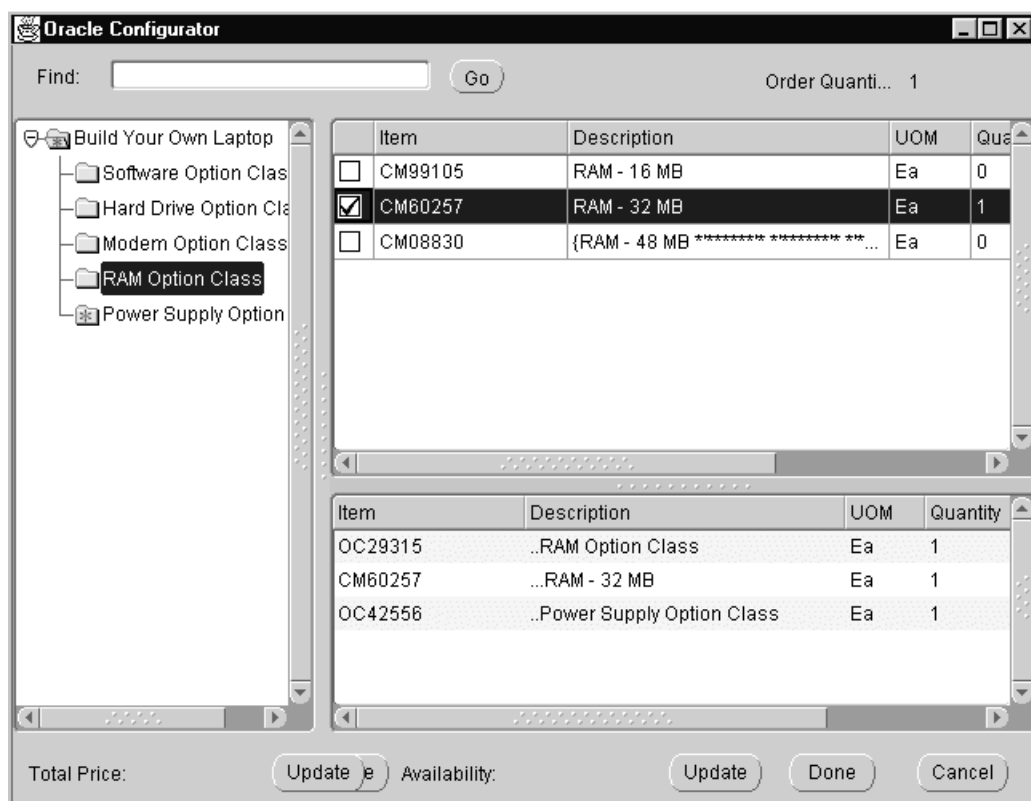
This section will describe the steps required to order, ship and invoice a CTO item from the Order Management point of view including:

- Entering the item - OM
- Selecting the options - CZ or OM
- Creation of a configured item - BOM
- Creation of a work order - WIP
- Manufacturing - WIP
- Shipping and invoicing - SHP
- Associated workflows - WF

To setup a CTO item for ordering, shipping, and invoicing:

1. Enter your item.
2. Enter an ATO model as the item number.
3. Click Configurator.

If the profile option, OM: Use Configurator is set to Yes and the Configurator product is installed, the Oracle Configurator window ([Figure 13-5](#)) appears after when clicking the Configurator button.

Figure 13–5 Oracle Configurator window

4. Select your options.

The folders on the left side are the model and its option classes. For the selected option class (in this example the RAM option class), the available options are in the top box on the right. The options are selected by checking the box to the left of the item name. The options and option classes which are selected are in the bottom right. Required option classes which have no selections are indicated by a red asterisk on the folder icon.

Note: Oracle Configurator is a powerful tool that enables you to create complex rules for configurations and then validate those rules when you create configurations. It is completely integrated with Order Management. See: *Oracle Configurator Developer User's Guide* and the *Oracle Configurator Installation Guide*.

5. Click OK.

The model, option classes, and selected options are now all separate lines on the sales order window, as shown in [Figure 13-7](#). Note that the lines are related by the line number.

6. If the profile option, OM: Use Configurator is set to No, the Options Window will appear.

Figure 13-6 Options Window

Options

Line Model Qty

Model Item

| Option Number | Item | UOM | Qty |
|---------------|-------------------------|-----|-----|
| 1 | Software Option Class | Ea | 10 |
| 2 | Software - Graphics | Ea | 10 |
| 3 | Hard Drive Option Class | Ea | 10 |
| 4 | Hard Drive - 2.0 GB | Ea | 10 |
| 5 | Modem Option Class | Ea | 10 |
| 6 | Modem - 28.8 kbps | Ea | 10 |
| | | | |
| | | | |

Item

7. Select your options.
8. Click OK.

Figure 13-7 Sales Order Window with Model, Option Classes and Options

Sales Orders (96692) - Business World11

Order Information

Line Items

Order Total

1,608.12

Main

Pricing

Shipping

Addresses

Returns

Services

Others

| Line | Ordered Item | Qty | UOM | Unit Selling Price | Request Date | Schedule Ship Date | S |
|-------|--------------|-----|-----|--------------------|----------------------|--------------------|---|
| 1.1 | CN97444 | 1 | Ea | 1,269.00 | 16 JAN-2002 00:00:00 | | E |
| 1.1.1 | OC68020 | 1 | Ea | 9.00 | 16 JAN-2002 00:00:00 | | E |
| 1.1.2 | CM25287 | 1 | Ea | 146.70 | 16 JAN-2002 00:00:00 | | E |
| 1.1.3 | OC42556 | 1 | Ea | 9.00 | 16 JAN-2002 00:00:00 | | E |
| 1.1.4 | CM34225 | 1 | Ea | 9.00 | 16 JAN-2002 00:00:00 | | E |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Line Total

1,442.70

Line Qty

1

Description

Build Your Own Laptop

Actions

Configurator

Availability

Book Order

Each of these lines has a separate workflow and chapter will discuss the workflow process for each line in the workflow section.

After the options for the configuration are selected, the items on the order must be scheduled.

See
[Scheduling](#)

- 9. Create the configured item.
This item could be completely new, or it could have been manufactured before because someone selected the same combination of options. A program runs

looks for an existing configuration with these options (if the value of the profile option BOM: Match to Existing Configuration = Yes), and if one does not exist (or if the value of the profile option BOM: Match to Existing Configuration = No) it creates an item and BOM for this combination of options. To run this program from the sales order window, place your cursor on the model line (the one with a two segment line number), press the Actions button and select Progress Order. The line will be eligible for the Create Configuration activity. Select this from the list and press the OK button. Alternatively you can create one or more configuration items in batch mode by running the AutoCreate Configuration Items concurrent request in the Bills of Material application.

When you have completed this step, your order will have an additional line item which is known as the configured item. The item will have an item number which was created for the first order with this exact combination of selected options. The format for the configuration item number is determined by the Numbering Method parameter in the BOM parameters window.

Note: There are two batch programs, AutoCreate FAS, which creates work orders, and AutoCreate Configuration, which creates configuration items, configuration BOMs and routings, and calculates cost and lead time. These batch processes update the workflow of each order line that it processes.

AutoCreate Configuration Items picks up orders that are at the Create Configuration Item Eligible block activity and creates the configuration item, configuration BOM and routing, and calculates cost roll up and lead time roll up. It then completes the Create Configuration Item Eligible block activity with a Complete result and completes the Create Configuration BOM Eligible block activity with a Config Data Created result.

AutoCreate FAS picks up orders for configuration items with discrete routings that are at the Create Supply Order Eligible block activity and creates work orders for them. It then completes the Create Supply Order Eligible activity with a Reserved result.

10. Create the work order.

Creation of the work order will trigger the manufacture of the item.

Note: The CTO process works with both Oracle's Discrete Manufacturing applications and Oracle's Flow Manufacturing applications. This section uses the terminology of the discrete manufacturing process.

To create the work order from the sales order window, place your cursor on the configured item line (the one that was added in the previous step,) press the Actions button and select Progress Order. The line will be eligible for the Create Final Assembly Order activity. Select this from the list and press the OK button. Alternatively you can create one or more work orders in batch mode by running the AutoCreate FAS concurrent request in the Work in Process (WIP) application.

11. Manufacture the Item.

In a production environment this could require many steps. None directly affect Order Management until the final status of work order completion. When the completion activity is performed in WIP the item is transferred to inventory with a reservation to the sales order.

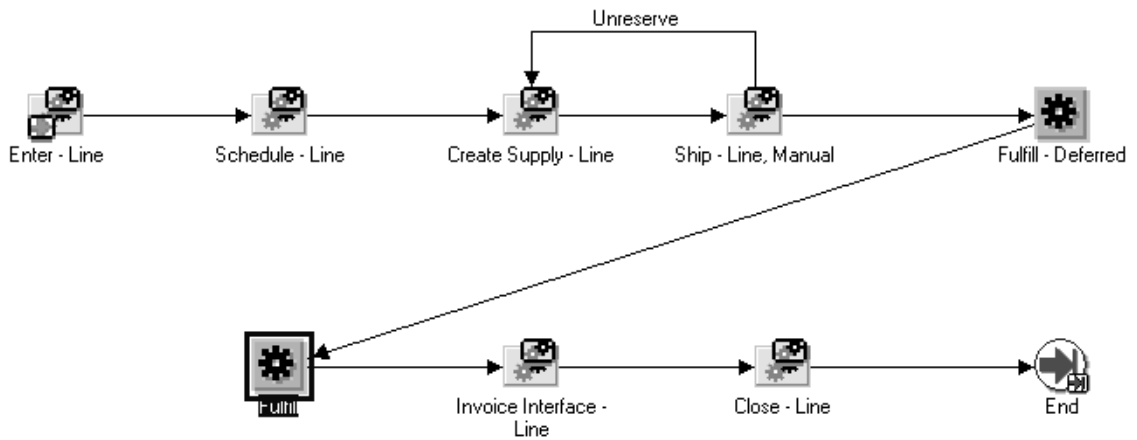
At this point, the configured item is available to progress through the standard order process of shipping and the model progresses through the invoice activity. The steps are described in the sales order flow and the shipping process flows sections of this manual.

Workflow

Although there are many item types in this business process, only two top level line Oracle Workflow processes are needed to support it. The seeded flow Line Flow - Generic is used for the model, option class and option lines. The seeded flow Line Flow - Configuration is used for the configured item.

Model, Options and Option Classes Workflow

The flow for the model, options and option classes all begin with the following basic process depicted in [Figure 13-8](#).

Figure 13–8 Line Flow - Generic Workflow Process

The lines progress through the Enter - Line and Schedule - Line subflows along the same path. At the Create Supply - Line subflow, their paths deviate.

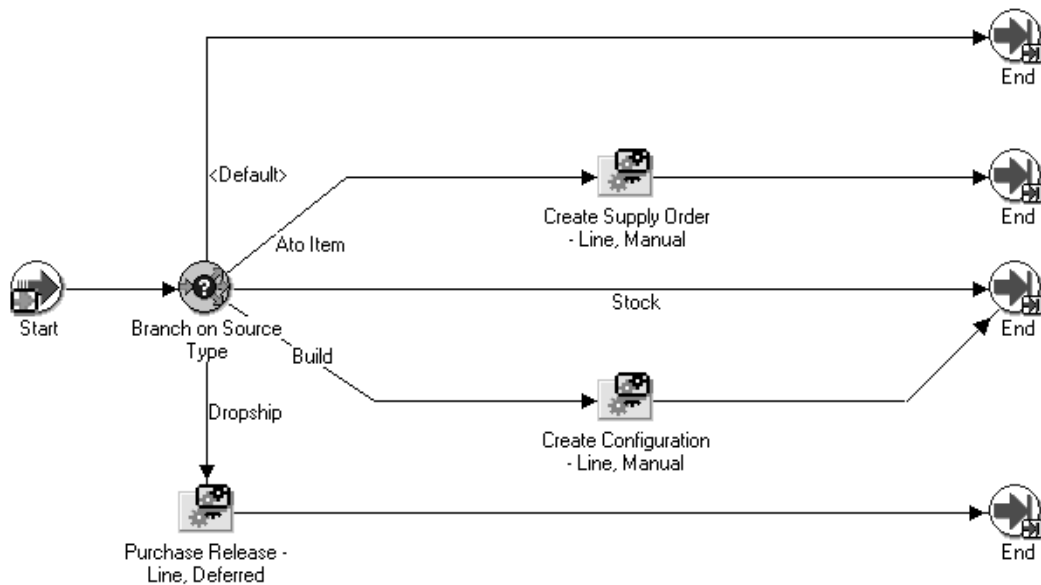
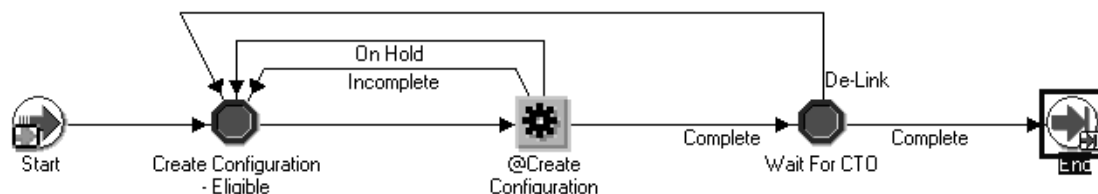
Figure 13–9 Create Supply - Line Subprocess

Figure 13–9 shows the variety of subflow paths that can be taken within Create - Supply Line. In the Branch on Source Type function, the options follow the path for Stock and the model follows the path for Build. Purchase Release - Line, Deferred is another subflow for drop shipments. See the corresponding section in this manual for more information on drop shipments.

The Build path, shown in Figure 13–10, has an additional sub-process of Create Configuration - Line Manual which looks like this.

Figure 13–10 Create Configuration - Line, Manual Workflow Subprocess



This subprocess creates the new line on the order for the configuration item, and its workflow begins. This flow will be addressed in a moment. The activity also creates the new item (or finds the existing one, if applicable,) and creates the BOM and Routing.

Once the Create Configuration - Line, Manual subflow is complete for the model line, the model line as well as the options and option classes have completed the Create Supply - Line subprocess and are ready for shipping. However, the model, options and option classes of a Configure to Order item are not shippable. The assumption is that in the manufacturing process the components are built into one indivisible item. So they pass through the shipping process with a result of Not Applicable, and proceed to the invoice process. The model line will be invoiced, so it goes through the Invoice Interface - Line activity and should complete. The options and option classes are not invoiced, so they go through the Invoice Interface - Line activity with a result of Not Applicable.

Configured Item Workflow

The configured item is created and added to the order when the model goes through the Create Configuration activity. Its workflow process is simpler than the process for models and options, shown in [Figure 13–11](#).

Figure 13–11 Line Flow - Configuration Workflow Process

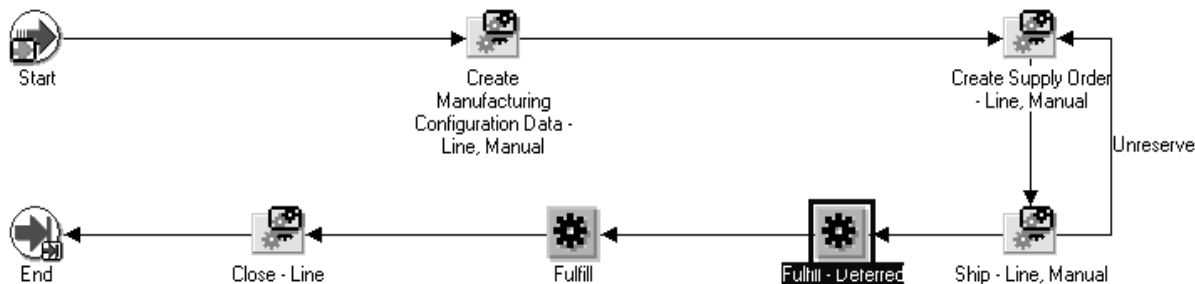
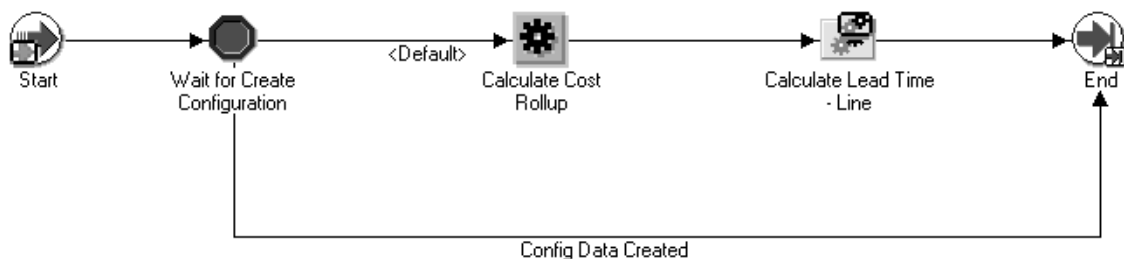


Figure 13–12 shows the first subprocess in the flow is the Create Manufacturing Configuration Date - Line, Manual.

Figure 13–12 Create Manufacturing Configuration Data - Line Manual Workflow Subprocess



This is the subprocess that performs the necessary Costing rollup and calculates the lead time for the configured item.

Figure 13–13 shows the next step in the configured item workflow, Create Supply Order - Line, Manual subprocess. This subprocess interfaces with the manufacturing system to trigger the assembly of the item. The Check Supply Type activity determines whether the item should be manufactured using discrete manufacturing or flow manufacturing. If the result is Flow Schedule, the Create

Flow Schedule activity is executed. If the result is a Work Order, the final subprocess, the Create Work Order - Line process is executed.

Figure 13–13 Create Supply Order - Line, Manual Workflow Subprocess

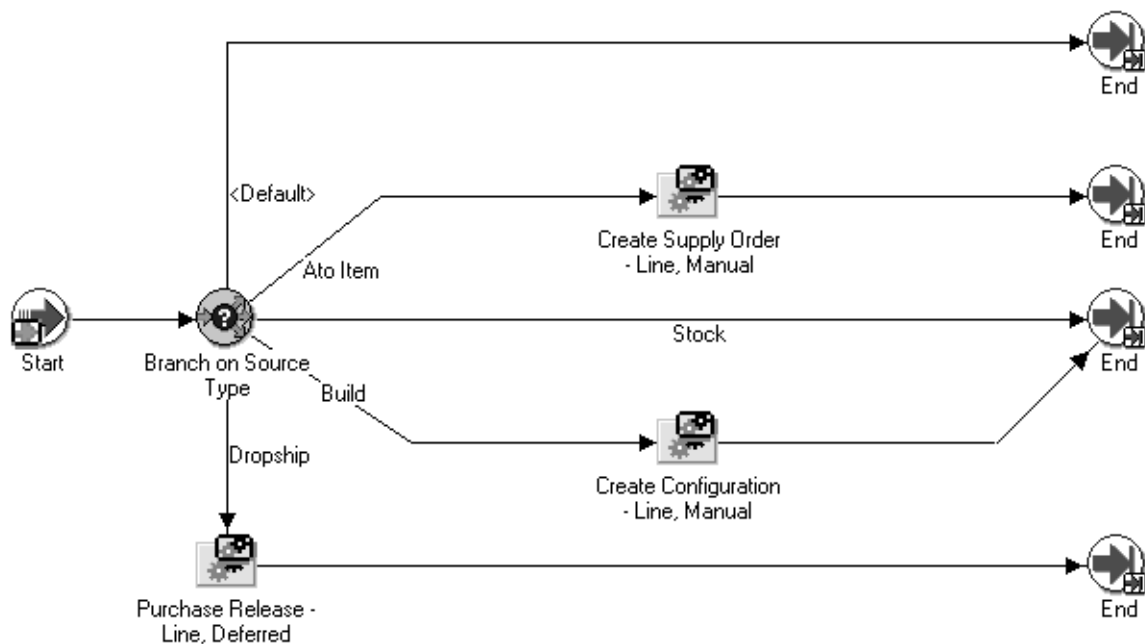


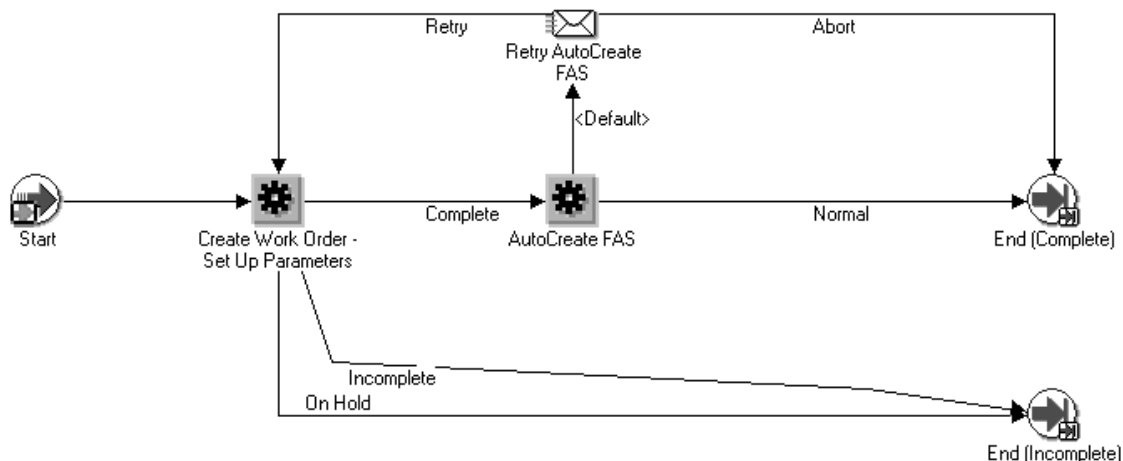
Figure 13-14 Create Work Order - Line Workflow Subprocess

Figure 13-14 indicates the final subprocess flow - Create Work Order - Line. The primary activity in this flow is the AutoCreate FAS activity, which will cause the WIP application to create a work order.

After the work order is created, the sales order will wait for completion of the work order before proceeding. When the work order is complete the inventory will be received into the inventory module and automatically reserved to the sales order.

The configured item then continues through the normal shipping and fulfillment steps from Figure 13-8 and then its workflow is complete. It does not have an Invoice Interface subprocess because it is never invoiced. Only the model line, option classes and options may be invoiced depending on their item attributes.

Related Processes

Several processes share some of the characteristics of the configure-to-order process. They include the assemble-to-order process, the pick-to-order process and the kit process. Because the configure-to-order process is the most comprehensive and includes all the steps it was described first, and the rest will be described relative to it.

The assemble-to-order process is similar to the PTO model, item, or PTO/ATO models because the items that are ordered by a customer are manufactured specifically for the customer order. So the manufacturing steps of the configured item are part of this process. However, the ATO item is not configurable for a customer in the sales order window. The ATO item is entered on the sales order window and then the order is booked without selecting any options. No option class lines or option lines are added to the order. The workflow process Line Flow - Generic supports the ATO process. The ATO item takes the ATO item branch in the Create Supply - Line workflow subprocess.

The pick-to-order process is similar to the configure-to-order process because you can select the options chosen by the customer. It follows the same flow as [Figure 13-13](#). On the sales order window the PTO model is entered, and then you press the Configurator button to launch the options selection window. The configuration options are saved, and the option classes and options are added as lines on the sales order. However, there are no assembly steps in the PTO process. The options all continue their own workflows which include the standard sales order line activities. When you create your PTO model in the Inventory application, Inventory sets the attributes for the model, and you can specify whether or not it is Ship Model Complete. If this attribute is Yes, all the options will be in a ship set. If this attribute is No then the items can ship independently.

The kit process is similar to the pick-to-order process except that the user cannot select options to create a configuration. All the items in the kit are required; these are known as included items. Kits are similar to configure-to-order items because the included items are added to the order and have their own workflows. They are added either when the kit line is saved, when the order is booked, or when the line is pick released depending on the value of the profile option OM: Included Item Freeze Method. Ship Model Complete logic for PTO models also applies to kits.

Back-to-Back Orders

In an environment where lead times are often only a matter of 24 hours, you may need to create a specific supply order linked to each customer order as soon as the order is booked, with the supply order hard pegged to the customer order that it is supplying. Once the supply reaches the warehouse it must not be inadvertently taken by another order or demand. Additionally, where the Sales Order line is in the process must be visible to you at all times so you can answer customer service inquiries. This process, Back-to-Back Orders, closely links the Sales Order and the supplying Purchase Order, often where one PO is tied to one Sales Order. The following shows you how you can model this process using Oracle Order Management and Oracle Configure-to-Order workflows.

Overview

Often customers order products that you do not typically stock but that you do not manufacture either. You may want to purchase that item specifically for this order, have the supplier ship it to you, and then combine it with other items you may have purchased or stocked to create one shipment to the customer. This is a common scenario for Wholesale Distributors who use the S3, or Sell-Source-Ship business model as well as for other demand channels. We call this process back-to-back orders or procure-to-order.

Keys to making this business process work are automating the Purchasing document creation, having accurate status of where the line is in the process, and pegging (or hard reservation) of the supply to the demand, so that the inventory isn't shipped to other customers once it is received.

The supply-to-order process satisfies this business need through both the familiar assemble-to-order process—in which a specific work order is created to build the item—and the procure-to-order process whereby a specific purchase order is created to fulfill the sales order demand.

Supply-to-order items are either standard items or models that have the assemble-to-order item attribute turned on. It is this attribute that launches the ATO workflows that deliver this feature. PTO models by definition cannot be supply-to-order, since turning on the assemble-to-order attribute would make them an ATO model. But you can fulfill the shippable options of a PTO model with back-to-back orders by checking the assemble-to-order item attribute of those components.

Using this process, you can:

- Designate the items you want to procure each time they are customer-ordered as supply-to-order.
- Set up a Buy From sourcing rule for those items or, if you don't set up sourcing rules, indicate that the item is a buy item rather than a make item.
- Enter sales order lines for these items, and have the supply automatically created via a requisition. No user decision-making is required to make this happen.
- Have the requisition converted into a Purchase Order or a release of a blanket Purchase Order, and have the PO or release sent to the supplier.
- View the requisition number or PO number and its status from the Sales Order.
- Accept changes to the Sales Order and have the ability to notify the buyer to take appropriate action on the associated PO.
- Reserve the supply from the Requisition to the PO and finally to the Sales Order once the PO is received.
- Pick, ship and finally invoice the customer for the product.

Features

To satisfy the above business needs, Oracle Order Management and Configure-to-Order have combined to deliver the back-to-back business flow with the following set of features:

Auto Create Requisitions

An automatic process called Auto Create Requisition is available that creates the requisition in Purchasing for the Sales Order line. This process takes information from the sales order line and puts it in the requisition import interface tables so that a purchase requisition can be created. This process can be run as a scheduled or on-request concurrent process, or can be initiated online from the Sales Order line using 'Progress Order' action.

Flow of Reservation Supply from Requisition to PO to Inventory

The supply for the reservation is first linked to the requisition, then moves to the PO, and finally to Inventory as the PO is received. Visibility to the supply for the reservation is provided in the View Reservations window.

Use of Workflow to Automate Process Steps

A branch of the existing Create Supply workflow subprocess in the seeded generic sales order line workflow initiates the autocreate purchase requisition processing when there is a Buy result.

Setup

To setup Back-to-Back Orders in Oracle Order Management:

1. Use the Inventory Master Items window to define the items that you wish to supply to order. The following item attributes must be specified:
 - Item must be marked as Customer Orderable on the Order Management tab and Purchasable on the Purchasing tab.
 - Item must be marked as Assemble-to-Order on the Order Management tab.

Note: The Assemble-to-Order attribute is actually called Replenish to Order in the database. The same flag also controls Procure-to-Order.

- Item must be marked as Build in WIP on the WIP tab.
 - Item must either have the make/buy flag on the General Planning tab set to Buy, or else have a sourcing rule saying that it is to be sourced from a vendor.
2. If you define a sourcing rule for your Supply-to-Order items, then the sourcing rule must be of type Buy From. Also, you may only define one single sourcing rule for your item, or this process will not work.
 3. You must add this sourcing rule to the assignment set which is specified as the MRP default assignment set in the MRP: Default Sourcing Assignment Set profile option.

Note: You may not have a combination of Buy From and Make sourcing rules or more than one sourcing rule in the assignment set for the same item. If you do that, Auto Create Requisition errors out and puts details about the problem in the log file.

Sales Order Process

To enter orders using Supply-to-Order items:

1. Enter the item on the Sales Order line.

When the line is scheduled, the Create Supply subprocess of the workflow will put the lines through the Buy ATO Item flow which contains the autocreate purchase requisition activity. AutoCreate Requisition can be run as a concurrent program or can be initiated for an individual order by using the Progress Order action on the Sales Order if it is in status Create Supply Line – Eligible. As stated above, AutoCreate Requisition takes information from the Sales Order line and loads the Requisition Import interface tables.

2. Requisition Import must be run to create the purchase requisition tied to the sales order line. This can be done by manually submitting the Requisition Import concurrent program, or you can schedule it to run automatically. Requisitions created by this process all have an interface source type of CTO so you can identify and segregate these requisitions as needed. There are also message dictionary entries for CTO Note to Receiver that can be populated with custom text. The requisition column Note to Buyer is populated by the AutoCreate Requisition process with a message Supply for sales order: <order number> that indicates the order number of the line. Add additional custom text to the note by editing the message dictionary for CTO Note to Buyer.

Purchasing Process

Once the purchase requisition is created and identified as CTO, the regular purchasing process takes place:

1. A Purchase Order is created and approved and sent to the necessary supplier, or a release of a previously created Blanket PO is used.
2. Once the PO or release is received, the items are recorded in inventory and a reservation is automatically made to the sales order line.

Note: View the Note to Buyer at any point in this process to find out what sales order generated this PO or release.

3. The Sales Order can now be pick released, shipped and invoiced just like other stocked items.

Sales Order Line Status

The following line statuses help you track where the line is in the process:

- PO Req Requested
- PO Req Created
- PO Created
- PO Received

If you want to see the Requisition number or Purchase Order number created by your Sales Order line, you must go to the Reservations Details window to find that information.

Reservations

A key in making this functionality work for you is how the inventory reservation is handled. This happens automatically, and can be traced from the sales order window by using Tools->Scheduling->Reservation Details as well as by directly using Inventory's Supply/Demand forms.

When Req Import processes, the purchase requisition is reserved to the sales order line. View the Inventory Reservations window supply tab to see the reservation linked to a requisition, and the requisition number and line number.

When the requisition becomes a PO or a blanket release, the reservation moves with it. The Reservations window, supply tab, then shows the reservation is linked to a PO or a blanket, and you will see the PO number or the PO and release number, as well as the line number.

When the PO is received into inventory, the reservation is automatically transferred into Inventory, and it now looks like any other reservation from a sales order to on-hand stock.

Just as in the regular ATO process, if you manually reserve the sales order line to inventory the Create Supply workflow step will not do anything, and the line will progress to Awaiting Shipping without flowing through the requisition process.

Changes or Cancellations

What happens if you need to make changes to the sales order line that is in the back-to-back process? What if the order line is cancelled? What if you need to make changes to the PO or the requisition?

If the sales order line is cancelled or the quantity is reduced, then the reservation is reduced and a notification is automatically sent to the buyer explaining that there is now a PO outstanding for a higher quantity than what is needed for the sales order. The buyer can then decide whether to cancel the PO line, or to buy the product anyway and put it into inventory.

If the schedule date on the sales order line is changed, again a notification is sent to the buyer, who can then decide to either change the date on the PO or cancel it or do nothing. If the buyer decides to cancel the PO, then a new requisition will be created the next time AutoCreate Requisition is run.

If the PO is cancelled or a partial quantity is cancelled, then the reservation is cancelled or reduced appropriately. The next time AutoCreate Requisition is run, it will create another requisition for the unreserved amount on the sales order.

Miscellaneous

Internal Orders

You can put a Supply-to-Order item on an internal sales order, and it will process the same as on external sales order.

Drop Shipments

Drop Shipments is similar to this back-to-back process in that your sales order line creates a requisition line that becomes a PO sent to your supplier. In a drop shipment; however, you instruct your supplier to send the item or configured item directly to your customer. The items never physically pass through your warehouse, and therefore you do not pick, pack or ship them yourselves. In the back-to-back scenario, you instruct your supplier to send you the goods, and then you ship them on to your customer.

Supply Type for Reservations

There is a Supply Type of External Requisition to inventory reservations that also shows the purchase order or requisition that the reservation is made to in the Inventory Reservations window.

Debugging

The AutoCreate Requisition and Requisition Import programs that process reservations use the OM debug system. This means you can generate a debug file if

you set the OM debug profile and the OM debug log directory profiles and then run those programs.

PO has its own debug profile which is used by Requisition Import to log messages, but any messages regarding the reservations are logged using OM's debug facilities.

Basic Pricing Setup

Topics covered in this chapter include the following:

- [Overview of Basic Pricing](#) on page 14-2
- [Pricing Terminology](#) on page 14-3
- [Basic Pricing Features](#) on page 14-5
- [Process Flow for Implementation](#) on page 14-9
- [Implementing from Fresh Install](#) on page 14-11
- [Upgrading from Release 10.7 or Release 11 of Oracle Applications](#) on page 14-11
- [Overview of Pricing Security](#) on page 14-14
- [Overview of Price Lists](#) on page 14-49
- [Overview of GSA Pricing](#) on page 14-55
- [Overview of Formulas](#) on page 14-59
- [Overview of Modifiers](#) on page 14-61
- [Implementing Modifiers](#) on page 14-61
- [Overview of Agreements](#) on page 14-68
- [Overview of Setting up Contexts and Attributes in Attribute Management](#) on page 14-72
- [Creating Context and Attributes](#) on page 14-74

Overview of Basic Pricing

This section explains how to implement the Basic Pricing component of Oracle Order Management and includes information on the following topics:

- Definitions of pricing terms and feature highlights
- Implementation Planning Process Flow
- Defaulting Rules in Basic Pricing
- Pricing Security
- Price Lists
- GSA Pricing
- Formulas
- Freight And Special Charges
- Pricing Engine Request Viewer
- Agreements
- Modifiers
- Contexts and attributes
- Profile Options and Systems Parameters (see the Pricing chapter on profile options)

The Basic Pricing component of Oracle Order Management provides the capability to price orders according to price lists, pricing formulas, or agreements. You can also apply discounts, control the lowest level price that may be given in order to comply with General Services Administration Agency (GSA) regulations, and apply freight and logistics related charges to orders.

Note: If you have licensed Oracle Advanced Pricing, you should not use this section for implementation guidance. Instead, refer to the *Oracle Advance Pricing Implementation Manual* and *Oracle Advanced Pricing User's Guide*.

Pricing Terminology

Customer Hierarchy

The customer hierarchy in Basic Pricing enables you to roll up individual customers according to the following structure:

- The sold-to organization
- The ship-to organization
- The bill-to organization
- Site
- Customer Class

You can use elements of the customer hierarchy as defaults to control the operation of price lists and modifiers.

Note: Additional product hierarchy capabilities, such as additional levels, can be defined if Oracle Advanced Pricing is installed. In Basic Pricing, you can define additional pricing contexts. See ["Overview of Setting up Contexts and Attributes in Attribute Management"](#) on page 14-72.

Pricing Engine

The pricing engine is the program module called by Order Management that prices the order as orders are entered or order data changed.

Pricing Request

A pricing request is the specific information provided to the pricing engine when the engine is called by Order Management. In general, this includes the customer, the product, the attributes associated with the customer or product that may be used by the pricing engine, the pricing date, and other pricing data attributes that may be required by the pricing engine.

Product Hierarchy

The product hierarchy in Basic Pricing enables you to up roll individual items as defined in MTL_SYSTEM_ITEMS table into single level groups called Item Categories. For price lists, you can only define products at the item level; however,

you can use hierarchy to reprice. For modifiers, you can use item, item and pricing attribute, item categories, or the Super Group of item ALL.

Additional levels of product hierarchy can be defined if Oracle Advanced Pricing is installed.

Oracle Advanced Pricing

Oracle Advanced Pricing and Basic Pricing share common software components; however, Oracle Advanced Pricing is a separate licensable product that can be used as an alternative to Basic Pricing. Oracle Advanced Pricing provides the functionality of Basic Pricing, while adding significant functionality and extensibility.

The pricing software examines the installation type (either full or shared) to determine the appropriate mode to run in: users of Basic Pricing are installed as shared and are not licensed to use Advanced Pricing capabilities.

When in basic mode, the Advanced Pricing features cannot be viewed or selected in the user interface setup windows. Because the information for Advanced Pricing cannot be set up in pricing implementation running in basic mode, use of Advanced Pricing features is also inhibited.

Users who have licensed Advanced Pricing are installed as "full" and can access the Advanced Pricing features. For additional information about the features available with Oracle Advanced Pricing, see the *Oracle Pricing User's Guide* and the *Oracle Advanced Pricing Implementation Guide*.

Warning: Since Advance and Basic Pricing share common lookups, a user with the user responsibility of Pricing can modify and save Advanced Pricing lookups in Basic Pricing. It is not possible to restrict the update of Advanced Pricing lookups in Basic Pricing.

Basic Pricing Features

The following section describes the key Basic Pricing features supported by Oracle Applications.

Pricing Security

Oracle Pricing provides an additional level of security called *pricing security* in addition to the existing functional security. Pricing security enables you to restrict pricing activities such as updating and viewing pricing entities to users granted specific access privileges.

Pricing security can be set up and maintained by a user who is assigned the Oracle Pricing Administrator responsibility. Pricing security is set up and maintained in the HTML user interface. The Oracle Pricing Administrator typically has the authorization to access and update all pricing entities for all functional users. Pricing entities include price lists, pricing agreements, and modifiers.

Price Lists

Price lists relate a selling price to a product. Price lists consist of price list lines, pricing attributes, and a secondary price list and include information such as the price list name, effective dates, currency, rounding factor, and shipping defaults such as freight terms and freight carrier.

You may default a price list based on any one of the following:

- An agreement
- The sold-to organization
- The ship-to organization
- The bill-to organization
- Order type

You can create multiple price lists. Alternatively, you may enter a specific price list on the order header or at the order line level. For each price list, you can also assign a secondary price list, which the pricing engine searches when it cannot find an item on the primary list. Only one secondary price list will be searched for each primary list.

Price lists and Currencies Price lists may be specified in different currencies. During order entry, if you enter a currency on the order, the pricing engine will select price lists having a currency matching the currency you entered on the order.

Pricing Engine Request Viewer

The Pricing Engine Request Viewer window captures the pricing call from any calling application such as Oracle Order Management and displays the inputs and outputs of the pricing call.

The information displayed by the Pricing Engine Request Viewer enables you to review which lines were selected or rejected by the pricing engine and determine why certain prices and adjustments were or were not applied. For more information on using the Pricing Engine Request Viewer, see the *Oracle Order Management User's Guide*.

Pricing Attributes

Order Management with Basic Pricing is delivered with seeded pricing attributes. The seeded attributes are described in the appendix of this implementation manual. You can use one pricing attribute per order line. See ["Overview of Setting up Contexts and Attributes in Attribute Management"](#) on page 14-72 for information on creating additional pricing contexts and attributes.

Maintaining Price Lists

You can maintain price lists using any one of the following functions:

- Copy Price List
- Adjust Price List
- Add Items to Price List

These capabilities are invoked from a window within the Order Management Superuser Responsibility, which submits Concurrent Manager jobs for each step.

Agreements

Agreements enable you to define the prices, payment terms and freight terms that you negotiated with specific customers. Using agreements, you can:

- Define your agreements using customer part numbers and inventory item numbers.
- Make revisions to the original terms and maintain these changes and their reasons under separate revision numbers.
- Attach an already existing price list to the agreement or define new prices.
- Assign optional price breaks by quantity.

- Set effective dates for agreement terms.
- Set payment terms including invoice rule and accounting rule.
- Set freight terms including the freight carrier.
- Apply agreement terms to sales orders by reference agreements.

GSA Pricing

General Services Administration Agency (GSA) pricing enables you to define a GSA price list for your GSA customers. The GSA price list is created in the modifier window and uses the new price. You create a discount that adjusts the base price of the item to the GSA price.

Formulas

Formulas enable you to define a mathematical expression that the pricing engine can use to determine the list prices of items. A full complement of mathematical operators and numeric operands can be used.

When processing formulas, the pricing engine locates a price list line linked to a formula. It then applies the mathematical expression to generate a final list price. In Basic Pricing, formulas are static; that is, the variables in the formula must be pre-populated with data by running a concurrent manager job before the formula can be used.

Modifiers

Using modifiers, you can increase or decrease the list price to arrive at a net selling price for your orders. A modifier can be applied automatically by the pricing engine, or you can manually apply a modifier. Additionally, modifiers, with proper setup, can be overridden.

Modifiers consist of a header region with one or more modifier lines. You can define three types of modifier headers:

- Discount
- Surcharge
- Freight and Special Charge

You may default the pricing engine's selections of modifiers at the header level to the following customer-level attributes: Site, Customer Name, and Customer class (as defined in RA_CUSTOMERS table).

Alternately, you can also default the pricing engine's selection of modifiers based on the price list name.

You may define default modifiers at the order line level based on agreements including:

- Agreement Type
- Agreement Name

Alternatively, you can default modifiers based on purchase order. For a modifier to default at the line level, it must first default at the header level. If it does not default at the header level, the line level default will have no effect.

Combined with the preceding defaults, you can also default modifiers based on the following product-level attributes:

- Item
- Item Category
- All Items

Modifiers can be used to calculate price breaks. You can define breaks at the line level to be computed as percent, amount or fixed price. Price breaks are available only on modifiers in Basic Pricing. Point type price breaks are supported in Basic Pricing.

Freight and Special Charges

The Freight and Special Charges capability of Oracle Order Management enables you to capture, store, update and view costs associated with a shipment, order, container, or delivery. You can either itemize or summarize such charges on your orders. This capability includes functionality to pass customer charge information to Oracle Receivables for invoicing.

When using freight and special charges, you set up freight and special charges as pricing modifiers. The pricing engine applies the qualified freight and special charges to order lines. You can view the application of freight and special charges. Order Management captures costs at shipping and converts them to charges. Freight and special charges appear on invoices.

Process Flow for Implementation

Whether you are implementing from a fresh install or upgrading from a previous version, the process flows for implementation require that:

- Oracle Applications, including Order Management, have been successfully installed.
- Oracle Pricing has been installed as Shared.
- All necessary patches have been applied.

Implementing from Fresh Install

The following table recommends the implementation steps for a fresh install (no prior implementation of Oracle Order Entry/Shipping exists). The recommended implementation steps differ when upgrading from a prior release.

Table 14–1 Fresh Install Steps

| Step # | Name | Description |
|--------|--|--|
| 1 | Analyze and Understand Business Pricing Scenarios | It is highly recommended that an exact understanding of pricing business requirements be established, before beginning an implementation of Basic Pricing. |
| 2 | Develop Logical Pricing Model Solutions | For each Pricing Scenario, plan how you will use Basic Pricing to accomplish each. An excellent resource for this is the remainder of this manual. |
| 3 | Setup and Test Prototype Solutions | Prior to implementing a production system, setup prototype Basic Pricing solutions for all the pricing scenario's you have identified, and have entered test orders against them to determine that they are handled properly. The Vision Sample database shipped with the software can be used to facilitate this process. |
| 4 | Make necessary defaulting decisions | See subsequent section of this manual for details. |
| 5 | Setup Basic Pricing Profile Options and System Parameters | See subsequent section of this manual for details. |
| 6 | Setup Customers and necessary customer hierarchy information | Customer setup must be performed using Oracle Accounts Receivable |

Table 14–1 Fresh Install Steps

| Step # | Name | Description |
|--------|--|--|
| 7 | Setup Items and Item Hierarchy information (except Pricing Attributes) | Item setup must be performed using Oracle Inventory |
| 8 | Setup Pricing Attributes | See subsequent section of this manual for details. |
| 9 | Setup Pricing Security | See subsequent section of this manual for details. |
| 10 | Setup Price Lists | See subsequent section of this manual for details. |
| 11 | Setup Formulas | See subsequent section of this manual for details. |
| 12 | Setup Agreements | See subsequent section of this manual for details. |
| 13 | Setup Modifiers | See subsequent section of this manual for details. |
| 14 | Setup GSA Pricing, if required | See subsequent section of this manual for details. |
| 15 | Setup Freight and Special Charges, if required | Refer to Appendix for chapter on Freight and Special Charges |

Upgrading from Release 10.7 or Release 11 of Oracle Applications

When upgrading from previous release, the upgrade of pricing data to Release 11*i* Basic Pricing occurs within the overall flow of upgrading from Order Entry Shipping.

Since the outcome of the upgrade process is to establish a working 11*i* system into which new transactions can be entered, the steps to complete the upgrade are the same steps required to implement.

In general, Basic Pricing supports a similar feature set to Oracle Applications Release 10.7 and Release 11. There are functional differences in the behavior of pricing objects such as price lists, formulas, modifier, etc. in Basic Pricing release 11*i* from their counterparts in prior releases.

The table below summarizes where such functional differences exist, and indicates whether further post upgrade setup is required before the object can be used.

Table 14–2 Functional Differences in Pricing Objects

| Step # | Release 10.7 & Release 11: Pricing Object Name | Upgrade Summary |
|--------|---|--|
| 1 | Item Groups | <p>Migrated to Item Categories and Item Category Sets in Release 11<i>i</i>. Additional setup is required post upgrade.</p> <p>1) Run Add Items to Price List concurrent request to add upgraded Item Category to Price List</p> <p>2) Additional set-up is required for non-upgraded fields</p> |
| 2 | Price Lists | Price Lists in Prior Releases migrate to Price Lists in Basic Pricing. No additional setup is required after running migration for price lists to be usable. |
| 3 | Pricing Rules | Pricing Rules in prior releases migrate to Static Pricing Formulas in Basic Pricing. No additional setup is required after running migration for Pricing formulas to be usable. |

Table 14–2 Functional Differences in Pricing Objects

| Step # | Release 10.7 & Release 11: Pricing Object Name | Upgrade Summary |
|---------------|---|--|
| 4 | Agreements | Agreements in Prior Releases are migrated to Standard Agreements in Basic Pricing. A new separate window is provided for agreements in R11i Basic Pricing. No additional setup is required after running migration for Standard Agreements to be usable. |
| 5 | Discounts | Discount headers, customers, and line forms found in prior releases are upgraded to Modifier header and lines in Basic Pricing. No additional setup is required after running migration for Basic Pricing modifiers to be usable. |
| 6 | GSA Pricing | GSA Discounts in prior releases migrate to GSA modifiers. No additional setup is required after running migration for GSA modifiers to be usable. |
| 7 | Freight and Special Charges | Freight and Special Charge capability is new for R11i Basic Pricing, and did not exist in prior releases. See subsequent section of this manual for details. |

Overview of Defaulting Rules in Basic Pricing

Some of the defaulting rules set up in Oracle Order Management (OM) can potentially change the final price returned by the pricing engine. Therefore, it is important to carefully select your defaulting values during order entry.

Pricing Date

The pricing date instructs the pricing engine to price the order using list prices and benefits that are valid on that day.

At the Order Line level, you can setup a defaulting rule to default the pricing date entered in the order header, ordered date or requested date etc. By controlling the defaulting value of the pricing date you control the LOV of price lists being queried in OM and the list price and benefits applied on to the order.

Agreement

By entering an agreement name on an order the customer is able to receive the prices negotiated in the agreement. An agreement is tied to a standard price list or an agreement price list. An agreement price list could be chosen in Order Management only if the agreement to which the price list is tied to has been entered in the Sales Order window.

You can use agreements to default details such as sales person, purchase order number, payment terms, and freight terms.

Price List

The price list on the order line is used to fetch the list price and apply benefits. If the item is not found in the price list, the secondary price list is searched. If the item is not listed on the secondary price list, or if there is no secondary price list, an error message is given.

If an agreement is mentioned on the order, then standard price lists and agreement price list attached to the agreement can be used. Price lists can be defaulted from customer, agreement, or order type.

Currency Code

The pricing engine searches for the price lists and benefits in the currency code mentioned on the order. Use defaulting to control the currency in which the order is going to be priced.

Overview of Pricing Security

This section describes the steps required to implement pricing security for Oracle Pricing. In Oracle Applications, a basic level of security called *functional security* is used to manage users' access to each application and control their access to windows, functions, and reports within an application.

Typically, the System Administrator administers functional security and assigns operating unit, responsibility, and system access to users. See the *Oracle Applications System Administrator's Guide* for more information about functional security.

Oracle Pricing provides an additional level of security called *pricing security* in addition to the existing functional security. Pricing security enables you to restrict pricing activities such as updating and viewing pricing entities to users granted specific access privileges.

Pricing security can be set up and maintained by a user who is assigned the Oracle Pricing Administrator responsibility. Pricing security is set up and maintained in the HTML user interface. The Oracle Pricing Administrator has the authorization to access and update all pricing entities for all functional users. Pricing entities include price lists, pricing agreements, and modifiers.

With pricing security, you can implement a higher level of control by:

- Assigning pricing entities to operating units.
- Assigning privileges to pricing entities that control who (the Grantee) can view or maintain the specified entity.
- Setting default security access rules for new pricing entities with security profile options.

Assigning pricing entities to Operating Units

A pricing entity can be assigned ownership to a specific operating unit. You can restrict usage to one operating unit or allow usage by all operating units.

Assigning security privileges to control users' access to pricing entities

You can use security privileges to control users' access to pricing entities in the following ways:

- Grant view-only or maintain access privileges to functional users at the Global, Operating Unit, Responsibility, or User level.
- Grant temporary access - for example, to auditors or temporary employees - for a specified date range.

- Assign or reassign Operating Unit ownership to price lists and modifiers and control which operating units can use them for pricing transactions.
- Create Entity Sets (a set consists of grouped pricing entities) and assign access privileges to the entire set. The Entity Set function is only available with license to Advanced Pricing.

Warning: Before setting the profile option QP: Security Control to ON, you must create privileges for existing pricing entities.

See:

[Overview of Pricing Security](#) on page 14-14

[Assigning Ownership of Pricing Entities to Operating Units \(Entity Usage page\)](#) on page 14-23

[Creating Privileges](#) on page 14-30

[Setting up Default Security Profile Options for New Pricing Entities](#) on page 14-40

[Setting up Default Security Profile Options for New Pricing Entities](#) on page 14-40

[Setting the QP: Security Control profile option to ON](#) on page 14-48

Pricing Security Terminology

The following terms are used in Oracle pricing security:

Pricing Entity Security: The highest level of security administration for Oracle Pricing. This level of security is in addition to Functional Security and PTE plus Source System Code security. Functional security is established for each user by responsibility set up. The Oracle Pricing Administrator is a new Responsibility which has complete access to all pricing entities without restriction and is used for global administration of secured access to pricing entities. This security is administered in the Oracle HTML user interface.

- **Pricing Entity:** A pricing entity can be a price list, modifier list, or pricing agreement.
- **Entity Type:** A term used to describe one of the following pricing entities: Standard Pricelist, Modifier List, Pricing Agreement, and Entity Set. The Entity Set feature is only available with license to Advanced Pricing.
- **Entity Usage:** Grants the entity's usage to one or all operating units so it can be used during pricing engine calls.
- **Global Usage:** When Global Usage is set to Yes for a pricing entity, it can be used across all operating units for processing orders. If No is selected, the entity's usage is restricted to the operating unit that created or owns it.

When security is turned on, a Global box indicating Global Status is dynamically added to the header region of all price lists and modifiers. A user with Maintain access privileges can update the Global box. The Oracle Pricing Administrator can also update the Global Usage settings in the Entity Usage pages.

- **Grantee:** The specific user or users for a Grantee Type that are given permission to view or maintain a pricing entity. Used in combination with a Grantee Type.
- **Grantee Type:** The level to which privileges are granted:
 - Global: Includes all users with access to pricing menus.
 - Operating Unit: Includes users within the named operating unit.
 - Responsibility: Includes users within the named responsibility.
 - User: Specifies a named user.
- **Access Level:** Provides Maintain or View-Only access to a pricing entity:
 - View-Only: Enables the user to view but not update the pricing entity.

Maintain: Enables the user to view and update pricing entities. Not all of the entities support delete capabilities.

Getting Started

What happens after the upgrade to pricing security?

After you upgrade to pricing security, pricing security is not switched on automatically. Pricing users with functional access can still fully view and maintain existing price lists and modifiers as before the upgrade.

Before turning security on, it is recommended that you review and complete the following setup steps for implementing pricing security, **otherwise, pricing users may be unable to query any price lists or modifiers in the pricing windows**. After you have completed the security setup steps, you can set the QP: Security Control profile option to ON.

Note: You must be assigned the Oracle Pricing Administrator responsibility to set up and maintain the pricing security features for all functional pricing users.

Setup Steps for Implementing Pricing Security

After you have upgraded to pricing security, complete the following steps to successfully set up and use pricing security. **Do not turn the QP: Security Control profile option to ON without completing the implementation steps and guidelines**. Otherwise, no price list or modifier list will be visible in the system until you grant a usage to the entity.

Step 1: Mapping Complete Security Access Requirements

Identify and map all price lists, modifiers, and agreement price lists to:

- Operating units that should own and maintain them.
- The users in those operating units who require View-Only or Maintain access to pricing entities.
- Operating units that can use them when pricing transactions.

Step 2: Assigning Ownership of Pricing Entities to Operating Units (Entity Usage page)

The next step is to assign pre-existing price lists and modifiers to an operating unit. You can also select Global Usage settings that determine if the entity is restricted to that operating unit or available across all operating units. See ["Assigning](#)

[Ownership of Pricing Entities to Operating Units \(Entity Usage page\)](#)" on page 14-23 for more information.

Step 3: Creating Privileges (Privileges page)

The next step is to create all the access privileges for all users in all operating units. Based on your mapping of users, you can assign security privileges to grant view or maintain access to a pricing entity. See ["Creating Privileges"](#) on page 14-30 for more information.

Step 4: Setting up Default Security Profile Options for New Pricing Entities

You can use the following profile options to set the default security privileges for newly-created pricing entities:

- QP: Security Default ViewOnly Privilege
- QP: Security Default Maintain Privilege

These profile options are delivered in default settings that maintain the existing functional security features of Oracle Pricing.

Before changing these profile settings, the Oracle Pricing Administrator must map the complete security access requirements for each pricing entity. No security profile option should be changed until these steps have been completed. See ["Setting up Default Security Profile Options for New Pricing Entities"](#) on page 14-48 for more information.

Step 5: Setting the QP: Security Control profile option to ON

The QP: Security Control profile option is the switch that turns security on or off for your installation. Before setting the profile option QP: Security Control to ON, it is recommended that you have completed all the preceding implementation steps. See ["Setting the QP: Security Control profile option to ON"](#) on page 14-48 for more information.

Changes to Pricing windows after Upgrading and Turning Security On

This section summarizes the changes that occur to pricing entities after you upgrade to pricing security and turn security on. Some of the changes, such as the new Global box on price lists and modifiers, are only visible to users after pricing security is turned on.

Changes to Existing Pricing windows

After the upgrade to security, all existing price lists and modifiers are assigned the default entity usage of Global Usage. Global usage enables the pricing entity to be used across all operating units.

When pricing security is turned on, a Global box, which identifies the global usage status, is dynamically added to the header region of all price lists and modifiers. The Global box, which is visible to end-users, can be updated (cleared or selected) by users with Maintain access privileges.

Changes to Price Lists

After the upgrade, the operating unit and global usage settings for an entity can be viewed in the Entity Usage page. An example of the information that displays for a selected entity is outlined in the following table:

Table 14–3 *Default Entity Usage after Upgrade: Entity Usage page*

| Entity Name | Type | Global Usage | Owned by Operating Unit |
|--|--|--------------|---|
| Name of the Entity (for example, Summer Pricelist) | Type of Entity (for example, Standard Pricelist) | Yes | Blank (not assigned to an operating unit) |

The following other changes occur to price lists after the upgrade to pricing security:

- A price list assigned Global Usage can be selected by the pricing engine even if the price list has been assigned to a specific operating unit.

If the price list is unavailable for global usage (for example, a user clears the Global box in the price list header), then the pricing engine will select this price list only if the current operating unit is the same as the one that created the price list.
- Once security is turned on, all new price lists have their view and update properties determined by the pricing security profile options.

- Users who have view-only privileges on a price list as per pricing security rules will be in view-only mode on the price list window. To update a price list, the user requires specific maintain-access privileges.
- Users selecting using Price Lists > Copy Price Lists can copy price lists. A copied price list is assigned the default privilege from the security profile options. The copied price list will belong to the operating unit of the user who created it, regardless of the operating unit assigned to the original price list.

Changes to Modifier windows

- A modifier assigned Global Usage can be selected by the pricing engine even if the modifier has been assigned to a specific operating unit.

If the modifier is unavailable for global usage (for example, a user clears the Global box in the modifier header), then the pricing engine will select this modifier only if the current operating unit is the same as the one that created the modifier.
- After pricing security is turned on, the default view and maintain properties for all new modifiers are determined by the security profile options.
- Users need at least view-only access privileges to display or query modifiers in the Define Modifier window. A user with view-only access privileges can view all list and line limits for a modifier including attributes and transactions for the limit.
- Users with view-only access privileges cannot modify the header information, lines, list or line qualifiers, pricing attributes, and related modifier information. A message or hint will display to notify the user about the view-only status.
- Modifier lines of the type Promotional Goods can attach to price lists that are viewable, as per pricing security, in the Get Price column list of values (LOV) in the Get region.
- In the Modifier Incompatibility Setup window, only those modifier lines belonging to a modifier list that can be viewed or maintained will get queried as per pricing security rules. Modifiers opened by clicking the Modifiers button may be viewed or maintained depending on the privileges defined by the Pricing Security Administrator.
- A copied modifier will inherit the default privileges set by the security profile options. The copied modifier will always belong to the operating unit of the user that created it, regardless of the source operating unit.

Changes to Order Management

All list of values (LOV) for price lists in Oracle Order Management will call the Pricing API, Get_Pricelists(), to return a list of valid price lists. The API returns the price lists owned by the same operating unit as the operating unit of the current user and those price lists where the Global box is selected.

Changes to other Pricing windows

The following table outlines the impact of pricing security and security privileges on various windows in Advanced Pricing:

Table 14–4 *Impact of Pricing Security on Advanced Pricing windows*

| For the following: | Security Privileges are enforced: |
|---------------------------|---|
| Copy Price Lists | Yes. User needs at least view-only access. |
| Copy Modifier | Yes. User needs at least view-only access. |
| Adjust Price List | Yes. User needs maintain access. |
| Add Items to Price Lists | Yes. User needs maintain access. |
| Formulas | No security at present. |
| Agreement Header | Agreement inherits security rules of attached price list. |
| Price List report | Yes. User must have at least view-only access. |
| Modifier Detail report | Yes. User must have at least view-only access. |

Assigning Ownership of Pricing Entities to Operating Units (Entity Usage page)

After the upgrade to pricing security, each newly-created price list and modifier is assigned to the operating unit of the user who created it. Assigning operating unit ownership to pricing entities restricts usage of that entity to within that operating unit. This prevents the use of an entity across all your operating units.

Since pre-existing price lists and modifiers are not assigned a default operating unit, the Oracle Pricing Administrator can:

- Assign or reassign ownership of pre-existing price lists and modifiers to the appropriate operating unit.
- Grant or revoke Global Usage of pricing entities which enables the pricing entity to be accessed across all operating units.

Warning: It is recommended that the Oracle Pricing Administrator assigns ownership to all price lists and modifiers prior to upgrading or implementing Oracle Pricing Security. This can be done using the Bulk Update Entity Usage feature in the Entity Usage page.

Global Usage and the Global box

In the Entity Usage page, the Global Usage column for a given pricing entity reflects the status of the Global box on the price list and modifier windows.

When global usage is enabled for an entity, that entity can be shared across operating units. The entity's usage is not restricted to the assigned operating unit.

When security is turned on, a Global box is added to the header of all modifiers and price lists to indicate the global usage status for the entity:

- If selected, global usage is enabled for the entity.
- If not selected (cleared), global usage is not enabled for the pricing entity, and the entity's usage is restricted to the assigned operating unit.

The Global box, which is not visible to users until the profile QP: Security Control is turned on, is not protected at the window level from a user with Maintain privileges; so a user with Maintain access privileges can select or clear the Global box. However, users with view-only privileges cannot change the Global box.

If a user creates a new pricing entity (such as a price list) and clears the Global box, then the new entity can be used in pricing only by the operating unit of the creating user. If the Global box is left selected (the default value), then the entity can be used

across all operating units when pricing transactions, even though the creating operating unit owns it.

Alternately, the Pricing Administrator can also update the Global box for one entity at a time or in bulk using the Bulk Update Entity Usage page available from the Entity Usage page.

Warning: Pricing users with Maintain access should be advised of the impact of clearing or selecting the Global box.

Default Ownership for Newly Created Pricing Entities

Each price list and modifier that is *newly* created is assigned a unique system-generated Operating Unit identifier. When querying newly-created pricing entities in the Pricing Security pages, the operating unit ownership is displayed in the Owned By Operating Unit field.

Creating Pricing Entity Usage

Complete the following planning and implementation steps before turning on pricing security. This mapping should be completed by someone with complete knowledge about the various pricing users and their operating units, all price lists, modifier lists and any specific business requirements for granting access to any of the many pricing entities.

When mapping your current and proposed security requirements, you may want to prepare separate listings for each entity type: Standard price list, Agreement price list, Modifier, and Pricing Entity Set. Based on the security policy of your organization, the Oracle Pricing Administrator can grant access privileges to the pricing entities, once entity usage has been set up.

For each entity, decide whether:

- The pricing entity can be used by all operating units in pricing transactions.
- The pricing entity should only be used by a specific operating unit.

Identify which entities are to be used across all operating units

For each entity, decide whether:

- The pricing entity can be used by all operating units in pricing transactions.
- The pricing entity should only be used by a specific operating unit.

Identify which entities are to be restricted to only one operating unit

For each entity, decide whether:

- The pricing entity can be used by all operating units in pricing transactions.
- The pricing entity should only be used by a specific operating unit.

Pricing entities used by multiple operating units

For pricing entities that can be used by *multiple* operating units but not *all* operating units:

- Select Yes for Global Usage.
- In the Pricing Entity page, create qualifiers for the specific operating units.

To create pricing entity usage:

1. Navigate to the Entity Usage page where you can:
 - Assign operating unit ownership to pricing entities such as price lists and modifier lists.
 - Assign Global Usage values of Yes or No.

Figure 14–1 Entity Usage page

Advanced Pricing Security

Privileges | Entity Sets | **Entity Usage**

Entity Usage

Please enter search criteria and click 'Go' to search pricing entities. This page is used to grant usage across operating units (global) or to restrict usage. Click 'OK' to save changes.
 * Indicates required field

Search

* Entity Type: Standard Pricelist Entity Name: RB-TEST AGR Go

Related Information

Global Usage: A pricing entity can be used across all operating units when making a pricing request. A pricing entity is originally owned by the creating organization. At creation checking the 'Global' flag allows usage across operating units; unchecking it restricts usage to the owner organization. Ownership/Usage may be updated on this page.

Results: Standard Pricelist(s)

Pricing Entities are displayed per your search criteria. Set 'Global Usage' to 'Yes' to use entity across operating units. Set to 'No' to restrict entity to be used within the specified operating unit. Click 'OK' to confirm changes. Select one or more entities and click 'Bulk Update Usage' to update ownership and/or Global Usage.

Select Standard Pricelist(s) and ... Bulk Update Entity Usage

| Select All Select None | Select Details | Entity Name | Type | *Global Usage | Owned by Operating Unit |
|--------------------------|-------------------|-------------|---------------------|---------------|-------------------------|
| <input type="checkbox"/> | Show | RB-TEST AGR | Standard Price List | No | Vision Brazil |

2. In the Search region, select your search criteria:
 - Entity Type: Select an entity type such as Standard Pricelist or Modifier.
 - Entity Name: Optionally, enter an Entity Name to search for a particular price list or modifier.
3. Click Go to display the search results in the Results region of the page. For each listed entity, the following information is displayed:
 - Details: Click the Expand icon to view additional details about the selected Entity such as its Active Status, Start and End Dates, Description, and Currency.
 - Entity Name: Displays the unique name that identifies the selected entity.

- **Type:** Describes the Entity Type selected such as Standard Price List or Modifier.
- **Global Usage:** Indicates the current usage status of the pricing entity.
- **Owned by Operating Unit:** Displays the name of the Operating Unit associated with the Entity.

Note: For fresh upgrades or installations, the Global Usage is Yes and Owned by Operating Unit fields are blank.

To update Operating Unit and Global Usage for a pricing entity:

1. For each pricing entity listed in the Results region, you can assign a Global Usage and Owned by Operating Unit value. To make bulk changes to multiple pricing entities, use the Bulk Update Entity Usage feature. See ["Using Bulk Update Entity Usage"](#) on page 14-28 for more information.
2. To make the entity available across all operating units, select Yes for Global Usage. Alternately, select No to restrict the entity's use to within the specified operating unit.
3. Select the operating unit in the Owned by Operating Unit field.
4. Click OK to save your changes.

Using Bulk Update Entity Usage

Use the Bulk Update Entity Usage page to quickly apply the same changes across selected pricing entities; for example, to assign the same operating unit across all price lists.

1. Select the pricing entities from the Results region. Alternately, to select all pricing entities on a page, click Select All. If additional entities are listed on subsequent pages, click the Next link, then click Select All. Repeat this process until all the entities to be updated are selected.
2. After the pricing entities are selected, click Bulk Entity Usage to display the selected entity names in the Bulk Update Entity Usage page.

Figure 14–2 Bulk Update Entity Usage page

ORACLE® Advanced Pricing

Home Logout Preferences Help Diagnostics

Security

Privileges Entity Sets Entity Usage

Security > Entity Usage > Bulk Update Entity Usage

Bulk Update Entity Usage

Cancel OK

Click 'OK' to submit your bulk update; Click 'Cancel' to abort your bulk update and return to Entity Usage page.

Review the Selected Entities

Please review carefully the following pricing entities you've selected for update. The update will apply to all these and only these pricing entities.

| Entity Name | Type | Global Usage | Owned by Operating Unit |
|--------------|---------------------|--------------|-------------------------|
| RB AGRE TEST | Standard Price List | Yes | Vision Operations |
| RB-TEST AGR | Standard Price List | No | Vision Operations |

Select Bulk Update Action

☒ Global Usage Yes

☒ Owned By Operating Unit Vision Brazil

Cancel OK

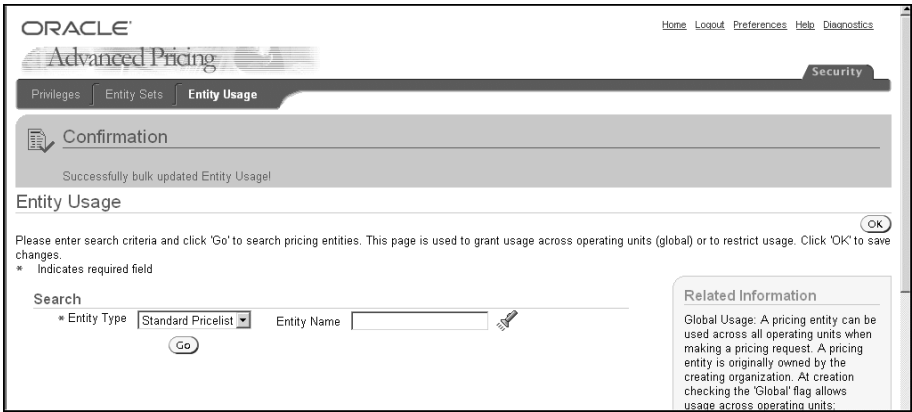
Security | Home | Logout | Preferences | Help | Diagnostics

Copyright 2003 Oracle Corporation. All rights reserved. Privacy Statement

Review the pricing entities listed in the Review the Selected Entities region. Any updates will apply to the listed pricing entities.

3. In the Select Bulk Update Action region, select the Global Usage box and select Yes or No to update all the entities global usage to Yes or No.
4. Select the Owned by Operating Unit box to update all the entities with the specified Operating Unit.
5. Click OK. If successful, a Confirmation message advises that you have successfully bulk updated the entity usage.

Figure 14–3 Bulk Update Entity Usage: Confirmation page



6. Click Ok to save your changes.

Creating Privileges

Security privileges define who can access each pricing entity and the level of access permitted: View Only or Maintain.

You must be assigned the Oracle Pricing Administrator responsibility to grant the following privileges:

- Grant access privileges to functional users at the Global, Operating Unit, Responsibility, or User level:
 - Global: Includes all users with access to pricing menus.
 - Operating Unit: Includes users within the named operating unit.
 - Responsibility: Includes users within the named responsibility.
 - User: Specifies a named user.
- Grant Access level of View Only or Maintain.
- Grant temporary access - for example, to auditors or temporary employees - and give them automatic Start and End effective dates.
- Grant default security privileges for newly created pricing entities. See ["Setting up Default Security Profile Options for New Pricing Entities"](#) on page 14-40 for more information.

You can define rules for a pricing entity that will restrict a specific user or group of users to accessing entities for a specific customer, group of customers or a specified customer hierarchy level.

You can assign privileges using the following setup pages:

- Privileges page: To search for and update existing privileges.
- Express Create Privilege page: To create an access privilege for one specific pricing entity.
- Bulk Create Privileges page: To select multiple pricing entities and create access privileges for a grantee.

Precedence Levels for Multiple Privileges

A user may have access privileges by virtue of their Responsibility. If the user has View Only access to a pricing entity by virtue of their Responsibility, but requires Maintain access, a Maintain privilege can be granted to the user. A Maintain access privilege is a higher privilege than View Only, and therefore, the higher Maintain privilege prevails for the named user.

If a user has a Maintain access privilege to a given entity at any level of their user hierarchy (responsibility, operating unit, and Global), they will have Maintain access regardless of any other privileges.

For example: if a user has Maintain access at their operating unit level but a view-only access at their user level, their Maintain access privilege will have precedence.

Implementation Suggestions for Privileges

Complete the following planning and implementation steps before turning on pricing security. This mapping should be completed by someone with complete knowledge about the various pricing users and their operating units, all price lists, modifier lists and any specific business requirements for granting access to any of the many pricing entities.

1. Identify and list all users with Functional Access to Advanced Pricing Menu

Identify all Responsibilities within your installation that have functional access to the Oracle pricing menus. This will assist in determining whether a pricing entity can be granted access by users with these Responsibilities. When an access privilege is granted at the Grantee Type: Responsibility, then all users with this responsibility will have this privilege.

Add to the listing of all Responsibilities with access to pricing menus, all individual users, by name. Some users may not require Maintain privileges to any pricing entities, but may actually require view-only access. These users should be identified and associated to the pricing entities to which they require view access.

This mapping assists in granting an access privilege to a specific user. A user may have access privileges by virtue of their Responsibility. If the user, whose Responsibility has been granted an access privilege of ViewOnly to a pricing entity, needs to have Maintain access, a privilege may be granted to the user for Maintain which is a higher privilege than that granted to his or her Responsibility.

2. List all users by new access privileges

It is recommended that a listing of all users and their access privileges be maintained by the Pricing Administrator. Once mapping has been completed and access privileges granted, you can query the privileges granted in a variety of ways using the Privileges page of the Security pages. A search by Entity Type such as Standard Price List displays all Standard Price Lists by Entity Name, Grantee Type,

Grantee Name, Access Level (ViewOnly or Maintain}, and Effective Dates. Your listing of new access privileges can be checked against the results.

To create privileges:

- 1. Navigate to the Privileges page.

Figure 14–4 Privileges page

ORACLE[®]

Advanced Pricing

Return to Portal | Logout | Preferences | Diagnostics

Security

Privileges | Entity Sets | Entity Usage

Privileges

OK

This page is used for searching, updating and creating privileges. Please enter search criteria and click 'Go' to search privileges granted.

* Indicates required field

Search

* Entity Type

Standard Pricelist

Grantee Type

Agreement Pricelist
Modifier
Pricing Entity Set
Standard Pricelist

Go

Entity Name

Grantee Name

If Grantee Type is 'Global' or blank, leave Grantee Name blank.

Related Information

Click 'Express Create Privilege' to create a privilege for one specific pricing entity; Click 'Bulk Create Privileges' to select multiple pricing entities and create privileges through three-steps flow.

Results: No Search Conducted

After updating access level and effectivity dates, click 'OK' to save your changes. For deletion of privileges, select one or more privileges and click 'Delete'.

Express Create Privilege

Bulk Create Privileges

Previous

Next

| Select Standard Pricelist Name | Grantee Type | Grantee Name | Access Level | Effective Start Date | Effective End Date |
|--------------------------------|--------------|--------------|--------------|----------------------|--------------------|
| No data exists. | | | | | |

OK

Security | Return to Portal | Logout | Preferences | Diagnostics

Copyright 2003 Oracle Corporation. All rights reserved.

Privacy Statement

- 2. In the Search region, select an Entity Type. Optionally, select additional search criteria such as Entity Name, Grantee Type, or Grantee Name to filter your search results. To view the available values for an Entity Name or Grantee Name, click the Search icon.
- 3. Click Go to display the search results in the Results region of the Privileges page.

14-32 Oracle Order Management Implementation Manual

Figure 14–5 Results: Privilege(s) page

This page is used for searching, updating and creating privileges. Please enter search criteria and click 'Go' to search privileges granted.
* Indicates required field

Search

* Entity Type

Standard Pricelist

 Entity Name

Grantee Type Grantee Name

If Grantee Type is 'Global' or blank, leave Grantee Name blank.

Go

Related Information

Click 'Express Create Privilege' to create a privilege for one specific pricing entity. Click 'Bulk Create Privileges' to select multiple pricing entities and create privileges through three-steps flow.

Results: Privilege(s)
After updating access level and effectivity dates, click 'OK' to save your changes. For deletion of privileges, select one or more privileges and click 'Delete'.

Express Create Privilege

Bulk Create Privileges

Delete

Select Privilege(s) and ...

Select All | Select None

Previous 10 Next 10

| Select Name | Standard Pricelist | Grantee Type | Grantee Name | Access Level | Effective Start Date | Effective End Date |
|--------------------------|--------------------|----------------|--|--------------|----------------------|--------------------|
| <input type="checkbox"/> | 123PRICELIST | User | USER3 | Maintain | 04-Feb-2003 | |
| <input type="checkbox"/> | 2664220 | User | QPDEV | View Only | 10-Mar-2003 | |
| <input type="checkbox"/> | 2664220-1 | User | QPDEV | View Only | 10-Mar-2003 | |
| <input type="checkbox"/> | 2664220-1 | Operating Unit | Vision Operations | Maintain | 17-Jan-2003 | |
| <input type="checkbox"/> | 2739511 | User | QPDEV | View Only | 10-Mar-2003 | |
| <input type="checkbox"/> | 2739511-1 | User | QPDEV | View Only | 10-Mar-2003 | |
| <input type="checkbox"/> | 43460 | User | QPDEV | View Only | 10-Mar-2003 | |
| <input type="checkbox"/> | AAA1 | Global | | Maintain | 28-Mar-2003 | |
| <input type="checkbox"/> | ABCD | Responsibility | Order Management Super User, Vision Operations (USA) | View Only | 31-Jan-2003 | |

- If the message *No data exists displays* in the Results: Privilege(s) region then no privileges exist for the entity.
- If search results display, then you can view or update the privileges directly in the Results: Privilege(s) region.
- 4. To revoke privileges, select the line to delete and click Delete.
 - 5. To assign or update an Access Level, select Maintain or View Only.
 - 6. Enter or update the Effective Start and End Date and click OK to save your changes.

To use Express Create Privilege:

1. To create a privilege for one specific pricing entity, select the entity and click the Express Create Privilege button to display the Express Create Privilege page.

Figure 14–6 Express Create Privilege page

The screenshot shows the 'Express Create Privilege' page within the 'Advanced Pricing' application. The page has a header with 'Advanced Pricing' and a 'Security' tab. Below the header, there are tabs for 'Privileges', 'Entity Sets', and 'Entity Usage'. The 'Privileges' tab is active, and the breadcrumb trail is 'Security > Privileges > Express Create Privilege'. The page title is 'Express Create Privilege'. There are 'Cancel' and 'Submit' buttons at the top right. A note states: 'This page is used to create a privilege for one specific pricing entity. * Indicates required field'. The form is divided into four sections: 'Select Security Entity' with fields for 'Entity Type' (Standard Pricelist) and 'Entity Name' (RB Test - Patch I); 'Select Grantee' with fields for 'Grantee Type' (Operating Unit) and 'Grantee Name' (Vision Brazil); 'Select Access Level' with radio buttons for 'Maintain' and 'View Only' (selected); and 'Specify Duration' with fields for 'Start Date' (10-Apr-2003) and 'End Date'. At the bottom, there are 'Cancel' and 'Submit' buttons, a footer with 'Copyright 2003 Oracle Corporation. All rights reserved.', and a 'Privacy Statement' link.

2. In the Select Security Entity region, select the Entity Type and Entity Name of the pricing entity to be granted privileges.
3. In the Select Grantee region, select one of the following Grantee Types and a Grantee Name:
 - **Responsibility:** Grants the privilege to a specific responsibility such as Pricing User, Guest User (the specific Grantee Names depend on the setup for your specific business).
 - **User:** Grants the privilege to a specific user such as John Smith in the Pricing Department.
 - **Global:** If Grantee Type is Global, leave Grantee Name blank. This makes the privilege available to all users with functional access to pricing menus.
 - **Operating Unit:** Grants the privilege to a specific operating unit. For example, select Vision1 to give a privilege to all users belonging to operating unit Vision1.

4. In the Select Access Level region, select the Access Level to be granted to the Grantee:
 - **Maintain:** Enables users to delete, view, and update pricing entities.
 - **View Only:** Enables users to view but not update the pricing entity.
5. In the Specify Duration region, select the Start and End Date. For example, to provide temporary access to a temporary employee, you could enter a Start Date of 02-Jul-2004 and an End Date of 31-Aug-2004. Alternately, accept the system dates.
6. Click OK.

Using Bulk Create Privileges

Using the Bulk Create Privileges page, you can quickly create and assign privileges to multiple entities for a specific entity type. For example, you could grant access to several price lists to the Operating Unit: Vision France.

1. From the Privileges page, click Bulk Create Privileges to display the Bulk Create Privileges Step 1: Search and Select Pricing Entities page.

Figure 14–7 Bulk Create Privileges page

Advanced Pricing Security

Privileges | Entity Sets | Entity Usage

Search and Select Pricing Entities | Provide Additional Privileges Information | Review and Submit

Bulk Create Privileges Step 1: Search and Select Pricing Entities

[Cancel](#) Step 1 of 3 [Next](#)

This page is used for creating privileges for multiple entities. Search pricing entities, then select the entities before proceeding. Click 'Cancel' to go back to Privileges page.

* Indicates required field

Quick Search

* Search * Based on [Go](#)

Results: Standard Pricelist(s)

[Select All](#) | [Select None](#)

| Select Standard Pricelist Name | Description | Type | Owned By Operating Unit |
|--|----------------------|---------------------|-------------------------|
| <input type="checkbox"/> RB-Test - Patch 1 | | Standard Price List | |
| <input type="checkbox"/> RB-Demo | | Standard Price List | Vision Operations |
| <input type="checkbox"/> RB-Demo 2 | test block pricing | Standard Price List | |
| <input type="checkbox"/> RB-Demo 3 | test block pricing 3 | Standard Price List | |
| <input type="checkbox"/> RB-Test4 | | Standard Price List | Vision Operations |

[Cancel](#) Step 1 of 3 [Next](#)

[Security](#) | [Return to Portal](#) | [Logout](#) | [Preferences](#) | [Diagnostics](#) [Cancel](#)

2. In the Quick Search region, do a search by Entity Type to find the pricing entity or entities to be granted privileges. For example, select Standard Pricelist to search for standard price lists.
3. Optionally, select additional search criteria to refine your search. In the Based on field, select Owned by Operating Unit or Entity Name then enter related details.

For example, to find the Summer Pricelist, select Standard Pricelist as the Entity Type, then select Entity Name and enter Summer Pricelist to specify your search criteria. Click Go to display the search results in the Results region.

4. From the search results, select the entities to be assigned privileges.
5. Click Next to display the Bulk Create Privileges Step 2: Provide Additional Privileges Information page.

Figure 14–8 Bulk Create Privileges Step 2: Provide Additional Privileges Information page

Advanced Pricing

Privileges | Entity Sets | Entity Usage | Security

Search and Select Pricing Entities | **Provide Additional Privileges Information** | Review and Submit

Bulk Create Privileges Step 2: Provide Additional Privileges Information

Fill in the information below before proceeding. Cancel Back Step 2 of 3 Next

* Indicates required field

Select Grantee

* Grantee Type: Grantee Name:

If Grantee Type is 'Global', leave Grantee Name blank.

Select Access Level

Access Level: ☐ Maintain ☒ View Only

Specify Duration

* Start Date: End Date:

(example: 31-Dec-2000) (example: 31-Dec-2000)

Cancel Back Step 2 of 3 Next

Copyright 2003 Oracle Corporation. All rights reserved. [Security](#) | [Return to Portal](#) | [Logout](#) | [Preferences](#) | [Diagnostics](#) [Privacy Statement](#)

6. Select one of the following Grantee Types and select an associated Grantee Name. To display the available values for a Grantee Name, click the Search icon:
 - **Responsibility:** Grants the privilege to a specific responsibility such as Pricing User, Guest User (the specific Grantee Names depend on the setup for your specific business).
 - **User:** Grants the privilege to a specific user such as John Smith in the Pricing Department.
 - **Global:** If Grantee Type is Global, leave Grantee Name blank. This makes the privilege available to all users across operating units.
 - **Operating Unit:** Grants the privilege to a specific operating unit. For example, select Vision1 to assign the pricing entity to operating unit Vision1. Users not from operating unit Vision1 are unable to access this pricing entity.
7. Select the Access Level to be granted to the Grantee:
 - **View Only:** Enables users to view but not update the pricing entity.
 - **Maintain:** Enables users to delete, view, and update the pricing entity.

8. Select the Start and End Date in the Specify Duration region. For example, to grant temporary access to a summer employee, you could enter a Start Date of 02-Jul-2004 and an End Date of 31-Aug-2004. Alternately, accept the default system dates.
9. Click Next to display the Bulk Create Privileges Step 3: Review and Submit page.

Figure 14–9 Bulk Create Privileges Step 3: Review and Submit page

Return to Portal Logout Preferences Diagnostics

Advanced Pricing

Privileges Entity Sets Entity Usage

Search and Select Pricing Entities Provide Additional Privileges Information **Review and Submit**

Bulk Create Privileges Step 3: Review and Submit

Please review the information you provided and click 'Submit'.

Cancel Back Step 3 of 3 Submit

Privileges Information

Grantee Type **Operating Unit**
 Grantee Name **Vision France**
 Access Level **View Only**
 Pricing Entity Type **Standard Pricelist**
 Start Date **10-Apr-2003**
 End Date

Selected Pricing Entities

| Standard Pricelist Name | Description | Type | Owned By Operating Unit |
|-------------------------|----------------------|---------------------|-------------------------|
| RB Test - Patch 1 | | Standard Price List | |
| RB-Demo | | Standard Price List | Vision Operations |
| RB-Demo 2 | test block pricing | Standard Price List | |
| RB-Demo 3 | test block pricing 3 | Standard Price List | |
| RB-Test4 | | Standard Price List | Vision Operations |

Cancel Back Step 3 of 3 Submit

10. Review the information in the following regions before submitting your changes to ensure it is correct:
 - Privileges Information region: Displays the privilege information.
 - Selected Pricing Entities region: Displays the following information about the pricing entities to be granted the privileges listed in the Privileges Information region: Entity Name, Description, Type, Owned By Operating Unit.
11. If changes are required, click Back, or click Cancel to stop the process completely.
12. Click Submit. The Privileges Summary page displays the Privileges Information and Results Summary.

Figure 14–10 Privileges Summary page

Advanced Pricing

Security

PrivilegesEntity SetsEntity Usage

Privileges Summary

Printable Page

Privileges Information

Grantee Type

Operating Unit

Grantee Name

Vision France

Access Level

View Only

Pricing Entity Type

Standard Pricelist

Start Date

10-Apr-2003

End Date

Results Summary

| Name | Description | Type | Status |
|-------------------|----------------------|---------------------|--|
| RB-Demo | | Standard Price List | New privilege has been created successfully. |
| RB-Demo 2 | test block pricing | Standard Price List | New privilege has been created successfully. |
| RB-Test - Patch I | | Standard Price List | New privilege has been created successfully. |
| RB-Demo 3 | test block pricing 3 | Standard Price List | New privilege has been created successfully. |
| RB-Test4 | | Standard Price List | New privilege has been created successfully. |

Return to Privileges

Printable Page

Security

[Return to Portal](#) | [Logout](#) | [Preferences](#) | [Help](#) | [Diagnostics](#)

Copyright 2003 Oracle Corporation. All rights reserved.

[Privacy Statement](#)

Setting up Default Security Profile Options for New Pricing Entities

Security profile options are used to define the default security privileges for newly-created price lists and modifiers. These profiles should be left in default setting (maintaining current functionality) and not be changed until you have decided which users should have automatic privileges of View Only and of Maintain whenever a pricing entity is newly created.

These privileges are automatically created as soon as the creating user saves the new entity. The following discussion will assist you in choosing the combination of settings to meet your security policy.

The following profile options are used to assign the default view-only or maintain access privileges to newly created price lists or modifiers:

- QP: Security Default ViewOnly Privilege: Determines the default *view-only* privileges for NEWLY CREATED price lists and modifiers. View and maintain responsibilities are controlled separately by different profile options. This profile option enables you to set the view-only privileges at one of the following levels: Global (Default), Operating Unit, Responsibility, User, or None. This controls which users (if any) can view newly-created price lists and modifiers.
- QP: Security Default Maintain Privilege: Controls the default *maintain* privileges for NEWLY CREATED price lists and modifiers. For example, if the profile option is set to Operating Unit, then the maintain privileges for that price list or modifier are restricted to the pricing users of the operating unit where the price list or modifier was created. This profile option enables you to set maintain privileges at one of the following levels: Global (Default), Operating Unit, Responsibility, User, or None.

Before setting the security profile options and changing the defaulting privilege profiles, complete all security setup requirements.

Note: To change the access privileges for *pre-existing* price lists and modifiers, use the Security Privileges window.

Warning: The profile option QP: Security Control turns pricing on and off. If you are upgrading or freshly installing the security feature for the first time, ensure you have completed the following steps before you set the default security profile options and turn on security for your installation:

1. You have assessed and mapped out the behavior your business requires when a new price list or modifier is created. See ["Assigning Ownership of Pricing Entities to Operating Units \(Entity Usage page\)"](#) on page 14-23 for more information.
 2. Assigned an operating unit owner for existing pricing entities.
 3. Granted privileges at all levels based on your security policy and needs.
 4. Before turning the profile option QP: Security Control to ON, ensure that you have completed all the set up and implementation steps first, **otherwise, users will be unable to query any price lists or modifiers in the pricing windows.**
-

Security profile options and existing pricing entities

The two security profile options, QP: Security Default Maintain Privilege and QP: Security Default ViewOnly Privilege, do not change the behavior of existing pricing entities. Access to existing pricing entities depends on the privileges already granted by the Oracle Pricing Administrator using the Security Privileges and related pages.

Resolving conflicts between multiple access levels

If the user has two different access privileges to the same pricing entity, the access level of Maintain always prevails. For example, if a pricing user has Maintain access at the User level to certain price lists, and view-only access at the Responsibility level, the user will have Maintain privileges to those price lists.

In all cases, the highest access level (the Maintain access privilege) prevails over the View-Only privilege. This rule applies regardless of what operating unit id the user is in.

Security Profile Option Settings Compared

The following section lists possible combinations of security profile option settings that define the default view and maintain access privileges for newly created pricing entities. Review the combinations of profile option settings and select the combination that suits the requirements for your installation. When security is turned on, a price list and modifier that is newly created will be assigned the default view and maintain security privileges from the profile option settings.

Security Profile ON: Behavior when creating a new Pricing Entity

The following shows behavior by combinations of profile settings when setting up new price lists and modifiers. Available values are: None, User, Responsibility, Operating Unit, and Global.

Table 14–5 Security Profile ON: Behavior when creating a new Pricing Entity

| QP: Default View Only Privilege | QP: Default Maintain Privilege | Behavior while being created | After saving and exiting the Entity's (Price list or Modifier) setup windows |
|---------------------------------|--------------------------------|---|--|
| None | None | Entity can be viewed/updated while being created. | 1. The new entity cannot be viewed or updated by anyone. |
| None | User | Entity can be viewed/updated while being created. | 2. The new entity can be viewed and updated by the user who created it only. |
| None | Responsibility | Entity can be viewed/updated while being created. | 3. The new entity can be viewed and updated by users with the same responsibility as the user who created it only. |
| None | Operating Unit | Entity can be viewed/updated while being created. | 4. The new entity can be viewed and updated by all users within the same OU as the user who created the entity only. |
| None | Global | Entity can be viewed/updated while being created. | 5. The new entity can be viewed and updated by all users. |

Security Profile ON: Behavior when creating a new Pricing Entity for Combination: Values for User

The following show behavior by combinations of profile settings when setting up new price lists and modifiers. Available values are: None, User, Responsibility, Operating Unit, and Global.

Table 14–6 Security Profile ON: Behavior when creating a new Pricing Entity for Combination (QP: Default View Only privilege is User)

| QP: Default View Only privilege | QP: Default Maintain Privilege | Behavior while being created | After saving and exiting the Entity's (Price list or Modifier) setup windows |
|---------------------------------|--------------------------------|---|--|
| User | None | Entity can be viewed/updated while being created. | The user who created it can view the new entity. Nobody can update it. |
| User | User | Entity can be viewed and maintained by user who created it. | The new entity can be viewed and updated by the user who created it only. |
| User | Responsibility | Entity can be viewed and maintained by user who created it. | Similar to the None/Responsibility settings. Except that, the user can still view the entity even if he/she is exempted from the responsibility. |
| User | OU | Entity can be viewed and maintained by user who created it. | Similar to None/Operating Unit settings. Except that, the user can still view the entity even if he/she is exempted from the Operating Unit. |
| User | Global | Entity can be viewed and maintained by user who created it. | Same as None/Global settings. The new entity can be viewed and updated by all users. |

Security Profile ON: Behavior when creating a new Pricing Entity for Combination: Values for Responsibility

The following show behavior by combinations of profile settings when setting up new price lists and modifiers. Available values are: None, User, Responsibility, Operating Unit, and Global.

Table 14–7 Security Profile ON: Behavior when creating a new Pricing Entity for Combination: Values for Responsibility

| QP: Default View Only Privilege | QP: Default Maintain Privilege | Behavior while being created | After saving and exiting the Entity's (Price list or Modifier) setup windows |
|---------------------------------|--------------------------------|---|--|
| Responsibility | None | Entity can be viewed and maintained by user who created it. | All the users can view the new entity with the same responsibility as the user who created it. Nobody can update it. |
| Responsibility | User | Entity can be viewed and maintained by user who created it. | All the users can view the new entity with the same responsibility as the user who created it. And, only the user who created it can update it. |
| Responsibility | Responsibility | Entity can be viewed and maintained by user who created it. | Same as None/Responsibility settings. The new entity can be viewed and updated by users with the same responsibility as the user who created it only. |
| Responsibility | Operating Unit | Entity can be viewed and maintained by user who created it. | All the users can view the new entity with the same responsibility as the user who created it. And, all the users within the same OU as the user who create it can also update it. |
| Responsibility | Global | Entity can be viewed and maintained by user who created it. | Same as None/Global. The new entity can be viewed and updated by all users. |

Security Profile ON: Behavior when creating a new Pricing Entity for Combination: Values for Operating Unit

The following show behavior by combinations of profile settings when setting up new price lists and modifiers. Available values are: None, User, Responsibility, Operating Unit, and Global.

Table 14–8 Security Profile ON: Behavior when creating a new Pricing Entity for Combination: QP: Default View Only Privilege is Operating Unit

| QP: Default View Only Privilege | QP: Default Maintain Privilege | Behavior while being created | After saving and exiting the Entity's (Price list or Modifier) setup windows |
|---------------------------------|--------------------------------|---|--|
| Operating Unit | None | Entity can be viewed and maintained by user who created it. | All the users within the same Operating Unit as the user who created it can view the new entity. Nobody can update it. |
| Operating Unit | User | Entity can be viewed and maintained by user who created it. | All the users within the same Operating Unit as the user who created it can view the new entity. And, only the user who created it can update it. |
| Operating Unit | Responsibility | Entity can be viewed and maintained by user who created it. | All the users within the same Operating Unit as the user who created it can view the new entity. And, all the users with the same responsibility as the user who created it can update it. |
| Operating Unit | Operating Unit | Entity can be viewed and maintained by user who created it. | Same as None/Operating Unit settings. The new entity can be viewed and updated by all users within the same OU as the user who created the entity only. |
| Operating Unit | Global | Entity can be viewed and maintained by user who created it. | Same as None/Global settings. The new entity can be viewed and updated by all users. |

Security Profile ON: Behavior when creating a new Pricing Entity for Combination: Values for Global

The following show behavior by combinations of profile settings when setting up new price lists and modifiers. Available values are: None, User, Responsibility, Operating Unit, and Global.

Table 14–9 Security Profile ON: Behavior when creating a new Pricing Entity for Combination: QP: Default View Only Privilege is Global

| QP: Default View Only Privilege | QP: Default Maintain Privilege | Behavior while being created | After saving and exiting the Entity's (Price list or Modifier) setup windows |
|--|---|---|--|
| Global | None | Entity can be viewed and maintained by user who created it. | All the users can view the new entity. But nobody can update it. |
| Global | User | Entity can be viewed and maintained by user who created it. | All the users can view the new entity. Only the user who created it can update it. |
| Global | Responsibility | Entity can be viewed and maintained by user who created it. | All the users can view the new entity. And, all the users with the same responsibility as the user who created it can update it. |
| Global | Operating Unit | Entity can be viewed and maintained by user who created it. | All the users can view the new entity. And, all the users within the same operating unit as the user who created it can update it. |
| Global | Global | Entity can be viewed and maintained by user who created it. | Same as None/Global. The new entity can be viewed and updated by all users |

The Oracle Pricing Administrator can assign or change ownership of a pricing entity using the Entity Usage page.

The pricing administrator can make changes to Global Usage of price lists and modifiers one by one, or use the Bulk Update Entity Usage function in the Entity Usage page to make changes more quickly.

Warning: It is important that the Oracle Pricing Administrator assigns ownership to all price lists and modifiers prior to upgrading or implementing pricing security. This can be done using the Bulk Update Entity Usage feature in the Entity Usage page. Otherwise, users will be unable to query any price lists or modifiers.

Setting the QP: Security Control profile option to ON

When the profile QP: Security Control is first set to On, a Global check box is dynamically added to the header region of all price lists and modifiers. The Global box indicates if global usage is enabled for the entity. When the Global box is selected, the entity is available across all operating units in your organization.

Note: The Global box is visible to end-users and can be updated (cleared or selected) by users with Maintain access privileges.

You can update the Global box for each price list and modifier window singly, or do bulk updates in the Bulk Update Entity Usage page. See "[Assigning Ownership of Pricing Entities to Operating Units \(Entity Usage page\)](#)" on page 14-23 for more information.

Prior to setting the profile QP: Security Control to On, pricing entities are not assigned to an operating unit. It is important that the Oracle Pricing Administrator assigns ownership to all existing price lists and modifiers prior to turning pricing security on. You can use the Bulk Update Entity Usage feature in the Entity Usage page to assign or reassign global usage values.

After turning pricing security on, all newly created pricing entities are assigned a unique default operating unit identification that makes the creating operating unit the owner of the pricing entity.

The following table shows the behavior of existing pricing entities when QP: Security Control is set to On and no pre-security is assigned:

Table 14–10 Security Profile ON: Behavior of Existing Pricing Entities

| QP: Default View Only Privilege | QP: Default Maintain Privilege | Privileges from Pricing Security Administrator | Behavior |
|---------------------------------|--------------------------------|--|---|
| Not applicable | Not applicable | No privileges granted | Entity cannot be viewed or updated by anybody except the Oracle Pricing Administrator through the security management pages selected from the Oracle HTML user interface. |
| Not applicable | Not applicable | Maintain | Entity can be viewed and updated by the user with Maintain access privileges. |

Overview of Price Lists

This chapter explains implementation considerations for price lists in Basic Pricing for Oracle Order Management.

Price Lists are essential to ordering products because each item entered on an order must have a price. For an order to be booked, the ordered item must be on a price list. Each price list contains basic list header information and one or more pricing lines, pricing attributes, and a secondary price list. Basic price list information includes the price list name, effective dates, currency, pricing controls, rounding factor, and shipping defaults such as freight terms and freight carrier.

Price lists contain prices and currencies for specific products and services. The prices can be defined by:

- Unit price: A fixed price.
- Percent Price: A price which is a percent of the price of another item. This is especially useful in pricing service items.
- Formula: Multiple pricing entities and constant values related by arithmetic operators. For example, you define the price of an item to be a percentage price of another price list line.

For additional information see the Pricing chapter of the *Oracle Order Management User's Guide*.

See:

[Maintaining Price Lists](#) on page 14-49

[Basic Pricing Features](#) on page 14-5

[Using Precedence to Resolve Multiple Price Lists](#) on page 14-52

[Deleting Price Lists](#) on page 14-54

Maintaining Price Lists

Once price lists have been set up Oracle Order Management, you can do the following using price lists:

- Manually add lines to a price list or copy price list lines from one price list to another.
- Add a new group of inventory items to a price list by specifying a range.

- Add a new group of inventory items to a price list by specifying an item category.

See the Pricing chapter of the *Oracle Order Management User's Guide* for additional information on completing these tasks.

Price List Features

Multiple Price lists

Order Management enables you to define and use multiple price lists to serve various business needs. At least one price list must be established to price all orders. A base or corporate price list can be created with all inventory items to establish a base price for each. This price list can be used in the absence of a specific price list.

In Basic Pricing, price lists can only use one Product Context: Item, one Product Attribute: Item Number, and Product Value is the item Id. The defaulted precedence value is 220.

If price list defaulting rules are not defined for a customer or order type, the sales order header does not require a selection of price list. In this event, the pricing engine will utilize precedence to search for and return the price with the lowest precedence value for any given order line from among the several price lists. Multiple price lists may contain the same products and be priced differently using Precedence. The price list containing the item ordered with the lowest precedence value will be selected by the pricing engine (See "[Using Precedence to Resolve Multiple Price Lists](#)" for more information.) Precedence is not used by the pricing engine whenever a specific price list is defaulted to the customer or order type, or selected at order entry.

Price lists can be in several currencies. If you have international sales, you can record transactions in different currencies by defining a price list for each currency. After entering the currency for an order or return, you must choose a price list in the same currency.

If an ordered item is not on any price list, the pricing engine returns an error message that it cannot locate the item and UOM. In such cases, the order cannot be booked with an un-priced line.

Secondary Price Lists

The pricing engine uses secondary price lists when it cannot determine the price for an item using the price list assigned to an order. Primary and secondary price lists must have the same currency. You can only assign one secondary price list to any

specific primary price list, however, you can assign the same secondary price list to multiple primary price lists.

If an item appears on both the primary and a secondary price list with the same effective dates, the pricing engine uses the primary price list to price the item. If an item appears on the primary price list but is not active (the effective end date has passed), the pricing engine uses the price on the secondary price list.

Line-level discounts and modifiers that apply to the primary price list do not apply to the secondary price list.

Multiple Currencies

International sales transactions can be recorded in different currencies by defining a price list for each currency. After entering the currency for an order or return, you must select a price list in the same currency. Currency must match in Price List, Pricing Request, and Assigned Customer profile class.

Negative Pricing

Depending upon the Profile setting of QP: Negative Pricing, you can have either positive or negative prices (or both) on a price list. The profile option OM: Allow Negative Pricing determines if a negative list price or selling price can be entered on an order.

GSA (USA General Services Administration) Price List

If your business requirements require GSA price lists, you can set these price lists up using the modifier window. See Profile Options section for discussion of setting up GSA profile options.

Qualifiers for Price Lists

Qualify by defaulting rules. You cannot define or add any qualifiers to a price list in Basic Pricing. To make a price list, customer or order specific you would need to use the Defaulting Rules in Order Management to default the appropriate price list. These rules can be setup in Order Management at the Customer Setup as well as set up of Order Types.

Active box in Price List windows

The Active box on the price list header indicates if the price list is active or not. If the price list is active, this box is selected (the default for new price lists). You can temporarily or permanently disable the price list. This functionality will also be

used in the conversion where a user must be able to manually activate or deactivate a particular price list.

In query mode the check box is selected, but the underlying value is null. Thus if doing query by example, attempting to retrieve price lists that are active, the user must clear then select the box.

Effective dates: Price lists can have Starting and Ending Dates. This enables you to prepare price list before they are valid and to ensure that they will not be used until their Start Date.

Make manual changes to price lists for effective pricing requests passed to the pricing engine after the change. Use price list and price list line effective dates to retain history.

Customer Default

You cannot create qualifiers for a price list in the pricing Price List window. Price lists are defaulted from the Customer Setup or from the Sales Order window.

- **Customer Setup:** In the customer definition, a price list can be assigned to a customer. At order entry for this customer, this price list will be defaulted from that source.
- **Sales Order window:** In the Sales Order window, a price list may be selected from the LOV of available price lists.
- **Order Type:** In Order Management, order types are defined and may be defined to default a specific price list.

Using Precedence to Resolve Multiple Price Lists

The Segment Number in the Item Context ONLY is defaulted into the Precedence of a price list line or modifier during setup.

Precedence controls which price list or modifier is applied to the order line when multiple are eligible. The price list line or modifier with the highest precedence (lowest Precedence value) is selected. Precedence (or Specificity) means the lower the precedence, the more specific the price or discount.

Price List Lines

The precedence on Price List Lines decides what price the pricing engine should select when an item is found on more than one price list. This could occur if the price list was not specified on the order line and as a result the pricing engine

searched all eligible price lists for an item. Note: It is not possible to price by Item Category in Basic Pricing.

Price Lists Window

This shows an inventory item Id. The item AS54888 as the only item on this special price list. Selecting Pricing Attributes shows a user-created pricing attribute 3.

Figure 14–11 Price Lists Window

The screenshot shows the 'Price Lists' window with the following details:

- Price List Name:** NH23
- Description:** NH23
- Currency:** USD
- Effective Dates:** 02/JAN/2001 -
- Payment Terms:**
- Freight Terms:**
- Freight Carriers:**
- Comments:**
- Active:** ☒
- Round To:** -2

The 'List Lines' tab is selected, showing a table with the following data:

| Product Context | Product Attribute | Product Value | UOM | Primary UOM | Line T |
|-----------------|-------------------|---------------|-----|--------------------------|--------|
| Item | Item Number | AS54888 | Ea | <input type="checkbox"/> | Price |
| | | | | <input type="checkbox"/> | |
| | | | | <input type="checkbox"/> | |
| | | | | <input type="checkbox"/> | |
| | | | | <input type="checkbox"/> | |

At the bottom right, there is a button labeled 'Pricing Attributes'.

Pricing Attributes Window

This displays the Pricing Context of NRCONTEXT, Pricing Attribute of NRATTR1. The value of the Pricing Attribute can be entered in this window. Subsequently an Order for this product., using the Price List NH23 will ask for the value of the Pricing Attribute associated with Item AS54888.

Figure 14–12 Price Lists window: Pricing Attributes

Price Lists

Price List

Name

NH23

Active

☒

Description

NH23

Currency

USD

Round To

-2

Effective Dates

02/JAN/2001

-

Payment Terms

Freight Terms

Comments

List Lines

Second

Product Context

Item

Pricing Attributes

| Product Value | Pricing Context | Pricing Attribute | Operator |
|---------------|-----------------|-------------------|----------|
| AS54888 | NRCONTEXT | NRATTR1 | BETWE |
| | | | |
| | | | |
| | | | |
| | | | |

Static Formulas

You can use static formulas to create a price on a price list. Once static formulas are created, or updated, you must run a concurrent process BEFORE any order entry to update the price on the price list. Otherwise, the pricing engine will not return the new price. Static formulas are calculated once, and related price lists updated.

Deleting Price Lists

You cannot delete price lists or price list lines once they are created and saved. However, price lists can be ended by entering an End Date on the price list header for the entire price list, or on the price list line to effectively remove use of the line to be deleted.

Overview of GSA Pricing

This section describes the implementation of Government Services Administration (GSA) pricing and how this feature can be used for companies that follow the GSA pricing guidelines. GSA pricing can also be used to create minimum price floors.

Oracle Order Management enables you to identify when a selling price of an item falls below a minimum price. This can be used by companies that have Government Services Administration agreements. Commercial customers, otherwise known as non-GSA customers, should not receive a selling price for an item that is equal or less than a price for a GSA customer.

Order Management provides functionality to manage this pricing practice. It does not provide any official GSA pricing policies. The setting up and managing of GSA customers is solely the responsibility of internal corporate policies and practices. Business practices for overriding GSA violation warnings should be determined by the company.

Even though this feature is designed to enforce GSA Pricing, it's functionality can also be used to set price floors.

See:

[GSA Pricing Guidelines](#) on page 14-55

[Defining GSA Pricing](#) on page 14-58

[Setting up GSA Pricing](#) on page 14-57

GSA Pricing Guidelines

GSA policies require that commercial (non-GSA) customers of a company do not receive equal or greater discounts than GSA customers. If the price of the same item is equal or lower then it causes a GSA violation. Oracle Order Management provides functionality to warn when a GSA violation has occurred.

The GSA Advantage policy allows the Order to have several ship-to locations but a single bill-to (GSA Address). Order Management also provides functionality to allow different ship-to addresses on the same order. Order Management also allows you to have more than one bill-to address for a customer, but only the bill-to addresses checked GSA will get the GSA price.

Using Agreements for Minimum Price Floors

Even if your business is not governed by the pricing rules of the Government Services Administration, the GSA Pricing feature can be used to monitor minimum

price floors for items. This provides the ability to define price minimums and issue warnings when selling prices go below this minimum.

GSA Pricing = GSA Discount

In Release 11i Oracle Order Management, the GSA Pricing window actually uses a modifier discount with an application method of New Price to define GSA prices.

At order entry time, when the item is entered for a GSA customer, the base price will be returned from the regular price list. When you leave the order line, the New Price discount will be applied and become the new base price. A price adjustment will be created for the difference of the new price and the base price:

For example:

- Base Price Item A: \$12
- GSA Price Item A: \$10
- Unit Selling Price on Order Line: \$10
- GSA Discount Item A: \$2

A GSA Discount is created for the requirement that some companies need to manage the discounts given to GSA customers. The value of these discounts represents the loss in revenue for an item for doing business with a GSA customer versus a non-GSA customer.

GSA Violation

A GSA Violation occurs when the price of an item for a non-GSA customer is equal to or less than the price of this item in the GSA Price List. In Oracle Order Management there is a profile option that determines how the company wants this violation to be controlled.

In the event of multiple GSA price lists, the violation floor will be set based on the GSA price list with the highest price for the item.

Setting up GSA Pricing

Creating a GSA Customer

To identify a customer that is eligible to receive a GSA Price, select the GSA box on the Customer record of the Order Management tab. You can navigate to the Customer window from Oracle Order Management > Customers > Standard. Only GSA customers can receive prices listed on the GSA price list.

Note: You do not need to specify any customers as being GSA in order to use the GSA feature for monitoring price minimums.

QP: Verify GSA

You must enable this system profile option to use the GSA feature for monitoring price minimums. This profile option controls the comparison between the selling price for items being sold to non-GSA customers and items priced in the GSA Price List. The default value of No must be switched to Yes before the GSA Pricing feature is activated.

OM: GSA Discount Violation Action

This profile option instructs Order Management what to do when a GSA Violation occurs. You can select from the following values:

- Prevent GSA Violation by Causing Error
- Issue Warning when GSA Rules are violated (Default)

Your business practice should dictate how this profile option is set.

GSA Violation Hold

Oracle Order Management has seeded the hold type: GSA Violation Failure. If the OM: GSA Discount Violation Action is set to Prevent GSA Violation by Causing Error, orders that are in GSA violation will automatically be placed on hold. The GSA Violation holds are automatically released if the order or order line is updated and no longer violates the business rule due to which the hold was applied.

Defining GSA Pricing

The Define GSA Pricing window uses modifier functionality for setting up GSA Prices (GSA Discounts), and only accepts GSA Price setup. You cannot use this window to define any other modifiers. See the *Oracle Order Management User's Guide* for detailed information about Define GSA Pricing window and related fields.

Overview of Formulas

You can create mathematical expressions called formulas that the pricing engine uses to calculate the list prices of items and the discounts that apply to them. You can use these formulas to:

- Create a price from a computation as an alternative to entering prices in a price list.
- Calculate a price adjustment. For example, you can instruct the pricing engine to calculate Freight and Special charges by attaching a formula to a discount line.

This enables you to meet different business needs by determining how to use each formula and by establishing controls around the naming and description of each formula.

Note: In Basic Pricing, only static formulas can be used. The concurrent program Build Formula Package should be run if you create a new or update an existing formula expression.

See:

[Seeded Freight and Special Charge Formulas](#) on page 14-60

[Setting up Formulas](#) on page 14-60

Seeded Freight and Special Charge Formulas

Oracle Pricing provides the following seeded formulas to use when setting up freight charges:

- Cost to charge conversion formulas (simple pass-through formulas)
- Cost to charge markup formulas (simple markup formulas)

Each seeded formula features its own formula expression, so you can select an existing seeded formula when setting up freight charges rather than create a new formula and expression. For example, you could select the QP: Cost to charge conversion of Administration Cost formula to convert the Administration Cost pricing attribute to a charge. See the *Oracle Order Management User's Guide* for more information about seeded pricing formulas.

Setting up Formulas

See the *Oracle Order Management User's Guide* for a complete description of the Pricing Formula windows and information about:

- Creating a Pricing Formula
- Defining Factor List Details
- Updating Formula Prices

Overview of Modifiers

This section contains information about modifiers and modifier implementation.

The Define Modifier window is used to set up price adjustments, freight and special charges, simple discounts and surcharges. Modifier lists contain one or more modifier lines. Modifiers have list-level and line-level components. Qualifiers at the list and line levels define a customer's eligibility for the modifier.

For Basic Pricing, the qualifiers determine the eligibility of various modifiers. By defining them at the list and line levels, you can define a customer's eligibility. The modifier level, product and product groups, and attributes also help to determine which modifiers will get applied. In Basic Pricing, pricing phase, incompatibility group, and bucket are defaulted. The pricing engine returns volume breaks and price adjustments back to the calling application.

See:

[Implementing Modifiers](#) on page 14-61

[Types of Adjustments](#) on page 14-62

[Modifiers: How Do I Define My Product Hierarchy?](#) on page 14-63

[Modifier Applications Methods](#) on page 14-64

[Modifier: Additional Controls and Special Considerations](#) on page 14-65

[Manual Adjustments using Modifiers](#) on page 14-66

Implementing Modifiers

There are certain questions you should consider when implementing modifiers, including the following:

- What types of adjustments can I make?
- At what item level can I apply my adjustments?
- How are these modifiers qualified?
- How are my adjustment applied?
- Are there any additional controls and special cases?

Types of Adjustments

You can create three modifier list types in Basic Pricing:

- Discount List
- Surcharge List
- Freight and Special Charges List

There are four modifier line types available in Basic Pricing:

- Discount: Creates a negative price adjustment
- Surcharge: Creates a positive price adjustment
- Freight and Special Charges: Amount applied to the customer invoice for movement of a shipment to a destination. See the Appendix chapter on Freight & Special Charges for details.
- Price Break: Creates price breaks based on item quantity or item amount.

Discounts and Price Breaks can be defined for a Discount list modifier. Similarly, a Surcharge list can include surcharges and price breaks. Freight and special charges are only available from the Freight and Special Charges List. The following graphic shows the four modifier types.

Figure 14–13 Four modifier types

| | |
|--|---|
| Discount | 10% off item A |
| Surcharge | 10% surcharge for purchase If customer class = VIP |
| Freight/Special Charge | 450 currency unit freight cost on entire order |
| Price Break • 1-100 units item A, \$10 off each item A • 101-500 units item A, \$15 off each item A | Point: Order 150 item A, receive 150 item A @ \$15 off each Item A |

Modifiers: How Do I Define My Product Hierarchy?

Modifiers can be defined at the line or order level:

- Discounts, surcharges, and freight and special charges may be defined at the line or order level.
- Price Breaks are only defined at the line level.

Line level modifiers can be defined for an item, an item category, or for all products within your product hierarchy. You can attach pricing attributes when Product Attribute field is ITEM_ALL. Only one context per order line with 100 attributes is allowed for Pricing Attributes.

Example:

- Discount of \$15 on Item A
- Surcharge of 10% for All Items with Grade A
- Price Break for item category- Sodas

Setup Considerations

The Precedence field is defaulted based on the Product Attribute selected and can be updated. When two modifiers qualify to apply to the same line, precedence determines which one applies. The lower the value the higher the precedence.

The unit of measure (UOM) is not mandatory unless the modifier line type is price breaks.

For line-level Discount and Surcharge Lists, the values for the following fields are defaulted:

- Pricing Phase: List Line Adjustment
- Incompatibility: Level 1 Incompatibility
- Bucket: 1

Modifiers: How are they qualified?

Qualifiers are linked individually to modifiers and are used to determine who is eligible for certain modifiers. Oracle provides basic seeded qualifier contexts and attributes. You cannot create new qualifier attributes.

Qualifiers may be grouped to create and/or conditions using grouping numbers. Qualifiers with the same group number create and conditions and require that all

conditions be met. Qualifier groups with different numbers create or conditions indicating that at least one qualifying condition must be met.

Qualifiers can be defined at the list or line level. List Qualifiers are Customer Name, Price Lists, Customer Class, and Customer Site. Line Level Qualifiers are Agreement Name, Agreement Type, Order Type, and Purchase Order. Line level qualifiers are only applicable if the Product Attribute is ITEM_ALL.

Setting up a Common Qualifier using Grouping Number -1

To make a qualifier mandatory for all qualifying conditions, you can use a qualifier grouping number of -1. The pricing engine will always ensure that a common qualifier condition is met before proceeding to other qualifiers.

For example, customers will only get a discount if they order from the Fall Price List. Therefore, the common qualifier, Fall Price List, is assigned the -1 Grouping Number. So the customer will get this discount only if the price list is the Fall Price List and the following qualifiers are met:

- the Customer Name is Computer Store OR
- the Customer Class is High Tech AND the Customer Name is Customer Y

Table 14–11 Example of Common Qualifier using Grouping Number -1

| Grouping No | Qualifier Attribute | Operator | Value From | Value To |
|-------------|---------------------|----------|-----------------|----------|
| -1 | Price List | = | Fall Price List | - |
| 1 | Customer Name | = | Computer Store | - |
| 2 | Customer Class | = | High Tech | - |
| 2 | Customer Name | = | Customer Y | - |

Modifier Applications Methods

You can select a modifier application method which determines how the modifier adjusts the list price. For example, you could select the application method Percent to adjust the price by a specified percentage.

You can select from the following application methods depending on the modifier line type and modifier level (header or line level):

- Percent: Creates a percentage price adjustment on each unit for the percentage specified in the Value field.

- Amount: Creates a fixed price adjustment on each unit for the amount specified in the Value field.
- New Price: Overrides the selling price of this item and makes it the new price.
- Lump sum: Creates a price adjustment for this lump sum amount on the entire line.

For Freight and Special Charges, you can attach a formula to calculate the value of the charge.

Table 14–12 Modifier Application Methods

| Modifier Application Methods | Percent | Amount | New Price | Lump sum | Formula |
|------------------------------|---------|--------|-----------|----------|---------|
| Line Level Discount | X | X | X | - | X |
| Line Level Surcharge | X | X | X | - | X |
| Line Level Freight Charge | X | X | X | X | X |
| Line Level Price Breaks | X | X | X | - | X |
| Order Level Discount | X | - | - | - | X |
| Order Level Surcharge | X | - | - | - | X |
| Order Level Freight | - | - | - | X | X |

Modifier: Additional Controls and Special Considerations

Precedence

The precedence is defaulted from the segment number in the descriptive flexfields. In Basic Pricing, all modifiers are automatically incompatible with one another as the Incompatibility Code is always set as Level 1. Hence the pricing engine will select and apply the modifier to the order line which gives the best price to the customer (best price processing). For example:

- Modifier 1: Discount by Item Category: All 6 Packs of Soda \$1.00, (Defaulted Precedence => 290).
- Modifier 2: Discount by Item: 6 Pack of Pepsi \$2.00, (Defaulted Precedence => 220).
- The engine will select a discount of \$2 when pricing a 6 Pack of Pepsi because that will give the customer the lower price.

Modifier Effectivity

The pricing engine determines if a modifier is valid by evaluating the modifier's Active box and effective dates. The pricing engine evaluates all Active modifiers, then evaluates if the modifier must have current effective dates for the pricing engine to continue. Modifier effective dates can be set at the header and line level. The effective dates of the modifier line must fall within the effective dates for the modifier list.

Unit of Measure (UOM)

The UOM is not a mandatory field for modifier types other than price breaks. If the Primary UOM box is selected on the price list, the pricing engine will evaluate modifiers lines that have the same UOM as the ordered UOM and primary UOM.

For example, Item A has a UOM of EA with Primary UOM checked for the price list line. The ordered UOM for Item A is DZN, then the engine will consider modifier lines with EA and with null values.

Manual Adjustments using Modifiers

To manually create a new selling price on the order line, either a discount, surcharge or new price, you can define a manual discount to decrease the price or a manual surcharge to increase the price. When you move to another line or the line is saved, a new price can be typed and the manual adjustment type selected.

If you have only manual overridable discounts eligible at the line level, you can only decrease the price. If you have only manual overridable surcharges eligible at the line level, you can only decrease the price.

A manual adjustment has the following field value characteristics: Automatic box is cleared at the modifier list and line level, Modifier Line is overridable, and the bucket is null.

The pricing phase determines when you can override the selling price. For lines in the pricing phase List Line Adjustment, you cannot override the selling price without moving to another line or saving the order for lines. For Order level adjustment, you cannot override the selling price without saving the order.

If the profile option QP: Return Manual Discounts Profile Option set to Y, then ALL manual discounts will be returned and all automatic discounts that were not considered will be returned as manual discounts. This is the default value.

If this profile option is set to N, then the pricing engine will return only one automatic or one manual discount. Discounts (automatic or manual) will not be returned as manual discounts.

Applying Manual Adjustments

In the Sales Order window, select Actions and select View Adjustments. In the Modifier Name field, select the LOV to view the unapplied manual adjustments for the line.

In the Sales Order window Line Items Tab, choose Unit Selling Price LOV to apply line level manual adjustments. Type over the Unit Selling Price field to apply manual overridable adjustments for the line.

Overtyping the Unit Selling Price field to apply line level manual overridable adjustments.

To manually override the selling price, verify the profile option *OM: Discounting Privileges* is set to Unlimited. This allows the user to apply all eligible manual adjustments. If it's set to Non-Overridable Only, then only non-overridable manual adjustments can be applied. Also make sure the Enforce List Price check box for the order type is unchecked so that the order allows manual override of the selling price.

Note: If you invoke the Unit Selling Price LOV twice, you may get an error message because the manual adjustment was applied the first time and there are no more manual adjustments eligible.

Overview of Agreements

Oracle Order Management enables you to establish agreements with your customers that let you define the prices, payment terms, and freight terms that you negotiated in your agreement. This section contains information about the implementation considerations of agreements in Oracle Order Management.

See:

[Types of Agreements](#) on page 14-68

[Revising Agreements](#) on page 14-69

[Setting up Agreements](#) on page 14-71

[Defining Special Terms for an Agreement](#) on page 14-70

Types of Agreements

Order Management provides the following Agreement types:

- **Standard Agreements:** Standard Agreements use standard price lists. Price list lines are set up and maintained through the regular Price List Setup window. Use Standard Agreements to define special terms and conditions that are defaulted onto the order, but use prices that are available to other orders. Standard Agreements can be generic or can be specific to a customer or customer family.
- **Pricing Agreements:** Pricing Agreements use Agreement Price Lists. These price lists are setup and maintained through the Agreements window. Use Pricing Agreements to setup special pricing arrangements with either a customer or a group of customers. You are also able to define special terms and conditions that are defaulted onto the order.

Since each agreement type serves different business needs, you need to determine how you will name, number, and use each agreement.

Standard Agreement vs. Pricing Agreement

The following table compares Standard and Pricing agreements:

Table 14–13 Differences Between Agreements

| Standard Agreements | Pricing Agreements |
|--|--|
| Agreement lines not allowed. | Agreement lines required. |
| Associated with standard price list (type PRL). | Associated with agreement price list (type AGR). |
| Maintain and view price list lines through price list window. | Maintain and view price list lines through agreement window. |
| Use each standard price list with multiple standard agreements and to price orders not associated with an agreement. | Use each agreement price list with multiple pricing agreements. Not usable to price orders not associated with an agreement. |
| Cannot revise price list lines using agreement window. | Can revise price list lines using agreement window. |
| Agreement number not automatically created as a qualifier for the associated price list. | Agreement number automatically created as a qualifier for the associated price list. You can only use it to specify the pricing agreement on the order line. |

Revising Agreements

Order Management enables you to maintain multiple versions of the same agreement. This enables you to keep the same agreement name but make changes to the original terms and keep a record of these changes. You can create new versions by changing the Reason number field on the Agreement header.

You can further manage these changes by providing a reason for the revision. You can have many versions of the agreement, but only one version of an agreement can be active. Effective date ranges must also be exclusive for each agreement version.

For Pricing Agreements only, you have line level revision and reason capability that is independent of the Agreement level revision. You must manually end date the line and enter a reason number prior to entering the new agreement line.

Defining Special Terms for an Agreement

Order Management enables you to define special terms for an Agreement. These become defaults to the order lines when an agreement is used on an order. Defaulted attributes include: price list, freight terms, freight carrier, payment terms, accounting rule, and invoicing rule. The values of these attributes will default to the order lines when this agreement is used on an order.

Pricing Agreement Price List and Lines

Pricing Agreement price lists are defined in the Agreements window on the Pricing tab. When you select the Price List Type of Pricing Agreement, the LOV price lists that are displayed in the Price List field only those associated with Agreements. Choose to use an existing Agreement Price List, or create a new Agreement Price List. You can use each agreement price list with multiple pricing agreements. Agreement number is automatically created as a qualifier for the associated agreement price list. Only use this price list to specify the pricing agreement on the order line. You cannot use an agreement price list to price orders not associated with an agreement

Pricing Agreement Price List lines are defined on the bottom region of the agreements window. Here you can define agreement prices for the agreement price list using customer part numbers and inventory item numbers. You can also maintain line revisions and keep track of these with revision reasons.

Customer Items

You can define Pricing Agreements for customer items. The Customer Item must be setup in the inventory system. At order entry time, you can order either by the customer item or its cross referenced internal item.

Single Currency

Both Standard Agreements and Pricing Agreements are for a single currency. This is the currency that is specified on the price list. If you need an agreement to apply to multiple currencies, then you need to setup multiple price lists for each currency, and then setup multiple agreements and attach the price list to each.

Setting up Agreements

Before defining agreements, you need to consider the following implementation considerations to determine how agreements can be used in your business processes.

Note: For more information on setting up Pricing Agreements and Standard Agreements including field descriptions of the Agreement windows, see the *Oracle Order Management User's Guide*.

Agreement and Customer Relationship

Agreements can be defined to be generic, that they can be used by any customer. Agreements can also be defined for a specific customer and all their related customers.

Defining Agreement Types

By setting up different Agreement Types (not to be confused with Type of Agreement), you can categorize agreements into a particular type. A type can be used to limit which agreements can be entered on a particular order type or a type can be used for segmenting for reporting purposes. Agreement type is not mandatory. You define Agreement Types by using the Lookups menu item under the Pricing menu.

Revision Reason

Revision reasons help you track why an agreement was revised. This is an optional field. You can define Revision Reasons by choosing Lookups from the Pricing menu.

Customer Items

You can define Pricing Agreements for customer items. The Customer Item must be set up in the inventory system. Set customer items in Order Management Super User > Items > Customer Items. You can specify the org ID and set up the customer items. The customer item must then be cross-referenced to an internal item.

In the Agreement window, the customer item LOV shows all customer items set up for that customer and the product value has its internal item number defaulted when a customer item is chosen.

Overview of Setting up Contexts and Attributes in Attribute Management

Contexts and attributes are used to define customer, pricing, and product hierarchies. The Attribute Management feature enables you to complete the following:

- Create new pricing contexts and attributes.
- Update existing contexts and attributes.
- Disable existing attributes.

Note: You cannot update seeded contexts or their attributes.

You can access the Attribute Management feature from the following navigation path: Oracle Pricing Manager Responsibility > Setup > Attribute Management.

Creating new pricing contexts and attributes enables you to create additional user-defined data sources to drive pricing actions. The mapping method you define for an attribute determines how the value for the attribute is obtained. In Basic Pricing, you can use the following sourcing method:

- User Entered: Using this mapping method, the attribute value is entered by the user; therefore, attribute mapping is not required.

Note: Attribute Mapping is a mapping method that the pricing engine uses to derive information from other Oracle Applications and non-Oracle data sources.

Although you can view attributes that use attribute mapping, you cannot set up new attributes using Attribute Mapping as the mapping method in Basic Pricing. For more information on attribute mapping, see *Oracle Advanced Pricing Implementation Manual*.

Creating Context and Attributes to be used for Pricing Setup windows

Pricing rules such as pricing attributes are used to drive your pricing actions. You can create new pricing contexts and attributes in the Context Setup window to help define your pricing rules. See ["Creating Context and Attributes"](#) on page 14-74 for more information.

Linking Attributes to a Pricing Transaction Entity

Once you create a context and its attributes, you can link the context-attribute grouping to a specific Pricing Transaction Entity (PTE). For a given PTE, this combination can be used within a pricing setup. Each PTE has its own unique combination of attributes. See ["Linking Attributes to a Pricing Transaction Entity"](#) on page 14-73.

See:

[Creating Contexts](#) on page 14-72

[Linking Attributes to a Pricing Transaction Entity](#) on page 14-80

[Deleting Contexts](#) on page 14-76

[Viewing Information about a Pricing Transaction Entity](#) on page 14-86

Creating Context and Attributes

The following sections describe how to set up contexts and attributes for Oracle Basic Pricing. Once the context is defined, you can create its attributes to define additional values. For example, a pricing context can include pricing attributes (characteristics) such as Item Quantity or Item Amount.

Creating Contexts

Contexts are a group of related pricing elements associated with related attributes. The following table summarizes the contexts and attributes you can create in Basic Pricing using Attribute Management:

Table 14–14 Contexts and Attributes you can create in Basic Pricing

| Context Type | Create new Contexts? | Create new Attributes? |
|-------------------|----------------------|-----------------------------|
| Pricing Context | Yes | Yes |
| Product Context | No | Yes (For Item Context only) |
| Qualifier Context | No | No |

Pricing contexts and their attributes define eligibility for a price list line or modifier. Pricing contexts and attributes can be used for a price list line, as a formula component, or in modifiers.

Product contexts and their attribute define the product hierarchy and are related to product information. For example, the product context "Item" may consist of attributes such as Item Number, Item Category, and All Items.

To create new pricing contexts:

1. Navigate to the Context Setup window.

Figure 14–14 Context Setup window

Context Setup - VOLUME (Volume)

Context

| Type | Code | Name | Description | Seeded | Enabled [] |
|-----------------|--------|--------|----------------|-------------------------------------|-------------------------------------|
| Pricing Context | VOLUME | Volume | Volume Context | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | | | | <input type="checkbox"/> | <input type="checkbox"/> |

Attributes

| Code | Name | Precedence | Application Name | Column Mapped | V |
|---------------|---------------|------------|------------------|---------------------|--------|
| ITEM_QUANTITY | Item Quantity | 800 | Oracle Pricing | PRICING_ATTRIBUTE10 | QP: Nu |
| ITEM_AMOUNT | Item Amount | 810 | Oracle Pricing | PRICING_ATTRIBUTE12 | QP: Nu |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Value Sets

2. Select Pricing Context as the Type.
3. Enter a Code which is a short name for the context. Once created, it cannot be updated.
4. Enter a Name and Description for the context. This creates the name that can be selected from the context field in the pricing setup windows.
The Seeded box is selected automatically if the context is a seeded value. You cannot change a seeded value.
5. Select the Enabled box to make this context available for pricing setup windows. If not selected, the context is disabled and does not display in the Context field on the pricing setup windows. All the attributes defined under this context will also be unavailable for setup.

6. When you have completed your entries, enter the attributes information in the Attributes region. For more information on adding attributes, see: [Creating Attributes](#) on page 14-77.

Deleting Contexts

You cannot delete a context if it has one or more attributes.

Creating Attributes

Once the context is defined, you can create its attributes to determine the specific values which define pricing rules. For example, a pricing context such as Volume may consist of attributes such as Handling Weight or Handling Volume or whatever additional attributes you have chosen to define.

The pricing engine evaluates attributes during engine run time to determine which price lists and modifiers are eligible for the transaction. Attribute values can be derived at the order level, line level, or for both order and line levels. You can define attributes for a given context, and decide which attributes display in the list of values in the Pricing Setup windows.

Note: You must create all new attributes using the Attribute Management setup windows: Oracle Pricing Manager Responsibility > Setup > Attribute Management > Context and Attributes.

To create new attributes:

- 1. Navigate to the Context Setup window and select the context to which you want to add attributes.

Figure 14–15 Context Setup: Attributes region

The screenshot shows a window titled "Context Setup - VOLUME (Volume)". It has two main sections: "Context" and "Attributes".

Context Section:

| Type | Code | Name | Description | Seeded | Enabled |
|-----------------|--------|--------|----------------|-------------------------------------|-------------------------------------|
| Pricing Context | VOLUME | Volume | Volume Context | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | | | | <input type="checkbox"/> | <input type="checkbox"/> |

Attributes Section:

| Code | Name | Precedence | Application Name | Column Mapped | V |
|---------------|---------------|------------|------------------|---------------------|--------|
| ITEM_QUANTITY | Item Quantity | 800 | Oracle Pricing | PRICING_ATTRIBUTE10 | QP: Nu |
| ITEM_AMOUNT | Item Amount | 810 | Oracle Pricing | PRICING_ATTRIBUTE12 | QP: Nu |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

At the bottom right of the window is a button labeled "Value Sets".

- 2. In the Attributes region, enter the Code which is a short name for the attribute. This is an internal name that is unique for a given attribute. Once created, it cannot be updated.
- 3. Enter a display Name for the attribute.
- 4. Enter a numeric Precedence value which decides the processing sequence of qualifier/pricing attributes. For example, if two price list lines qualify for the same item, then the line with the higher precedence (lower precedence number) is given. Precedence numbers in the series of 5's and 10's are reserved for seeded pricing attributes and should not be used.
- 5. Enter the Application Name that created this attribute. If an Application Name is not entered, the system selects Oracle Pricing as the default creator of the attribute.

6. Select a Column Mapped value to which an attribute will be mapped. The list displays the names of the unused columns only.
7. Select a Value Set to define a domain of valid values for an attribute. The Datatype value for the the selected Value Set displays in the Datatype field.

Alternately, to create a new Value Set or view an existing one, click Value Sets. Once you have created a new value set, you can select the newly created value from the Value Set field.

Note: If you want to replace a Value Set of an attribute, the new Value Set must be the same datatype as the old one.

Figure 14–16 Value Sets window

Value Set Name:

Description:

List Type: Security Type:

Format Validation

Format Type: Maximum Size: Precision:

☒ Numbers Only (0-9)

☐ Uppercase Only (A-Z)

☐ Right-justify and Zero-fill Numbers (0001)

Min Value: Max Value:

Value Validation

Validation Type:

8. Save your work.

Deleting Attributes

Attributes already used in pricing setup windows cannot be deleted.

Linking Attributes to a Pricing Transaction Entity

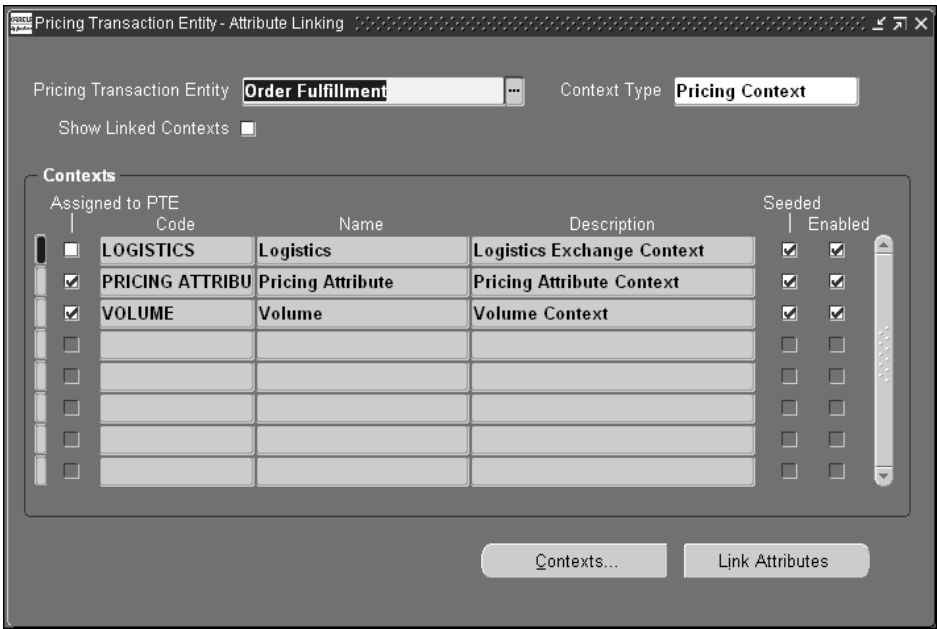
Once you have created the context and its attributes, you can link an attribute grouping to a specific Pricing Transaction Entity (PTE).

You must link the context and attribute combination to a PTE, so that the context and attributes become available in the pricing setup windows for that PTE. Each PTE has its own unique combination of attributes.

To link pricing attributes to a Pricing Transaction Entity:

1. Navigate to the Pricing Transaction Entity-Attribute Linking window.

Figure 14–17 Pricing Transaction Entity-Attribute Linking window



2. Select a Pricing Transaction Entity such as Order Fulfillment. Alternately, you can search for a Pricing Transaction Entity by clicking the Find icon.
3. Select Pricing Context as the Context Type.
4. Optionally, select the Show Linked Contexts box to display only those contexts assigned to the selected Pricing Transaction Entity.

The context(s) matching the criteria for the selected PTE and Context Type display in the Contexts region.

5. Select the context whose attributes are to be linked to the selected PTE. If the Assigned to PTE box is not selected, then the attributes have not been created/selected for that context in the given PTE.
6. Click Link Attributes to display the Link Attributes window.

Figure 14–18 Link Attributes window

| Code | Name | Precedence | Level | Attribute Mapping Method | LOV Enabled | Use |
|---------------|-----------------------|------------|-------|--------------------------|-------------------------------------|--------------------------|
| ITEM_QUANTITY | Item Quantity | 800 | LINE | USER ENTERED | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| PERIOD1_ITEM | Period1 Item Amount | 850 | LINE | ATTRIBUTE MAPPING | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| PERIOD1_ITEM | Period1 Item Quantity | 820 | LINE | ATTRIBUTE MAPPING | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| PERIOD2_ITEM | Period2 Item Amount | 860 | LINE | ATTRIBUTE MAPPING | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| PERIOD2_ITEM | Period2 Item Quantity | 830 | LINE | ATTRIBUTE MAPPING | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| PERIOD3_ITEM | Period3 Item Amount | 870 | LINE | ATTRIBUTE MAPPING | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| PERIOD3_ITEM | Period3 Item Quantity | 840 | LINE | ATTRIBUTE MAPPING | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ITEM_AMOUNT | Item Amount | 810 | LINE | USER ENTERED | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Attribute Mapping

7. Select the Code (short name) of the attribute to be linked to the PTE.
8. Select an attribute level (LINE) that determines the level from where the attribute will be sourced.
9. Select USER ENTERED as the Attribute Mapping Method. Since the attribute value is entered by the user, attribute mapping is not required.
10. Select LOV Enabled if you want the attribute to display in the list of values of the pricing setup windows.

Figure 14–19 Link Attributes window (continued)

The screenshot shows a window titled "Link Attributes - (Order Fulfillment) (Pricing Context - Volume)". It contains a table with the following columns: Code, Name, Precedence, Use in Limits, Attribute Mapping Enabled, and Attribute Mapping Column Mapped. The table lists several attributes, including ITEM_QUANTITY, PERIOD1_ITEM, PERIOD2_ITEM, PERIOD3_ITEM, and ITEM_AMOUNT, each with a corresponding name, precedence value, and mapping information. A scroll bar is visible on the right side of the table. Below the table, there is a button labeled "Attribute Mapping".

| Code | Name | Precedence | Use in Limits | Attribute Mapping Enabled | Attribute Mapping Column Mapped |
|---------------|-----------------------|------------|-------------------------------------|-------------------------------------|---------------------------------|
| ITEM_QUANTITY | Item Quantity | 800 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | PRICING_ATTRIBUTE10 |
| PERIOD1_ITEM | Period1 Item Amount | 850 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | PRICING_ATTRIBUTE13 |
| PERIOD1_ITEM | Period1 Item Quantity | 820 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | PRICING_ATTRIBUTE3 |
| PERIOD2_ITEM | Period2 Item Amount | 860 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | PRICING_ATTRIBUTE14 |
| PERIOD2_ITEM | Period2 Item Quantity | 830 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | PRICING_ATTRIBUTE1 |
| PERIOD3_ITEM | Period3 Item Amount | 870 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | PRICING_ATTRIBUTE15 |
| PERIOD3_ITEM | Period3 Item Quantity | 840 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | PRICING_ATTRIBUTE11 |
| ITEM_AMOUNT | Item Amount | 810 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | PRICING_ATTRIBUTE12 |

- Use in Limits box: This field is view-only in Basic Pricing.
 - Attribute Mapping Enabled: Indicates if the attribute is to be used in Attribute Mapping. This field is view-only in Basic Pricing. This box is cleared for all seeded attributes to avoid the mapping of unwanted attributes.
 - Attribute Mapping Status: This box is selected (or cleared) automatically by the concurrent program which generates the Build_Contexts API for mapped attributes. This field is view-only in Basic Pricing.
 - Used in Setup box: Indicates if the attribute is used in an active pricing setup such as a price list, modifier, formula, or qualifier.
11. Save your work. The attribute is now linked to a Pricing Transaction Entity.

Note: You can view the newly linked context in the Pricing Transaction Entity-Attribute Linking window. The Assigned to PTE box indicates that the context and its attributes have been assigned to this PTE. The attributes you created can be viewed in the pricing setup windows.

12. Optionally, click Contexts to create a new context, or to update, enable, or view an existing context.

Attribute Mapping window

For attributes with ATTRIBUTE MAPPING as the Attribute Mapping Method, you can view additional mapping information about the attribute in the Attribute Mapping window.

From the Link Attributes window, select the attribute and click Attribute Mapping to view the Attribute Mapping window.

Figure 14–20 *Attribute Mapping window*

Attribute Mapping - (Order Fulfillment - Item - All Items)

| Request Types | Application name | Request Type | Description |
|---------------|------------------|--------------|------------------------|
| | Oracle Pricing | ASO | Order Capture |
| | | OKC | Oracle Contracts Core |
| | Oracle Pricing | ONT | Order Management Order |
| | | | |

Header Level

Global Object name

Seeded Source Type

User Source Type

Seeded Value String

User Value String

Seeded ☐ Enabled ☒

Line Level

Global Object name

Seeded Source Type

User Source Type

Seeded Value String

User Value String

Seeded ☒ Enabled ☒

Note: You cannot display this window if:

- The Attribute Mapping Method is not Attribute Mapping.
- No Request types are defined for the Pricing Transaction Entity.

Request types region

In this region, you can view the enabled Request types defined for the given PTE, including Header or Line Level information for the selected attribute. The Level information displays in either the Header Level or Line Level regions in the Attribute Mapping window:

Table 14–15 Attribute Mapping Method attributes: Viewing Header and Line Level Information

| If the following Level is selected for an attribute in the Link Attributes window... | Then information about the attribute displays in the Attribute Mapping window at the following Level: |
|--|---|
| BOTH | Header Level and Line Level |
| LINE | Line Level |
| ORDER | Header Level |

- Application Name: This column indicates the Application that created the mapping rule.

Header Level region

Displays header-level information if the Attribute Mapping level of the attribute, defined in the Link Attributes window, is Order or Both. This region will be grayed out if the level is Line. The following fields are displayed in the Header Level region.

Note: The fields are view-only and cannot be updated.

- Global Object name: Displays the value for the Header/Line Structure defined in the Request Types tab of the Pricing Transaction Entity setup window.
- Seeded Source type: It will have value if the record is seeded. This field is protected against update. If user wants to modify seeded mapping, user can enter data into corresponding user field (user source type).
- User Source type: The possible values of source type are:
 - Application Profile: Uses a profile option to get the default value for the attribute.
 - PL/SQL API: Attribute can be sourced directly from a global structure defined for the given source system. The following flexfield window will pop up. For OM all the record structures are defined in the package OE_ORDER_PUB. Two record structures are available:

OE_ORDER_PUB.G_LINE contains all the possible values of a sales order line.

OE_ORDER_PUB.G_HDR contains Fields from Order headers. Structure of the Line_rec_type and header_rec_type can be obtained from the Manufacturing Open Interface Manual. (For IStore/OC the equivalent global structures are defined in the package ASO_PRICING_INT.)

- PL/SQL API Multi-Record: A custom API (must be a function) that returns multiple values.
- Constant Value: Constant: Uses a constant value that will always be mapped to this attribute for the given condition.
- System Variable: A system variable that will be mapped to the attribute for the given condition such as SYSDATE.
- Value String (User and Seeded): Displays the value of the Seeded or User Source Type. Seeded value string will have seeded value.
- Seeded box: Indicates if the mapping rule is seeded.

Line Level region

This region displays line level information about an attribute if the Level defined in Link Attributes window is LINE or BOTH. This region will be grayed out if the Attribute Level in the previous window is ORDER.

The remaining fields are the same as defined for the Header level region.

Build Attribute Mapping Rules Program

The Build Attribute Mapping Rules program generates the attribute mapping rules for all attributes with the Attribute Mapping Enabled box selected. After the program is run, the Attribute Mapping Status box remains selected for those attributes that were successfully mapped.

Note: This box is cleared for all seeded attributes to avoid the mapping of unwanted attributes.

Any new attributes used after the last run of this program are mapped dynamically to prevent any attributes from not getting mapped.

Viewing Information about a Pricing Transaction Entity

A Pricing Transaction Entity consists of a group of applications that point to the same setup data and attributes, and includes Request Types and Source Systems:

- A Source System is the application that captures the pricing setup data. For example iStore, Oracle Pricing and Oracle Marketing generate modifiers. Hence these applications could be source systems.
- A Request Type identifies the type of transaction that is being priced.

All applications belonging to the same pricing transaction entity have the same set of attributes available to them. This ensures that the applications sharing the same data always give the same price for an item regardless of the request type.

Assigning contexts and attributes to a Pricing Transaction Entity narrows the search parameters because the search engine only needs to evaluate the setup data generated by the source systems defined for that Pricing Transaction Entity.

Note: In Basic Pricing, the Pricing Transaction Entity - Source System and Request Types window is view-only: you can view the request types and source system for a given Pricing Transaction Entity but not make any updates.

Seeded PTE's

There are four seeded PTEs in Oracle Pricing:

- Order Fulfillment
- Intercompany Transaction
- Logistics
- Demand Planning

The following tables display the seeded Request Types and Source Systems for each PTE:

Table 14–16 Pricing Transaction Entities: Request types and source systems

| Pricing Transaction Entity | Source Systems | Request Types |
|-----------------------------------|---------------------------------|--|
| Order Fulfillment | AMS (Oracle Marketing) | ASO (Order Capture) |
| | ASO (Oracle Order Capture) | OKC (Oracle Contracts Core) |
| | OKC (Oracle Contracts Core) | ONT (Order Management Order) |
| | QP (Oracle Pricing) | |
| Intercompany Transaction | INV (Oracle Inventory) | IC (Inter Company Invoicing) |
| | QP (Oracle Pricing) | |
| Logistics | FTE (Oracle Transportation Hub) | FTE (Logistics Exchange Load Shipment) |
| Demand Planning | QP (Oracle Pricing) | MSD (Demand Planning) |

To view a Pricing Transaction Entity (PTE)

1. Navigate to the Pricing Transaction Entity - Source System and Request Types window. In Basic Pricing, this window is view-only: you can view the request types and source system for a given Pricing Transaction Entity but not make any updates.
2. Click the Source Systems tab.

Figure 14–21 Pricing Transaction Entity - Source System and Request Types window: Source Systems tab

Pricing Transaction Entity - Source System and Request Types

Pricing Transaction Entity

Name:

Description:

Source Systems Request Types

| Code | Description | Enabled |
|---|---------------------------------|-------------------------------------|
| <input checked="" type="checkbox"/> AMS | Oracle Marketing | <input checked="" type="checkbox"/> |
| <input checked="" type="checkbox"/> ASO | Oracle Order Capture | <input checked="" type="checkbox"/> |
| <input checked="" type="checkbox"/> OKC | Oracle Contracts Core | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> OKS | Oracle Contracts Service Module | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> QP | Oracle Pricing | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | | <input type="checkbox"/> |

A source system defines the application generating setup data. The can view the following fields in the Source Systems tab:

- Code and Description: The short name and Description for the source system application.
 - Enabled box: Indicates if the Source System is activated.
3. Click the Request Types tab.

Figure 14–22 Pricing Transaction Entity - Source System and Request Types window: Request Types tab

| Code | Description | Header Structure | | Header View | | Enabled |
|------|-------------|------------------|------------|----------------|-----------|-------------------------------------|
| | | Line Structure | Line View | Line Structure | Line View | |
| ASO | Order Captu | ASO_PRICIN | ASO_PRICIN | | | <input checked="" type="checkbox"/> |
| OKC | Oracle Cont | OKC_PRICE | OKC_PRICE | | | <input checked="" type="checkbox"/> |
| ONT | Order Mana | OE_ORDER | OE_ORDER | | | <input checked="" type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |

- Code and Description: A short name and Description for the request type.
- Header or Line Structure and/or a Header and Line View: Displays the request type which may include a global record structure or a view defined to map the data.
- Enabled box: Indicates if the request type is activated.

Note: A request type cannot be created for more than one Pricing Transaction Entity.

A request type cannot be deleted if a mapping rule is defined for it.
A source system cannot be deleted if it is used in a setup for a given Pricing Transaction Entity.

Global Structures

The table below shows examples of the global structures at the order level and line level for the different request types of the Order Fulfillment Pricing Transaction Entity.

Table 14–17 Global structures

| PTE | Request Type | Order Level Global Structure | Line Level Global Structure |
|--------------------------|------------------------|-------------------------------------|------------------------------------|
| Order Fulfillment | Order Capture | ASO_PRICING_INT.G_HEADER_REC | ASO_PRICING_INT.G_LINE_REC |
| Order Fulfillment | Oracle Contracts Core | OKC_PRICE_PUB.G_CONTRACT_INFO | OKC_PRICE_PUB.G_CONTRACT_INFO |
| Order Fulfillment | Order Management Order | OE_ORDER_PUB.G_HDR | OE_ORDER_PUB.G_LINE |
| Intercompany Transaction | Intercompany Invoicing | INV_IC_ORDER_PUB.G_HDR | INV_IC_ORDER_PUB.G_LINE |

Summary of Attribute Levels for Pricing Setup windows

The following describes the attributes that display in each of the pricing component setup lists based on the level assigned to the attribute.

Price Lists window

The values for the pricing attributes display at the Line attribute level.

Modifier List Setup window

The values for pricing attributes display at the Line attribute level.

Formula Lines and Factors List

Since a formula can be applied either at order level or at line level, it is not possible at the definition time to restrict the attributes appearing in the lists based on the attribute level. There will be no level-based restrictions in the list of values.

Pricing Profile Options

Topics covered in this chapter include the following:

- [Overview](#) on page 15-2
- [Profile Options](#) on page 15-2
- [Setup Profile Options Summary](#) on page 15-2

Overview

This chapter contains information on profile options and system parameters specific to Oracle Basic Pricing.

Profile Options

During implementation, the value for each user profile option is defined to specify how Oracle Pricing controls access to and processes data. The system administrator typically sets up and updates profile option values. For more information, see *Oracle Applications System Administrator's Guide*.

Setup Profile Options Summary

The following table [Table 15–1, "Profile Options for Oracle Pricing \(Basic Pricing\)"](#) indicates whether you can view or update the profile option and at which System Administrator level the profile options can be updated:

- User
- Responsibility
- Application
- Site levels

The following terms describe the available permissions:

- View & Update: You can view and update the profile option.
- View: You can view the profile option.
- No access: You can neither view nor update the profile option.

The profile option may be either required or optional (Required column). If Required, you must provide a value; if the cell indicates Optional, you do not need to provide a value.

The profile options table indicates the default value for each profile option (Default Value column); you only need to change its value you do not want to use the default value. The phrase No Default indicates that there is no default value for the profile option; it does not indicate a default value of No.

After the table, the text describes the meaning of each profile option.

Table 15–1 Profile Options for Oracle Pricing (Basic Pricing)

| Profile Option | Sys Admin Site | Sys Admin App | Sys Admin Resp | Sys Admin User | Required | Default Value |
|---|----------------|---------------|----------------|----------------|----------|--|
| QP: Allow Duplicate Modifiers | View & Update | View Only | View Only | View Only | Required | Yes |
| QP: Blind Discount Option | View & Update | View & Update | No access | No access | Required | Yes |
| QP: Debug | View Only | View Only | View Only | View Only | Optional | Request Viewer Off |
| QP: Inventory Decimal Precision | View & Update | View Only | View Only | View Only | Required | 10 |
| QP: Item Validation Organization | View & Update | View Only | View Only | View Only | Required | No Default |
| QP: Negative Pricing | View & Update | View Only | View Only | View Only | Required | No Default |
| QP: Price Rounding | View & Update | View Only | View Only | View Only | Required | Blank |
| QP: Qualify Secondary Price Lists | View & Update | View Only | View Only | View Only | Optional | No |
| QP: Return Manual Discounts | View & Update | View Only | View Only | View Only | Optional | Yes |
| QP: Satisfied Qualifiers Option | View & Update | View & Update | View & Update | View & Update | Optional | Yes |
| QP: Security Control | View & Update | View Only | View Only | View Only | Optional | Off |
| QP: Security Default Maintain Privilege | View & Update | View Only | View Only | View Only | Required | Blank |
| QP: Security Default ViewOnly Privilege | View & Update | View Only | View Only | View Only | Required | Blank |
| QP: Selling Price Rounding Options | View & Update | View Only | View Only | View Only | Optional | Individual : = round(list price) + round(adj) |

Table 15–1 Profile Options for Oracle Pricing (Basic Pricing)

| Profile Option | Sys Admin Site | Sys Admin App | Sys Admin Resp | Sys Admin User | Required | Default Value |
|-------------------------------|----------------|---------------|----------------|----------------|----------|---------------|
| QP: Set Request Name | View & Update | View Only | View Only | View Only | Required | Blank |
| QP: Unit Price Precision Type | View & Update | View Only | View Only | View Only | Required | Standard |
| QP: Valueset Lookup Filter | View & Update | View Only | View Only | View Only | Optional | Yes |
| QP: Verify GSA Violations | View & Update | View Only | No access | No access | Required | No |

QP: Allow Duplicate Modifiers

Default Value: Yes

This profile option enables duplicate modifier lines to be created for the same modifier list. A modifier line is considered a duplicate if any of the following attributes match those of another modifier line in the same modifier list:

- List Line Start Date Active
- List Line End Date Active (Lines with overlapping dates are considered duplicates)
- Modifier Level Code (Order/Line)
- Automatic Flag (Selected/Cleared)
- Product UOM code
- Product Attribute
- Product Attribute Value
- Pricing Attributes
- Set of Qualifiers

Values

The possible values for this profile option are:

- Yes: Duplicate modifiers can be copied within the same modifier list for Basic Pricing.

- No: Duplicate modifiers cannot be copied within the same modifier list for Basic Pricing.

This profile option is visible and can be updated at the site level.

QP: Blind Discount Option

Default Value: Yes

The default value for this profile option should only be changed if you never define blind discounts.

If you never define blind discounts, set this profile option to No to bypass part of the search engine processing. A blind discount is a modifier that has all of the following qualities:

- No List Qualifiers on the Modifier List Header
- No Line Qualifiers on the Modifier
- No Products or Pricing Attributes

Note: If your business must define blind discount modifiers, make sure that this profile option is set to Yes. Otherwise these modifiers will not be selected by the Search Engine.

Values

The possible values for this profile option are:

- Yes: Blind Discounts are enabled.
- No: Blind Discounts are disabled, that is, bypass Blind Discount processing in the Search Engine.

This profile option is visible and can be updated at the site and application levels.

QP: Debug

Default value: Request Viewer Off

Values

- Request Viewer On: When set to on, the Request Viewer captures pricing request details into the pricing debug tables and debug log information into the debug log table. The debug log text file is also created.
- Request Viewer Off: When set to off, nothing is written into pricing debug tables and debug log table. The debug log text file will not be created.
- Request Viewer On, but Debug Log is not visible in Viewer: When this is set, the Request Viewer captures pricing request details into the pricing debug tables, but debug log information is not written into the debug log table. The debug log text file will be created.

Note: Another profile option, QP: Set Request Name, can be used in conjunction with the QP: Debug profile option. When the QP: Set Request Name is set to Yes, the Request Name field will be prefixed with the Order ID.

This profile option can be updated at the user level and is active for the transactions of the user who set this profile option—other users' transactions are not affected.

QP: Inventory Decimal Precision

Default value: 10

Used to set maximum decimal precision for unit of measure (UOM) conversion when calculating pricing quantity. If not set, the default is set to 10 digits decimal precision.

Example 1

Consider the following set up:

Primary UOM = YR (year)

Order UOM = MTH (month)

Order Quantity = 12

The pricing engine rounds the pricing quantity based on the decimal precision setting. If the default precision is 10 digits, then the resulting pricing quantity will be $12 * (1/12) = 0.999999999999...$ the number will be rounded to 1YR.

Example 2

Consider the following set up:

Primary UOM = DZ (dozen)

Order UOM = EA (each)

Order Quantity = 16

The pricing engine rounds the pricing quantity based on the decimal precision setting. If a user sets the Profile QP: Inventory Decimal Precision to 6 digits, then the resulting pricing quantity is calculated as follows: $16 * (1/12) = 1.33333333333333...$ which is rounded to 1.333333 DZ.

QP: Item Validation Organization

Default Value: None

Set this profile option, by site or responsibility, to an organization at the level in your organization hierarchy at which you set prices for items.

This profile option indicates the Oracle Manufacturing organization that items are validated and viewed against when entering items in the Price List or Modifier windows. The possible values for this profile option are all inventory master organizations currently defined.

This profile option is visible and can be updated at the site and responsibility levels.

QP: Negative Pricing

Default value: No

The default value should only be changed if your business needs to define a negative price on a price list line.

Note: Controls whether a negative price can be entered in the Price List setup window.

Values

- Yes: Enables a negative price to be entered.

- No: Does not enable a negative price to be entered.

This profile option is visible and can be updated at the site and application levels.

QP: Price Rounding

Default value: Blank

This profile option controls how the value for the rounding factor is derived and used in price lists and related windows. The Price List window rounds, stores and displays the list price based on this profile option setting.

The value entered in the Round To field from the price list is used to store the rounded value, while Currency Precision determines the displayed list price.

For example, if the Round To value is -2 and the Currency Precision is -5, the following list prices display:

115.24000
9.23000
100.00000

If the QP: Price Rounding profile option is set to Enforce Currency Precision, then the value in the Round To field in the Price Lists window cannot be updated. Also, the values permitted for the rounding factor will be limited to the price list currency precision.

The following table shows how different settings for QP: Price Rounding affect the list price. For this example, assume that the price list price = 6.15 and the Markup = 1.52% resulting in 6.24348.

Table 15–2 Rounding Example

| List Price | If the QP:Price Rounding value is: Blank (Default) | If the QP:Price Rounding value is: Enforce Price List Rounding Factor | If the QP:Price Rounding value is: Enforce Currency Precision |
|------------------|--|---|---|
| - | Round To value on Price List: -2 | Round To value on Price List: -2 | Round To value on Price List: -4 |
| List Price | 6.15 | 6.15 | 6.15 |
| Markup | 1.52 % | 1.52 % | 1.52 % |
| List Price (new) | 6.24348 | 6.24 | 6.2435 |

Values

Blank (Default): If this option is selected, the following occurs:

- No limit is imposed on the number of places that can be entered on the price list after the decimal point.
- The value for a price list line is not rounded.
- The list price that displays will not be rounded by either Currency Precision or the Round To value.
- Static formula calculation results will not be rounded.
- The Round To value specified for the price list rounds the pricing engine results.

Enforce Price List Rounding Factor: If this option is selected, the value entered in the Round To field of the Advanced Pricing - Price Lists window is used for:

- Rounding the value on the price list line.
- Rounding the pricing engine calculation results.
- Calculating the results for static formula calculations.

Note: The currency precision setting determines the display of the list price.

Enforce Currency Precision: If selected, the Rounding Factor field on the price list cannot be updated by the user. Instead the Rounding Factor value defaults from the profile QP: Unit Price Precision Type (either Standard/Extended precision) for the price list currency. The decimal places that display for the list price is determined by the Currency Precision.

Rounding Behavior

The profile option settings for QP: Price Rounding affect the rounding behavior as described below:

Formula Prices

For dynamic formulas, the calling application passes the rounding factor and the resulting rounding factor displays regardless of the profile setting.

Price List

- The Round To value is used to round and store the list price if the profile option QP:Price Rounding is set to Enforce Rounding Factor or Enforce Currency Precision.
- Currency Precision is used to display the list price if profile option QP:Price Rounding is set to Enforce Rounding Factor or Enforce Currency Precision.
- The Round To can not be modified if profile option QP:Price Rounding is set to Enforce Currency Precision.

Adjust Price List

The list price, after adjustment by amount or percent, will be rounded and stored using Rounding Factor if the profile option QP:Price Rounding is set to Enforce Rounding Factor or Enforce Currency Precision.

Add Items to Price List

The list price will be rounded and stored using Rounding Factor if the profile option QP:Price Rounding is set to Enforce Rounding Factor or Enforce Currency Precision and Set List Price Equal to Cost From is checked on the window.

Update Formula Prices

The list price will be rounded and stored using Round To if the profile option QP:Price Rounding is set to Enforce Rounding Factor or Enforce Currency Precision.

Agreement

The Round To is used to round and store the list price if the profile option QP:Price Rounding is set to Enforce Rounding Factor or Enforce Currency Precision.

- Currency Precision displays the list price if the profile option QP:Price Rounding is set to Enforce Rounding Factor or Enforce Currency Precision.
- The Round To cannot be modified if the profile option QP:Price Rounding is set to Enforce Currency Precision.

QP: Qualify Secondary Price Lists

Default value: No

This profile option enables secondary price lists to be checked for qualifiers when the primary price list is not validated. If the profile is set to Yes an item on a non-validated line will not be picked up from secondary price lists when the primary price list is not validated.

Values

- Yes: Secondary price lists will be checked for qualifiers when the primary price list is not validated.
- No: Secondary price lists will not be checked for qualifiers when the primary price list is not validated.

QP: Return Manual Discounts

Default Value: Yes

This profile option determines how the pricing engine should perform incompatibility processing for manual discounts.

Values

The possible values for this profile option include the following:

- Yes: All the manual discounts will be returned. All unapplied manual discounts are returned and all automatic discounts not considered are returned as manual discount.
- No: All unapplied manual and automatic discounts undergo incompatibility processing and one per incompatibility group is returned. In this process an automatic discount can get deleted and a manual discount can get selected.

The Pricing Engine does not consider applied manual modifiers during incompatibility processing. Discounts (automatic or manual) deleted as part of incompatibility processing will not be returned as manual discounts.

This profile option is visible and can be updated at the site, application, responsibility, and user levels.

QP: Satisfied Qualifiers Option

Default value: Yes

The profile option QP: Satisfied Qualifiers Option impacts performance when entering and booking an order. It controls whether satisfied qualifiers are returned to the calling application or not.

Values

Yes (Default): The pricing engine returns all the satisfied qualifiers to the calling application. This increases pricing engine processing time.

No: Processing time is reduced because the pricing engine does not return the satisfied qualifiers to the calling applications.

QP: Security Control

Default value: Off

This profile option controls the activation of pricing security for your entire installation. It can be set On or Off. Before turning this profile option on, ensure that you have completed all the set up and implementation steps. For more information, see: Pricing Security, *Oracle Order Management Suite Implementation Manual*.

Values

- Off: After initial upgrading to security, the QP: Security Control is set to Off which maintains the pre-upgrade functionality. This means that any user with functional access to the Pricing Manager responsibility has full access to maintain and update all pricing entities regardless of operating unit.
- On: The Security Control profile should not be turned on until all mapping has been completed. All functional users require access privileges to view or maintain their pricing entities.

When the profile QP: Security Control is turned on, each newly created price list and modifier form will be assigned a unique system-generated operating unit identifier.

QP: Security Default Maintain Privilege

Default value: Global

This profile option controls the default maintain privileges for NEWLY CREATED price lists and modifiers after security is turned on. For example, if the profile option is set to Operating Unit, then the maintain privileges for a newly-created price list or modifier are restricted to the operating unit where the price list or modifier was created.

Values

Global: Includes all users with access to pricing menus.

Operating Unit: Includes users within the named operating unit.

Responsibility: Includes users within the named responsibility.

User: Specifies a named user.

None: No-one can maintain the entity.

QP: Security Default ViewOnly Privilege

Default value: Global

This profile option determines the default view-only privileges for NEWLY CREATED price lists and modifiers after security is turned on. This controls which users (if any) have access to view specific price lists and modifiers.

View and maintain responsibilities are controlled separately by different profile options.

Values

Global: Includes all users with access to pricing menus.

Operating Unit: Includes users within the named operating unit.

Responsibility: Includes users within the named responsibility.

User: Specifies a named user.

None: No-one can view the entity.

QP: Selling Price Rounding Options

Default value: Individual: = round(listprice) + round(adj)

This rounding option rounds the selling price after adding unrounded list price and adjustments: selling price = round (list price + adjustments)

Note: The profile OM: Round Unit Selling Price has been migrated to QP: Selling Price Rounding Options.

Values

- NO: = unrounded listprice + unrounded adjustments: No rounding.
- Individual: = round(listprice) + round(adj): Rounds selling price and adjustments.
- Additive: =round(listprice + adj); unrounded Freight: Rounds selling price after adding unrounded list price and adjustments.

This profile option can be viewed and updated at the site level.

Freight Charge Rounding: If the QP: Selling Price Rounding Options profile is set to NO or ADDITIVE then freight charges will not be rounded. If the profile is set to INDIVIDUAL then freight charges will be rounded. The rounding flag in the control record passed by calling application may have one of the following values:

- Y (Yes): Rounds selling price and adjustments.
- N (No): No rounding.
- Q: Behavior depends on the profile setting for QP: Selling Price Rounding (NO, INDIVIDUAL, ADDITIVE). If rounding flag is passed as Q, but QP: Selling Price Rounding Options is NULL, the default behavior is to round selling price and adjustments.
- Null: Rounds selling price and adjustments.

Case 1)

Rounding Flag = Q

Profile QP: Selling Price Rounding Options = NO

List Price = 12.60, Rounding Factor = 0, Discount 25%

Adjustment amount = -3.15

Selling price = $12.60 - 3.15 = 9.45$

Case 2)

Rounding Flag = Q

Profile QP: Selling Price Rounding Options = INDIVIDUAL

List Price = 12.60, Rounding Factor = 0, Discount 25%.

Adjustment amount = $-\text{round}(\text{round}(12.60) * 0.25) = -3$

Selling price = $\text{round}(12.60) - 3 = 10$

Case 3)

Rounding Flag = Q

Profile QP: Selling Price Rounding Options = ADDITIVE

List Price = 12.60, Rounding Factor = 0, Discount 25%.

Adjustment amount = -3.15

Selling price = $-\text{round}(12.60 - 3.15) = 9$

Case 4)

Rounding Flag = N

List Price = 12.60, Rounding Factor = 0, Discount 25%.

Adjustment amount = -3.15

Selling price = $12.60 - 3.15 = 9.45$

Case 5)

Rounding Flag = Y

List Price = 12.60, Rounding Factor = 0, Discount 25%.

Adjustment amount = $-\text{round}(\text{round}(12.60) * 0.25) = -3$

Selling price = $\text{round}(12.60) - 3 = 10$

Case 6)

Rounding Flag = NULL

List Price = 12.60, Rounding Factor = 0, Discount 25%

Adjustment Amount = $-\text{round}(\text{round}(12.60) * 0.25) = -3$

Selling price = $\text{round}(12.60) - 3 = 10$

QP: Set Request Name

Default value: Blank

This profile option can be used in conjunction with the QP: Debug profile option to enable the Request Name field to be prefixed with the Order ID.

Values

Any valid values such as the Name or User ID of the user submitting the price request. The QP: Set Request Name profile option is visible and can be updated at the site, application, responsibility, and user levels.

QP: Unit Price Precision Type

Default Value: Standard

This profile option determines the Round To value that defaults in the price list. The Round To value is limited by the number of positions allowed in the standard or extended precision format of the price list currency.

Values

The possible values for this profile option are:

- Extended: Rounding Factor is defaulted to the currencies extended precision
- Standard: Rounding Factor is defaulted to the currencies standard precision

This profile option can be updated at the site and application levels.

QP: Valueset Lookup Filter

Default Value: Yes

Use this profile option to enable or disable a search criteria window for qualifier value lookups in qualifiers, price lists, and modifiers. Some qualifiers use large valusets, for example, those based on all customers, and searches may take a long time. If you want to reduce the number of items that display in the list of values, you can enter search criteria. If you do not enter search criteria and click the list of values indicator for the fields Value From or Value To, you see a window which advises that you have not entered search criteria and that the search may take a long time.

Values

The possible values for this profile option are:

- Yes: The message displays.
- No: The message does not display. Use this value if you do not expect to have large qualifier valuesets and do not need to enter search criteria to reduce the display.

This profile option is visible and can be updated at the site level.

QP: Verify GSA Violations

Default Value: No

This profile option indicates whether the pricing calculation engine should test for GSA violations. You can change the value to Yes if you require GSA pricing functionality.

The evaluation is performed if: 1) a request is for a non-GSA customer, and 2) GSA rules are violated if the selling price of an item is calculated to be less than the price of the item on any GSA price list.

Values

The possible values for this profile option are:

- Yes: Pricing engine tests for GSA violations, and any violating request lines are returned to the calling application with a status of GSA violation.
- No: Does not test for GSA violations.

This profile option can be updated at the site level.

Using Defaulting Rules in Basic Pricing

Topics covered in this chapter include the following:

- [Overview](#) on page 16-2

Overview

Some of the defaulting decisions established in Oracle Order Management (OM) can potentially change the final price fetched by the pricing engine. It is imperative to carefully select your defaulting values during order entry.

Pricing Date

Pricing date instructs the pricing engine to price the order using list prices and benefits that are valid on that day.

At the Order Line level, you can setup a defaulting rule to default the pricing date entered in the order header, ordered date or requested date etc. By controlling the defaulting value of the pricing date you control the LOV of price lists being queried in OM and the list price and benefits applied on to the order.

Agreement

By entering an agreement name on an order the customer is able to receive the prices negotiated in the agreement. Agreement is tied to a standard price list or an agreement price list. An agreement price list could be chosen in OM only if the agreement to which the price list is tied to has been entered in the Sales Order screen.

You can use agreements to default Sales person, Purchase Order Number, Payment terms, Freight terms, etc.

Price List

The price list on the order line is used to fetch the list price and apply benefits. If the item is not found in the price list, the secondary price list is searched. If the item is not listed on the secondary price list, or if there is no secondary price list, an error message is given.

If an agreement is mentioned on the order, then standard price lists and agreement pricelist attached to the agreement can be used. Price lists can be defaulted from customer, agreement, or order type.

Currency Code

The pricing engine searches for the price lists and benefits in the currency code mentioned on the order. Use defaulting to control the currency in which the order is going to be priced.

Freight and Special Charges

Topics covered in this chapter include the following:

- [Overview](#) on page 17-2
- [Process Flows](#) on page 17-3
- [Charges Setup](#) on page 17-5
- [Other Business Scenarios](#) on page 17-22
- [Troubleshooting](#) on page 17-31
- [Seeded Freight and Special Charge Types](#) on page 17-34

Overview

This section discusses freight and special charges in Order Management, and provides tips and examples on how to set up the charges to perform common charge scenarios. In particular, the setup of the automatic conversion of costs to charges is detailed.

Freight and Special Charges are defined as the amount applied to the customer invoice for movement of a shipment to a destination or for other miscellaneous reasons. Freight and Special Charges may be applied on the order as a whole, or can be assessed on specific order lines. Costs that are associated with shipment of goods can be captured during the shipping process and can be passed through to orders as charges, if desired. These charges can be viewed and modified from the Sales Order window by users with appropriate security.

Companies may choose to assess charges such as for freight or handling. These charges may vary within the same company based on customer, size of order, destination, weight, and other factors. While some companies pass actual shipping costs to their customers, other companies use shipping and handling charges as an opportunity to increase revenues.

In most cases, companies would like these policies to be implemented without manual intervention by an order taker or clerk. For example, in an eBusiness environment, where orders are entered in a self-service mode through iStore or other web interfaces, the user cannot be expected to input their own freight and special charges.

Applying charges and capturing freight costs is now divided between order management and shipping execution. Order Management applies Freight or other Charges to the customer invoice whereas Shipping captures all Freight Costs incurred on a shipment of goods

The charges can be applied to the order manually, via order import, through the Process Order open API or automatically based on the charges setup. At the time of order entry, some of the freight and special charges that will be applied on the order may be known. Other charges can be applied later in the order process, depending on user setup and business practices. The following seeded Freight and Special Charge types are included:

- Freight
- Handling
- Insurance
- Export fees

- Miscellaneous charges.

All freight and special charges are passed to Receivables to be invoiced.

Freight Costs are actual expenses incurred by the shipper while transporting a shipment. The Freight Cost Types that are seeded include: freight cost, handling, insurance, administrative fees and export duty. Shipping Execution allows users to input costs incurred on the shipment of goods using the Shipping Transaction window or through the Shipping Open Interface. Once the ship confirmation process completes, any costs input are transferred to Order Management for storing on the order, and they can be converted to charges based on rules the user specifies. Freight costs captured at shipping are not invoiced to the customer.

Freight Charges

Freight charges can be automatically derived from the freight cost. The freight charge represents the amount passed to the customer receiving the shipment. The freight charge can be equivalent to the freight cost or a greater amount, for example, freight cost plus a markup. Other ways commonly used to assess freight charges are based on predetermined fixed amount for each order or for each item or tiered amounts based on total order amount, ship method, priority, freight terms and other variables.

Therefore, pricing modifiers are used to define charges, and pricing qualifiers to define the rules for applying those charges. A pricing formula can be used to define the passing through of freight costs to charges.

The Freight and Special Charges features are available with Basic Pricing.

Process Flows

Here are several common business flows that help explain the freight and special charges process.

Typical Sales Order with Automatic Charges

The basic flow for applying Freight or Special Charges to an order starts in the Sales Order window. A user creates an order and enters the lines. When saving the lines, the freight and special charges are automatically applied to the order line based on the setup done by the customer. Once charges have been applied to the order header and line, the user can see the total charges in the total area of the main tab of the Order, and a total of charges for each line in the Charges column on the Sales Order Lines window, Pricing tab.

In addition a user can view, modify or add manual charges by selecting Action > Charges in the Sales Order window. The Charges window displays details about the Freight and Special Charges applied. If the charge has the Override Allowed box selected, then the user can change the charge.

Entering Costs and Converting Them to Charges

When you are ready to ship the order, you can enter any costs associated with the line or delivery. During ship confirmation (and specifically when the Order Management Interface processes), those costs are transferred to the order line as price adjustments. Then the conversion of the costs into charges will be triggered, provided the cost-to-charge conversion setup has been done. The converted charges will be applied to the line, and then those charges will get invoiced with the order line. Once the line is invoiced, the user will not be able to apply any new charges to the order line.

Sales Order with Manual Charges

The flow for adding charges manually is similar to the flow for automatic charges. The user enters the order header and lines. Automatic charges may be applied, depending on how the setup was done. The user can also manually apply any non-automatic charges if he or she has appropriate security. To do this, select the header or line that you want to apply charges to, click the Action button, and select Charges.

When the Charges window displays, select from the list of values in a blank line any manual charge that the order or line qualifies for. Security for manual charges is based on the profile option: OM: Charging Privilege. If the profile is set to None, the user will only have viewing access to charges and cannot apply manual charges. If set to Full Access, the user can apply manual charges and modify overrideable charges. If set to Unlimited Access, the user can apply manual charges and even modify non-overrideable charges.

Invoicing and Taxation

All charges are invoiced. Line level charges are invoiced with the line they are attached to. Header level charges are invoiced with the first line that is invoiced for that order. Header charges that are added after some lines have been invoiced will be invoiced with the next line that is interfaced to Invoicing. Charges are sent individually to Receivables as invoice header level freight charges, although Accounts Receivable summarizes them into one freight line for the Invoice.

Taxes on charges are not calculated at this time during order entry, even if charges are taxable in the jurisdiction. If it is necessary for charges to be taxed, the user

should set the TAX: Invoice Freight as Revenue profile option to Yes and also set up a dummy Freight item in Inventory that is taxable and specify it in the TAX: Inventory Item for Freight profile option. Then OM's Invoicing Integration will send the charges to Receivable's Autoinvoice as Lines with that Inventory Item on them, rather than as Freight. There the charges can be taxed as required and revenue accounting for the charges using AutoAccounting can be done.

Returns

There are a few considerations regarding charges for return lines:

- First, you can set up Freight and Special Charges that will be charged on return lines or orders; these are typically such things as restocking fees, return handling fees etc. These charges are set up just like any other charges, though you would most likely create rules (qualifiers) for applying these charges so that they apply only to return lines (line category = return).
- Secondly, you may or may not want to refund charges that the customer paid on the original order that is being returned. Users can define which charges are refundable by checking the Include on Returns box when the Charge Modifier is set up. If the return line is created referencing an existing order line, any refundable charges associated with the original line will be automatically applied as a negative charge on the return. If the user creates a new return line without a reference to any existing line, then the user will have to manually apply any refundable charges.

Backorders

There is a profile option that controls whether or not charges will be applied to backordered lines on an order. Some companies by policy do not charge freight or special charges on backorders, while other companies do. The profile OM: Charges for Backorders controls this function. Set it to YES if you want backordered lines to be assessed charges. The default is NO. This profile option can only be set at the site level.

Charges Setup

Freight and Special Charges in Order Management are set up as a modifier type in pricing as a Freight and Special Charge List modifier. You define the modifier and the list lines for each type of charge such as handling, freight, miscellaneous that are applied to the order or order lines.

You can select qualifiers for the modifier if you want certain qualifications to be met first before the modifiers are applied to the order or order lines. For example, does this particular customer get these freight charges? Does the order amount justify (qualify for) these freight terms? Or does the size of the order (amount or quantity) dictate standard freight cost conversion with markup?

Terminology

Freight Costs: Are costs incurred in the shipment of goods. Within Order Management and Shipping Execution, they are the costs entered at Ship Confirmation that reflect money your company pays for the movement of goods.

Freight Cost Types: You must classify the Freight Costs by Freight Cost Types: these are general descriptors used to categorize the types of costs incurred. The following are seeded Freight Cost Types: Duty, Handling, Insurance, Export, Freight, and Administration.

Freight Cost Types are lookups. Additional Freight Cost Types lookups can be created by navigating to: Shipping > Setup > Lookups. Use the Search icon and to query then view the existing lookups.

Freight Cost Names: Are associated with a Freight Cost Type and identify the Freight Costs you are going to use. For example, the freight cost type Export might include the following names: harbor maintenance fee, ad valorem tariffs, import quota tariff. These are the names that the shipping clerk will see in the Shipping Transaction window when Freight Costs are entered. You set up Freight Cost Names by navigating to Shipping > Setup > Freight > Define Freight Cost Types. Press Control+F11 to view existing freight cost names. On a blank line, enter a new Name, choose a Freight Cost Type, Currency and Amount. The Amount entered here will default in the Freight Costs window at ship confirmation when that particular Freight Cost Name is selected in the Cost Type field. At ship confirm, the user has the option of accepting this default Amount, or entering a different amount.

Freight and Special Charges: Define the charges to be applied to a customer for shipping goods or for other services. Associated with each Freight Charge Type are Freight Charge sub-types, which are also lookups with lookup type equal to the name of the Freight Charge Type. Charges are defined under the Miscellaneous lookup; this is where you should define any charges that you might want to assess that won't be converted from Shipping costs. These sub-types along with the Freight Cost Types (not Names) described show up as Charge Names when you define your Freight and Special Charge modifiers.

Freight Terms: Freight Terms is an attribute of the order header and line. They can be used as a qualifier for applying charges.

Defining Pricing Modifiers for Freight and Special Charges

You can set up modifiers that define how to apply charges to orders. A modifier defines what the charges are (their name, how they are calculated, what level they apply to) and how they are applied:

- Automatically, based on qualifiers
- Manually, by a user.

You can select from the following methods to calculate charges:

- Fixed LUMPSUM amount: A fixed charge amount such as a \$10.00 handling fee.
- Fixed AMOUNT per Pricing Quantity: A fixed amount charge per pricing quantity such as a \$1.00 charge for each item ordered.
- Fixed PERCENTAGE: A fixed percentage of the List Price of the item such as a 5% handling fee.
- FORMULA: A formula to calculate the charge such as Insurance Cost * Constant. The basic components of the formula can be a PRICING ATTRIBUTE and NUMERIC CONSTANT to return a numeric value. The user can attach the formula to the Freight Charge modifier.

If you set up charges to apply at the Order Header level, only Lumpsum or Formula types of calculations are allowed.

Business Scenario 1: Creating a simple freight charge and applying it to an order

Assume your company always wants to automatically assess a Freight Charge of \$39.99 to all orders, and also a Handling Charge of \$10.00. Certain users can change the amount of the charges at entry.

For this scenario, we will be using the lumpsum calculation method for the charges.

To create a simple freight charge and apply it to an order;

1. Navigate to the Pricing Modifier window
2. Select Freight and Special charges List as the Type.

3. Enter a Number and Name that you will be able to recognize. The Number does not have to be numeric.
4. Select the Automatic box to make the modifier be automatically applied to the order.
5. Select the Currency, Start and End Date range, and a Description for the modifier.

Note: Optionally, qualifiers could be added to the modifier to have charges applied only to orders or lines with certain attributes. However, for this scenario, no qualifiers are created so freight charges will always be applied.

Next, you can add one modifier line for Freight Charges and another one for the Handling Charges. You enter modifier lines in the Modifiers Summary tab in the lower half of the Modifiers window.

6. Enter a user-defined Modifier No for the first line.
7. Select Order or Line Level to indicate whether you want the modifier to be applied at the order or line level. For this example, select Order.
8. The Modifier Type of Freight/Special Charges is selected by default.
9. Optionally, enter a Start and End Date.
10. Select Automatic to apply the charges without user intervention.
11. Select the Override box to allow authorized users to change the amount of the charge once it's applied.
12. Select a Pricing Phase that controls when the charge will be applied.

Select Header Level Charges for Order Level modifiers and Line Charges for Line Level modifiers.

Advanced Pricing - Define Modifier

New Main Advanced

Type **Freight and Special charge Li** Number **Scenario1** ☒ Active
 Name **Scenario1** Version ☐ Automatic ☒
 Currency **USD** Start Date -
 Description **Scenario 1 for white paper** []

List Qualifiers

Modifiers Summary Discounts/Charges Promotion Upgrades Promotion Terms Coupons Price Breaks*

| Modifier No | Level | Modifier Type | Start Date | End Date | Print On Invoice | Automatic | Override | Pricing Phase |
|-------------|-------|---------------|------------|----------|-------------------------------------|-------------------------------------|-------------------------------------|---------------------|
| 26414 | Order | Freight/Spec | | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Header Level Charge |
| 26415 | Order | Freight/Spec | | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Header Level Charge |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

Exclude Pricing Attributes Line Qualifiers Define Details*

13. In the Discounts/Charges tab, enter the charge details.
14. Select Freight Costs from the Charge Name field.
15. Select Include on Returns to copy this charge to returns created from these orders.
16. Select Lumpsum as the Application Method and enter a value of \$39.99.
Similarly, enter another modifier line for the Handling Charge.
17. Enter a second line within the Modifiers Summary tab region with settings similar to those for the first line.
18. In the Discounts/Charges tab, select Handling Costs as the Charge Name.
19. Select (or clear) Include on Returns.
20. Select Lumpsum as Application Method again is Lumpsum and the Value is \$10.00.

Advanced Pricing - Define Modifier

Main

Advanced

Type

Freight and Special charge Li

Number

Scenario1

☒Active

Name

Scenario1

Version

☒Automatic

Currency

USD

Start Date

Description

Scenario 1 for white paper

[]

List Qualifiers

Modifiers Summary

Discounts/Charges

Promotion Upgrades

Promotion Terms

Coupons

Price Breaks*

| Modifier No | Level | Modifier Type | Charge Name | Include On Returns | Formula | Application Method | Value | Accrue |
|-------------|-------|---------------|----------------|-------------------------------------|---------|--------------------|-------|--------------------------|
| 26414 | Order | Freight/Spec | Freight Costs | <input checked="" type="checkbox"/> | | Lumpsum | 39.99 | <input type="checkbox"/> |
| 26415 | Order | Freight/Spec | Handling Costs | <input checked="" type="checkbox"/> | | Lumpsum | 10 | <input type="checkbox"/> |
| | | | | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| | | | | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| | | | | <input type="checkbox"/> | | | | <input type="checkbox"/> |

Exclude

Pricing Attributes

Line Qualifiers

Define Details*

Save your work. A basic Freight and Special Charge modifier with one line detailing Freight Charges and one line for Handling Charges has been created.

To apply a modifier without any qualifiers (as in this example), then you must also set the pricing profile option QP: Blind Discount Option to Yes.

Applying Automatic Order Level Charges on an Order

To see how this modifier is applied, create a new order within the Oracle Order Management.

1. Enter the order header information including:
- Customer

Order Type (for example, Standard)

Price List

Ship To & Bill To Addresses and Salesperson.
2. In the Lines tab, enter any Item with a quantity of 1 and save the order.

3. In the Order Main tab and can view in the Totals area the Charges of \$49.99 which is the sum of the \$39.99 Freight Charge plus the \$10.00 Handling Charge.
4. To see the applied charges, select the Actions button > Charges from the Header region. You will see the two applied freight charges with the
 - Charge Name = Freight Costs and amount = \$39.99.
 - Charge Name = Handling Costs and amount = \$10.00.

Charges (Vision Operations) - Order(52645)

| Charge Name | Type | Rate (%) | Amt / Unit | Charge | Fixed | Auto | Overridabl |
|----------------|---------|----------|------------|--------|--------------------------|-------------------------------------|-------------------------------------|
| Freight Costs | FREIGHT | | | 39.99 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Handling Costs | HANDLIN | | | 10.00 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Charge Total **49.99**

Attributes Apply Cancel

A user with appropriate security (based on the setting of the OM: Charging Privilege profile option) can override the amount of either charge by keying over it, entering a Reason and Comments, and click Apply.

Applying Manual Order Level Charges on an Order

Suppose your company doesn't want to automatically apply charges to every order and instead you want the order entry clerk to choose what orders to charge.

To do this, change the setup of the previous modifier by clearing the Automatic box at the modifier list header and lines. Then enter a new order and line and save it. You will see that now no charges have been applied automatically.

To apply manual order level charges on an order:

1. To apply the freight and handling charges manually, select the Actions button > Charges from the Order Header.
2. Click a new line in the Charges window.
3. Select the Charge Name = Freight Costs from the list of values. A charge named Freight Cost of \$39.99 will appear. Now, click another new line in the Charges window, select the Charge Name = Handling Cost from the list of values. A charge named Handling Cost of \$10.00 will appear.
4. If you cannot apply charges manually:
 - a. Confirm that the profile option, OM: Charging Privilege is set to Full Access or Unlimited Access.
 - b. Confirm that QP: Blind Discount Option is set to Yes (all modifiers with no qualifiers will be considered if Blind Discount is set to Yes).
 - c. To verify these profile settings, navigate to: Edit > Preferences > Profile and query those profiles.
5. To verify that the manual application of the freight and special charges has occurred, review the Total Charges on the Order Main tab or click the Actions button and select Charges.

A total of \$49.99 will be in the totals area, and the Freight Costs of \$39.99 and Handling Costs of \$10.00 will appear in the Charges window. Since these charges were applied manually, the Fixed box will be automatically selected on the Charges window, indicating that those charges should not be changed by the system.

Business Scenario 2: Setting up Automatic Order Level Charges using Qualifiers

Assume your company always wants to automatically assess a Freight Charge of \$39.99 to all orders with Freight Terms of Prepay & Add, and a Handling Charge of \$10.00 for those same orders.

For this scenario, you can add simple qualifiers to the modifier set up in the previous scenario. Select the Modifier window and query the modifier list that was set up in the last section. Now we will make two changes to the modifier lines. First we will mark them as Automatic again and then specify qualifiers for them.

When you set up qualifiers for modifiers, select the qualifiers at the Modifier list header level or at the list line level. The qualifiers selected at the list header level will apply to all modifier lines defined in that list. This can be useful to specify common business rules at the list header only once. Any Qualifiers specified at the list line level are specific to that particular modifier line. Use this if you need unique rules for applying one of the Charges but not all of them on a list.

For this scenario, we will set up header level qualifiers which will apply to both of our charges in this list.

To set up automatic order level charges using qualifiers:

1. Click the List Qualifiers button on the top part of the Define Modifier window.
A window displays any predefined qualifier groups you may have already set up. For this scenario, do not select any of these. Instead, click OK to display the Qualifier - Header Level Qualifier window.
2. In the Qualifier - Header Level Qualifier window, enter new qualifiers.
3. Enter Grouping Number = 1.
4. Select Qualifier Context = Order.
5. Select Qualifier Attribute = Order Category. Accept the default Precedence value.
6. Select Operator is = and Value From = Order.
7. Similarly, enter the second qualifier for Freight Terms.

Qualifier - Header Level Qualifiers

| Group | Grouping Number | Qualifier Context | Qualifier Attribute | Precedence | Operator | Value From | Value From |
|-------|-----------------|-------------------|---------------------|------------|----------|--------------|------------|
| | 1 | Order | Order Category | 480 | = | ORDER | Order |
| | 1 | Terms | Freight Terms | 640 | = | Prepay & Add | Seller pay |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Cancel

OK

Copy Group

Applying a Qualified Automatic Order Level Charge to an Order

Create a new order and select Freight Terms as Prepay and Add on the header. Choose the Lines Tab and enter a line or two and save your order. You should see the two charges applied automatically at the order header level just as we did in Scenario 1 before. Confirm that the charges are correct by looking at the Order Main tab, charges total and by choosing the Charges Action to see details of the charges.

You can verify that the qualifier is working by entering another order with a different Freight Terms, and seeing that the charges are not applied.

Business Scenario 3: Case Study

The company's freight policy is defined as follows:

- For each Regular delivered order, a charge of \$3.00 will be applied automatically for freight.
- An additional freight charge of \$0.50 per quantity for Regular deliveries.
- For Special deliveries there will be a charge of \$11.50 per order and an additional \$1.00 per quantity.

The differentiation between Regular and Special deliveries depend on the carrier or transport company. It will be modeled as Shipment Priority at the Order Header.

This can be implemented in different ways:

1. One simple way is to set up one Freight and Special Charges List with automatic application, with list lines qualified by Shipment Priority.
2. Set up a new Freight and Special Charges List with the Automatic box selected. Do not assign any List Qualifiers. Then enter four list lines: the first two qualified by Shipment Priority equal to Regular and the second two qualified by Shipment Priority equal to Special. For each pair of list lines, one will be at Order level and will be calculated as a Lumpsum and the other will be at Line level and will be an Amount per quantity. For all of these, the Charge Name would be Freight Costs.

The following graphic displays the Modifiers window - Discount/Charges tab for this set of modifier lines.

Advanced Pricing - Define Modifier

Main

Advanced

Type

Freight and Special charge L

Number

Scenario 3

☒Active

Name

Scenario 3

Version

☒Automatic

Currency

USD

Start Date

Description

Scenario 3 for White Paper

[]

List Qualifiers

Modifiers Summary

Discounts/Charges

Promotion Upgrades

Promotion Terms

Coupons

Price Breaks*

| Modifier No | Level | Modifier Type | Charge Name | Include On Returns | Formula | Application Method | Value |
|-------------|-------|---------------|---------------|-------------------------------------|---------|--------------------|-------|
| 26445 | Order | Freight/Spec | Freight Costs | <input checked="" type="checkbox"/> | | Lumpsum | 3 |
| 26446 | Line | Freight/Spec | Freight Costs | <input checked="" type="checkbox"/> | | Lumpsum | .5 |
| 26447 | Order | Freight/Spec | Freight Costs | <input checked="" type="checkbox"/> | | Lumpsum | 11.5 |
| 26448 | Line | Freight/Spec | Freight Costs | <input checked="" type="checkbox"/> | | Lumpsum | 1 |
| | | | | <input type="checkbox"/> | | | |

Exclude

Pricing Attributes

Line Qualifiers

Define Details*

The qualifiers would look like these; the second qualifier is to ensure that these charges are applied only on order lines and not on return lines.

Table 17–1 Line Level Qualifiers

| Grouping Number | Qualifier Context | Qualifier Attribute | Precedence | Operator | Value From |
|-----------------|-------------------|------------------------|------------------|----------|------------|
| 1 | Order | Shipment Priority Code | <accept default> | = | Regular |
| 1 | Order | Line Category | <accept default> | = | Order |

Applying Automatic Order and Line Level Freight Charges on an Order

Create a new order and select the Shipment Priority as Regular on the header. Choose the Line Items tab and enter several lines and save your order. You should see the header charge of \$3.00 applied and you should also see line charges of 0.50 per item for each line. Confirm that the charges are correct by looking at the charges total on the Order Main tab, and also by looking at the total charges for each line in the Lines tab, Pricing tab.

You can verify that the qualifier is working by entering another order with a Shipment Priority of Special and seeing that the higher charges are applied; \$11.50 at the header and \$1.00 for each unit of quantity on the lines.

This is how Charges can be applied or entered during order entry. The following section describes how to automatically convert Freight Costs entered at Ship Confirmation to Freight Charges.

Setting up Freight and Special Charges For COST to CHARGE Conversion

After you define any Freight Cost Names in Shipping Execution, any costs entered at Ship Confirmation are transferred to Order Management and are available for the cost to charge conversion process. You can convert the exact cost amount to the charge amount, or you can do it with a markup or markdown.

The cost to charge conversion described here applies line level charges only. Costs always come across to Order Management from Shipping as line level price adjustments. These costs can be converted into order level charges using a user-defined pricing attribute for Order Level Costs and a custom sourcing rule to sum up the line-level costs.

To make the conversion process work (even if you are doing a straight cost conversion with no markup), you must set up a Pricing Formula specifying the conversion algorithm, and then use that Formula when you set up the Charge Modifier. For example, suppose you want a markup of 30% to be applied to the cost to get the final charge (e.g. freight cost + 30%).

To set up freight and special charges for cost to charge conversion:

1. Navigate to the Formula Setup window.
2. Enter a Name that describes your formula, enter a Description, Effective Dates (optional), and the Formula equation.
3. Enter the equation $1*2$ which means to multiply step 1 by step 2.

- 4. In the Formula Lines region of the window, these steps are defined as Pricing Attribute Freight Costs multiplied by a Numeric Constant of 1.3.
- 5. So using this formula, the system will take the freight cost (step 1) assigned at ship confirmation and multiply by the numeric constant of 1.3 (130%) (step 2) which will equal the final freight charge:

Advanced Pricing - Pricing Formulas

Name

Cost plus 30%

Description

Freight cost plus 30%

Effective Dates

Formula

1*2

Formula Lines

| Formula Type | Pricing Attribute Context | Pricing Attribute | Component | Step | Reqd Flag |
|-------------------|---------------------------|-------------------|-----------|------|--------------------------|
| Pricing Attribute | Pricing Attribute | Freight Cost | | 1 | <input type="checkbox"/> |
| Numeric Constant | | | 1.3 | 2 | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |

Factors

Now you create a new Charge Modifier List that uses this formula.

- 6. Navigate to the Define Modifier window.
- 7. Enter the Type as Freight and Special Charges List.
- 8. Enter a Number and a Name.
- 9. Select the Automatic box.
- 10. Select the Currency, Start and End Dates and add a Description for the modifier.
- 11. Next enter modifier lines for the charge list.
- 12. Enter a Modifier Number.

13. Choose the Level = Line.
14. Select the Modifier Type as Freight and Special Charges.
15. Optionally, enter a Start and End Date. Check the Automatic box to apply the charges automatically. Then choose the Discounts/Charges Tab and enter the charge details.
16. In the Charge Name field, select Freight Costs, Application Method is Lumpsum and select the Formula you just created.

Now you can set up list level qualifiers which will apply to this modifier list. Click the List Qualifiers button on the list header and enter some qualifiers similar to the ones in this table:

Table 17-2 Header Level Qualifiers

| Grouping Number | Qualifier Context | Qualifier Attribute | Precedence | Operator | Value From |
|-----------------|-------------------|---------------------|------------------|----------|------------|
| 1 | Order | Line Category | <accept default> | = | Order |
| 1 | Order | Shipped Flag | <accept default> | = | Yes |
| 1 | Order | Shippable Flag | <accept default> | = | Yes |

These qualifiers will make sure that these charges will be applied to Order Lines only when shipping occurs. (Shipped Flag = Yes). You can add any other qualifiers that make sense to your business such as limiting these freight charges to certain customers or orders with particular Freight Terms.

Apart from these list level qualifiers, you will need to create a line level qualifier for each modifier line in your list. This qualifier will link the Freight Cost Type entered at Ship Confirm to this Charge.

17. Select the modifier line with Charge Name = Freight Cost.
18. Click the Line Qualifiers button then enter: Grouping Number = 1, Qualifier Context = Order, Qualifier Attribute = Freight Cost Type Code, Precedence = accept default, Value From = Freight.

Table 17–3 *Line Level Qualifier*

| Grouping Number | Qualifier Context | Qualifier Attribute | Precedence | Operator | Value From |
|-----------------|-------------------|------------------------|------------------|----------|------------|
| 1 | Order | Freight Cost Type Code | <accept default> | = | Freight |

With the Formula and this Modifier created, you can now convert Shipping Cost into a Freight Charge. To try this, you will need to create a new order that matches the qualifiers (such as Customer or Freight Terms) you set up for your Charges.

Assigning Actual Freight Costs at Ship Confirmation

Once you have booked and pick released the order (using autocreate deliveries to simplify the process), you then enter the actual Freight Costs in the Shipping Transaction window when you do ship confirmation.

To assign actual freight costs at ship confirmation:

1. Navigate to the Shipping Transactions window, and query the lines of your order.
2. In the Lines/Containers tab of the Shipping Transaction window, select the Actions button > Freight Costs and click Go.
3. Enter the Cost Type = Freight Costs, Currency Code = USD and type in an Amount such as \$15.00.
4. Ship confirm the delivery.

Ensure that you enter the Freight Costs before you Ship Confirm; if you do the ship confirm first, then it's too late to add the freight costs. The actual Charges will be calculated based on the formula and the Freight Costs you just entered. If you have deferred the OM Interface at Ship Confirm, then you may not see the charges until after that interface has run.
5. To confirm freight costs to freight charges conversion, navigate back to the Sales Order Pad and query up your order. You will see the Freight Charge = \$19.50 (15 + 30% of 15) on the Main tab.

Freight Costs Not included as Freight Charges

Inevitably, some freight costs are incurred after Ship Confirm which cannot be invoiced to the customer. For example, a truck shipment is delayed at the customer's dock during unloading and the carrier assesses the shipper a detention

charge. Since the cutoff point for passing through freight costs occurs at the time of Ship Confirm, there is no possibility of invoicing the customer for this extra charge except manually.

Other Business Scenarios

Several other common business scenarios are provided to assist you in better understanding the setups required to map freight costs to freight charges.

Business Scenario 4: Standard Handling Charge

In this scenario, a distributor of music CDs wants to assess a standard handling charge of \$1.99 per CD.

- 1. Navigate to the Define Modifier window and enter the following information:

Table 17–4 Define Modifier window: Heading

| Type | Number | Name | Automatic |
|-------------------|----------------|----------------|------------|
| Freight and Spec. | <user defined> | <user defined> | <selected> |

- 2. On the first line of the Modifiers Summary tab, enter:

Table 17–5 Define Modifier window: Modifiers Summary tab

| Level | Modifier Type | Automatic | Override | Phase |
|-------|---------------|------------|------------|--------------|
| Line | Freight/Spec | <selected> | <selected> | Line Charges |

- 3. Click the Discounts/Charges tab and enter:

Table 17–6 Define Modifier window: Discounts/Charges tab

| Charge Name | Application Method | Value |
|----------------|--------------------|-------|
| Handling Costs | Amount | 1.99 |

By using an application method of Amount, the pricing engine will assess a handling charge of \$1.99 for each item ordered. If instead we had used “Lumpsum” as the application method, the pricing engine would assess a handling charge of \$1.99 per line (or per order if we had used an Order level modifier).

- 4. Click the Line Qualifiers button and enter:

Table 17–7 Define Modifier window: Qualifiers -- Line Level

| Grouping Number | Qualifier Context | Qualifier Attribute | Precedence | Operator | Value From |
|-----------------|-------------------|---------------------|------------------|----------|------------|
| 1 | Order | Line Category | <accept default> | = | Order |

The setup for this modifier is completed. A handling charge of \$1.99 will be automatically applied to each item ordered. To verify that the Handling charge is functioning properly, navigate to the Sales Order Pad and enter a new order. Enter one line with a quantity of 10. Click the Action button and select Charges. The Charges window should show a Handling Charge of \$19.99.

Business Scenario 5: Freight cost markup applied to all invoices with freight terms of prepay & add

A shipper wishes to assess a Freight markup of \$50 per line for all shipments with freight terms of Prepay and Add. The markup will be assessed against the actual freight cost entered by the Shipping Department. Since the Freight costs will not be available until the order is shipped, the company wants customer to see an estimated Freight Charge of \$300 on each line of the order, which will be replaced with the actual charge after shipping. In addition, a standard Handling Charge of \$10 will be added to each line of the order. All charges will be applied at the line level.

In this example, you need to set up a formula and a modifier with qualifiers.

1. First, set up the pricing formula and name it “Freight XX”. Navigate to the Formulas Setup window, and enter:

Table 17–8 Pricing Formulas window: Heading

| Name | Description | Formula |
|------------|---------------|---------|
| Freight XX | Freight Costs | 1 + 2 |

2. In the Formula Lines region, enter:

Table 17–9 Pricing Formulas window: Lines

| Formula Type | Pricing Attribute Context | Pricing Attribute | Component | Step |
|-------------------|---------------------------|-------------------|-----------|------|
| Pricing Attribute | Pricing Attribute | Freight Cost | <blank> | 1 |
| Numeric Constant | <blank> | <blank> | 50 | 2 |

A pricing attribute can be anything used to price the item, from volume to item to freight cost. The purpose of setting up this formula is to apply a markup to the freight cost assigned at shipping. In this formula, the system will take the freight cost (step 1) assigned at ship confirmation and add \$50 (step 2) which equals the final freight charge.

Now, when the formula Freight XX is selected in any pricing modifier, the \$50 will be added to the Freight Cost at the line or header level, as defined in the modifier.

- Set up the pricing modifier for freight and special charges that should appear on the order. Navigate to the Define Modifier window, and enter:

Table 17–10 Define Modifier window: Heading

| Type | Number | Name | Automatic |
|-------------------|----------------|----------------|------------|
| Freight and Spec. | <user defined> | <user defined> | <selected> |

- Next, select the Modifier Summary tab. On the first line, we will use the Freight XX formula in the modifier. Enter this:

Table 17–11 Define Modifier window: Modifiers Summary tab

| Level | Modifier Type | Automatic | Override | Phase |
|-------|---------------|------------|----------|--------------|
| Line | Freight/Spec | <selected> | <clear> | Line Charges |

- Choose the Discounts/Charges tab, and enter:

Table 17–12 Define Modifier window: Discounts/Charges tab

| Charge Name | Formula | Application Method | Value |
|---------------|------------|--------------------|---------|
| Freight Costs | Freight XX | Lumpsum | <blank> |

6. Note that the formula used is the one you set up in the Pricing Formulas window. The Value column is null because the freight cost amount will be input by the Shipping Department at ship confirm.

Two more modifier lines must be created; one line for Freight Charges and one line for Handling Charges. These lines will set up standard default amounts for these charges in case Shipping neglects to enter actual freight costs.

7. In the Modifier Summary tab, enter the Freight charge line information like this:

Table 17–13 Define Modifier window: Modifiers Summary tab

| Level | Modifier Type | Automatic | Override | Phase |
|-------|---------------|------------|----------|--------------|
| Line | Freight/Spec | <selected> | <clear> | Line Charges |

8. In the Discount/Charges tab, enter the Freight Charge line information like this:

Table 17–14 Define Modifier window: Discounts/Charges tab

| Charge Name | Formula | Application Method | Value |
|---------------|---------|--------------------|-------|
| Freight Costs | <blank> | Lumpsum | 300 |

9. Repeat the same process for the Handling Charge.

10. Enter the following:

- Modifier No.: Null
- Level: Line
- Modifier Type: Freight and Special Charge
- Start Date: Null
- End Date: Null
- Automatic: Selected

- Override: Cleared

11. In the Discount/Charges tab, enter the following information:

- Charge Name: Freight Costs
- Formula: Null
- Application Method: Lumpsum
- Value: 10

This modifier line will modify the invoice to include an amount of \$10 as a Handling Charge per order. The standard Handling Charge will be assessed automatically; no manual input is required at order entry or ship confirm.

The completed Modifiers Summary window should appear like this:

Table 17–15 Define Modifier window: Modifiers Summary tab

| Level | Modifier Type | Automatic | Override | Phase |
|-------|-------------------|------------|------------|--------------|
| Line | Freight and Spec. | <selected> | <clear> | Line Charges |
| Line | Freight and Spec. | <selected> | <selected> | Line Charges |
| Line | Freight and Spec. | <selected> | <clear> | Line Charges |

The completed Discount/Charges window should appear like this:

Table 17–16 Define Modifier window: Discounts/Charges tab

| Charge Name | Formula | Application Method | Value |
|---------------|------------|--------------------|---------|
| Freight Costs | Freight XX | Lumpsum | <blank> |
| Freight Costs | <blank> | Lumpsum | 300 |
| Handling Cost | <blank> | Lumpsum | 10 |

Next, you need to set up list qualifiers and line qualifiers. In this example, the List Qualifier is used to apply the modifier to orders with Freight Terms of Prepay and Add. The Line Qualifiers allow the pricing engine to apply the modifier to the order lines according to the processing status such as shippable, shipped. Prior to ship confirm, the order status is shippable and the standard freight charge (\$300) will appear on the order entry Charges window. When the order status changes to shipped after ship confirm, the actual freight cost plus the \$50 markup will apply. The Line Qualifiers trigger this functionality.

To set up the list qualifiers:

1. Click the List Qualifier button on the Modifier Definition window. The Qualifiers Group window appears, click OK.
2. Enter the following:

Table 17–17 List Qualifiers: Header Level Qualifiers window

| Grouping Number | Qualifier Context | Qualifier Attribute | Precedence | Operator | Value From |
|-----------------|-------------------|---------------------|------------------|------------------|----------------|
| 1 | Terms | Freight Terms | <accept default> | <accept default> | Prepay and Add |

The order must pass this list level qualifier before it will review the line level qualifiers. Line qualifiers add more detailed requirements for the order to qualify for the Freight Charge.

To set up the line qualifiers:

1. To set up the Line Qualifiers for this example, select the first modifier line and click the Line Qualifier button. The Qualifiers Group window appears, click OK. The Qualifier - Line Level Qualifiers window will appear.
2. Enter this information as qualifies for the 'cost to charge conversion modifier line:

Table 17–18 Line Level Qualifiers: Line 1

| Grouping Number | Qualifier Context | Qualifier Attribute | Precedence | Operator | Value From |
|-----------------|-------------------|------------------------|------------------|----------|------------|
| 1 | Order | Shippable Flag | <accept default> | = | Yes |
| 1 | Order | Line Category | <accept default> | = | Order |
| 1 | Order | Shipped Flag | <accept default> | = | Yes |
| 1 | Order | Freight Cost Type Code | <accept default> | = | Freight |

For Line 1, a grouping number is used because there are more than one line qualifiers that have to pass before the freight charge can be applied to the order. The table for Line 1 is read as follows: the Shippable Flag on the line must be Yes, AND,

the Line Category on the line must be Order, AND, the Shipped Flag on the line must be Yes, AND, the Freight Cost Type Code on the Order must be Freight. All of these qualifiers must be true to apply the qualifier to the line.

- 3. To set up the Line Qualifier for the \$300 estimated charge, select the second modifier line and click the Line Qualifier button. The Qualifiers Group window appears, click OK. The Qualifier - Line Level Qualifiers window will appear.
- 4. Enter the following to create the qualifiers to apply to lines with Line Category of Order and for Shippable lines that have not been shipped:

Table 17–19 Line Level Qualifiers: Line 2

| Grouping Number | Qualifier Context | Qualifier Attribute | Precedence | Operator | Value From |
|-----------------|-------------------|---------------------|------------------|----------|------------|
| 1 | Order | Line Category | <accept default> | = | Order |
| 1 | Order | Shipped Flag | <accept default> | = | No |
| 1 | Order | Shippable | <accept default> | = | Yes |

- 5. To set up the Line Qualifier for the Handling Charge, select the third modifier line and click the Line Qualifier button. The Qualifiers Group window appears, click OK. The Qualifier - Line Level Qualifiers window should appear.
- 6. Enter this information to apply the Handling Charge to outbound lines (Line Category = Order) that are shippable:

Table 17–20 Line Level Qualifiers: Line 3

| Grouping Number | Qualifier Context | Qualifier Attribute | Precedence | Operator | Value From |
|-----------------|-------------------|---------------------|------------------|----------|------------|
| 1 | Order | Line Category | <accept default> | = | Order |
| 1 | Order | Shippable | <accept default> | = | Yes |

The setup for formulas and modifiers in this example is complete.

- 7. To confirm that the setup for these Freight and Handling charges is correct, navigate to the Sales Order Pad and enter a new order.

8. Click the Others tab to confirm that the Freight Terms are Prepay and Add; this is so the list qualifier will be satisfied.
9. Click the Lines tab and enter a line.
10. Click the Action button and select Charges.

The charges should show the estimated freight charge of \$300 and the handling charge of \$10. These amounts are the default values set up in the modifier. When the actual freight costs are input by the Shipping Department at ship confirm, then the freight charge will change.

11. Book your order.
12. Navigate to the Shipping Transactions window and enter actual freight costs, then ship confirm the order.
13. Navigate to: Shipping > Transactions and find your order.
14. Click the Actions box and select Launch Pick Release and click Go.

Also, make sure to autocreate a delivery either at picking or before ship confirming the order. Once a delivery is created, click the Delivery tab. If your order line does not appear, use the Query Manager (flashlight icon) to find your order. When the order line appears, click the Actions box again and select Freight Costs and click Go.

Here is where you enter the actual freight costs for the shipment. Set Cost Type = Freight and enter an Amount = 200 and click Done.

Note: If you enter any other cost types here, they will not appear as a freight charge because you did not set up any other charges in the modifier for cost conversion. A charge was set up for Handling but it is not set for cost conversion.

15. Now, click the Actions box again and select Ship Confirm and click Go.
16. Return to the Sales Order Pad and find your order. Notice that the Charges Line total is now \$260. This amount is Freight = \$250 (actual freight charge + \$50 markup from the pricing formula), Handling = \$10.

In this example, the estimated Freight Charge of \$300 went away after shipping, since the Shipped Flag = No qualifier on that modifier line is no longer satisfied. This means that if the Shipping Department neglects to input a Freight Cost, the

estimated charge would still disappear, because of this qualifier. If instead you wanted the \$300 charge to stay on the order even if the Freight Cost was not entered, then you should remove that second line of the qualifier for the estimated charge. Then, if the Freight Cost was not entered, the \$300 charge would remain. If however a Freight Cost was entered, the resulting charge from the formula would replace the \$300 charge if that charge was larger than \$300.

Troubleshooting

The following section provides troubleshooting information and suggestions when implementing charges and particularly the cost to charge conversion.

Fixed vs. Estimated Charges

A common business case is to set up the charges to apply estimated charges automatically at order entry with the expectation that they will be replaced with actual charges when the order is ship confirmed. To do this, you might set up a Charge Modifier that applies an automatic charge at entry, qualified by the line being shippable but in status entered. Later, when the cost to charge conversion occurs at ship confirm time, the converted actual charge will overwrite the estimated charge.

This can be controlled by using the Fixed box on the Sales Order window - Charges window. If you don't want an applied charge to be overwritten by the system, at cost to charge conversion or by any subsequent pricing calls, select the Fixed box on the Charges window. The Fixed box is selected automatically for charges that are manually applied or any automatic charges that are manually overridden.

Note: The Fixed box should not be confused with the Overrideable box, a view-only box which controls whether a user can manually change the amount of the charge.

Name Confusion

The naming convention you use is critical for using cost to charge conversion. You enter costs in the Shipping Transaction window using the Freight Cost Names defined in Shipping Execution, each of which belongs to a particular Freight Cost Type. It is the Freight Cost Type that you need to use as the qualifier for the Charge Modifier line, however, not the Name.

In Order Management, you never really see the Freight Cost Names except at Ship Confirm. To keep things simple, you might want to just have one Freight Cost Name for each Freight Cost Type, and have it be the same name.

Also, if you define additional Freight Cost Types (the lookups) (with their Freight Cost Names and amounts) thinking you can then convert them into charges, this can be done. But you have to tell Pricing that the new Freight Cost Type is to be used as a Pricing Attribute (so you can put it in a formula); otherwise you won't see it in the pricing attributes LOV in the formula, and so you won't be able to use it.

Multiple Automatic Charges

If you have multiple automatic Freight and Special Charge lists set up, then ONLY ONE charge for each Charge Type and Sub-Type combination will be used by Order Management. Which one will it be?

Which charge gets applied depends on INCOMPATIBILITY GROUP, PRECEDENCE and PHASE on the modifier. If the INCOMPATIBILITY GROUP is null (not specified) on the modifier, then the largest freight charge for each distinct/unique combination of charge type/sub-type will get applied to the order/line. If the INCOMPATIBILITY GROUP is not null, then within a particular PHASE and a particular INCOMPATIBILITY GROUP, the freight charge with the highest PRECEDENCE will be selected by the Pricing Engine if the INCOMPATIBILITY RESOLVE CODE is set to Precedence for the phase. If there is more than one freight charge eligible within a particular INCOMPATIBILITY GROUP in a particular PHASE and the PRECEDENCE is the same or if the INCOMPATIBILITY RESOLVE CODE is set to Best Price for the phase, then the smallest charge will get selected. Amongst these selected freight charges, Order Management applies the largest freight charge for each unique combination of charge type/sub-type to the order and line.

If you are using Basic Pricing, then you can only use an INCOMPATIBILITY RESOLVE CODE of Best Price. If you have licensed Advanced Pricing, then you can choose to use an INCOMPATIBILITY RESOLVE CODE of Precedence.

Pro-Rating the Costs

If you enter Costs in ship confirm at the Delivery Level, the costs that transfer back to the lines in Order Management are pro-rated to all the lines of the delivery, based on weight (if present) or volume (if present) or quantity shipped on each line. See the *Shipping Execution User's Guide* for how to get weight and/or volume on delivery details.

Cost to Charge Conversion Not Working

Did you enter the cost? If you don't enter Costs in ship confirm, then the cost to charge conversion will not occur. If you enter a cost of zero, then the conversion will take place based on the formula you set up. So if you want the charge to be Cost plus \$50 and you enter a zero cost, then the charge generated will be \$50. But if you don't enter a cost at all, then no charge will be put on the order.

Included items? Is the line you're trying to get the charges onto an included item in a PTO kit or model? If so, you won't be able to get the charges to convert easily. The reason for this is that the costs come to Order Management from Shipping as line level price adjustments, and the SHIP pricing event triggers the Freight and Special

Charges modifier to be applied; since included items are not priced, this doesn't happen. Your only recourse to getting a cost-to-charge conversion working on an included item is to use an order level modifier.

Check the Phase: The phase which you selected when you set up the cost-to-charge conversion modifier line has to be one that is executed during the SHIP pricing event. For Basic Pricing, use the Line Charges phase. If you choose some other phase, then the phase that you use for the modifier line should be one that has the SHIP event associated with it.

You can check this by querying up the phase in the Event Phases window. (Navigation Path is Setup -> Event Phases under Pricing Manager responsibility.) Also make sure that the phase has freeze override flag checked. Please check the Advanced Pricing User's Guide to learn more about how to use this window.

Did the OM Interface run? If you defer running the interfaces (checkbox on Ship Confirm), the OM Interface may not have run yet. Be sure it has completed.

Did the cost to charge still not work? Finally, you can run a debug utility. This utility will help you or Support see whether the cost got to Order Management and if so, why it didn't get converted to a charge properly. It will spool the debug output to a file, where you can view the results.

To use this debug utility, you will need to know the `line_id` (order line id) of the order line for which the freight charge (cost to charge conversion) is not coming through. You can determine the order line by using the menu option: Help > Diagnostics > Examine, after querying up the order line. You also need to know the `list_line_id` (modifier line id) of the modifier that you set up to do the cost to charge conversion. You can figure this out by using the menu option: Help > Diagnostics > Examine, after querying up the freight charge modifier, navigating to the lines region and selecting the modifier line that you want to examine.

This debug utility will do the following things:

- Check if cost was inserted by Shipping.
- Check that the phase `freeze_override` flag is not N.
- Check that the `qp_list_header_phases` table is populated.
- Check if sourcing (attribute mapping) happened. If it did not, you need to run the Build Sourcing Rules concurrent request.
- Check if line is an included item of a model; if it is, the charge will not be created.

- Check if Charge_Type_Code matches the Cost Type Code being selected at Ship Confirm. It will also print out all other costs that have been passed to OM.
- Check if this line has been Inventory Interfaced and OM Interfaced.

Seeded Freight and Special Charge Types

The following lists the available seed freight and special charge types that you can set up for a modifier.

| Lookup Code | Lookup Type | Description |
|----------------|----------------------|---|
| ADMINISTRATION | FREIGHT_COST_TYPE | Administrative Charges |
| DUTY | FREIGHT_COST_TYPE | Charges applied for duties |
| EXPORT | FREIGHT_COST_TYPE | Charges applied for Export/Import of goods. |
| FREIGHT | FREIGHT_COST_TYPE | Freight movement charges |
| HANDLING | FREIGHT_COST_TYPE | Charges applied for Handling and packaging of goods |
| INSURANCE | FREIGHT_COST_TYPE | Charges applied for Insured Shipment |
| MISCELLANEOUS | FREIGHT_CHARGES_TYPE | Any miscellaneous Charges |

Topics covered in this chapter include the following:

- [Overview](#) on page 18-3
- [Introduction](#) on page 18-3
- [Key Features](#) on page 18-3
- [Terminology](#) on page 18-4
- [Calculating Available to Promise \(ATP\)](#) on page 18-6
- [Scheduling](#) on page 18-7
 - [Scheduling by Ship or Arrival Date](#) on page 18-8
 - [Alternative Ways to Schedule](#) on page 18-8
 - [Scheduling Concurrent Program](#) on page 18-9
 - [Scheduling Across Orders](#) on page 18-10
 - [Scheduling Groups of Lines](#) on page 18-11
 - [Changing Scheduled Lines](#) on page 18-13
 - [Override ATP](#) on page 18-15
- [Reserving](#) on page 18-15
 - [Manual Reservations](#) on page 18-16
 - [Reservations Time Fence](#) on page 18-16
 - [Reservation Details Window](#) on page 18-16
- [Unreserving and Uncheduling](#) on page 18-17
- [Setup](#) on page 18-18

-
- [Implementation Considerations](#) on page 18-23
 - [Examples](#) on page 18-25

Overview

The scheduling feature of Oracle Order Management (OM) enables you to determine when items will be available to promise to a customer, schedule the shipment or arrival of order lines based on this availability, and reserve on-hand inventory to sales order lines. These scheduling activities can be performed on individual order lines or groups of order lines such as ship sets, arrival sets, and configurations.

Introduction

Oracle Order Management works closely with Oracle Advanced Planning and Scheduling (APS) and Oracle Inventory to provide scheduling functionality. The features are provided in a variety of ways enabling you to tailor your processes to meet your business needs.

The features that are provided under the umbrella term of scheduling are:

- Calculating Available-to-Promise (ATP)
- Scheduling
- Reserving

Unscheduler and unreserving functionality is also provided. This chapter covers how scheduling works in Order Management and how to set up OM, APS and Inventory to achieve your scheduling goals.

In Oracle Order Management if a line requires more than one set of schedule details, such as schedule date or warehouse, the line is split into multiple lines. An order line represents demand and is visible to the planning applications when the `VISIBLE_DEMAND_FLAG` is set to yes. This flag is set when the line is scheduled.

Key Features

Scheduling in Order Management includes the ability to:

- Schedule at multiple points - either manually or automatically as the line is entered, when the order is booked, or later using a background process
- Determine the best warehouse for an order line using sourcing rules
- Define by customer whether the request date is the requested ship date or requested arrival date

- Automatically set the scheduled ship and arrival dates based on the calculated ATP date
- Define a shipping network and determine the number of days required for delivery based on the transit time
- Automatically reserve on-hand inventory to order lines
- Control, based on order transaction type, the level of scheduling which should occur
- View availability for multiple warehouses at one time
- Group lines into arrival sets which may be shipped from different warehouses on different days but should arrive at the customer site on the same day
- Reserve scheduled lines from multiple orders using the Reserve Orders concurrent program.
- Override Available to Promise (ATP). This feature allows authorized users to override ATP schedule date from the sales order window as needed for exceptions.
- Perform scheduling actions on multiple lines across orders.

Terminology

Understanding the following terms will help you understand how scheduling works in Oracle Order Management.

- **Actual Arrival Date:** The date the order line arrives at the customer site.
- **Actual Ship Date:** The date the order line is shipped. This date is recorded by the ship confirm action.
- **Arrival Set:** A set of order lines which arrive at the same time at the destination.
- **Available to Promise (ATP):** The quantity of current on-hand stock, outstanding receipts and planned production not already committed to sales orders or other sources of demand.
- **ATP Date:** The date that a requested quantity will be available to promise.
- **Delivery Lead Time:** Time, in days, for items to reach the customer once they are shipped.

- Demand: Requests which consume inventory such as sales orders. Discrete manufacturing work orders and flow manufacturing schedules place demand for component items, and sales orders place demand for finished goods.
- Line Set: A set of lines which can be grouped into a Ship Set or Arrival Set.
- Override ATP: An action that allows authorized users to schedule the line even if there is no supply. Overriding ATP requires users to find supply manually.
- Promise Date: The date on which you agree you can ship the products to your customer or that your customer will receive the products. This field is for tracking purposes only. It may be defaulted from the schedule ship date or the schedule arrival date.
- Request Date: The date the customer requests that the products be either shipped or received.
- Reservation: A guaranteed allotment of product to a specific sales order. Once reserved, the product cannot be allocated to any other source of demand. Also known as a hard reservation.
- Reservation Time Fence: Time, in days, before the schedule date, within which a line should be automatically reserved.
- Reserve Orders: A concurrent program that attempts to reserve all those order lines specified in the search criteria in a batch process.
- Schedule Arrival Date: The date returned by the system on which your customer can receive the products.
- Schedule Ship Date: The date returned by the system on which you can ship the products.
- Scheduling Across Orders: The ability to perform scheduling actions on lines from multiple orders. With Scheduling Across Orders, users can schedule, unschedule, reserve, unreserve and perform ATP checks on lines across orders.
- Ship Set: A set of lines which will be shipped together from the same warehouse to the same location.
- Sourcing: Selecting the warehouse for the order lines.
- Supply: Incoming inventory. Some Oracle transactions that generate supply are purchase orders, discrete manufacturing work orders and flow manufacturing schedules.

Calculating Available to Promise (ATP)

Oracle Order Management enables you to advise your customers when items will be available based on current on-hand inventory plus the expected incoming supply and outgoing demand. Calculating ATP requires as input the item, the order quantity, the order quantity unit of measure and the request date. In general the user will enter the item and order quantity on every order line. The request date and order quantity unit of measure may be defaulted or manually entered. ATP may be calculated for a single line, a group of lines, or a complete order. The results for a single line are displayed in a single column in a small window. The results for multi-line ATP are displayed in a table. In both formats, the following information is displayed:

- Warehouse: Either the warehouse on the order line or, if the warehouse on the order line was blank, the best warehouse as selected by the sourcing rules.
- Request Date Qty: The quantity that is available on the requested date
- Available: The order quantity, if ATP was successful. The available quantity, which will be less than the order quantity, if ATP was not successful.
- On-hand Qty: The quantity that is currently in the warehouse.
- Qty Reservable: The on-hand quantity minus the quantity that is already reserved to other sources of demand.
- Request Date: The date on the order line.
- Available date: The date that the ordered quantity will be available. It could be the request date if the order quantity is available on the request date, or it might be a future date when the order quantity will be available
- Error Message: Any error that occurred in calculating ATP. For example, if the Check ATP flag for the item is not selected then this field will display ATP not applicable.
- Substitute Item: If the requested item is not available and the requested quantity for a defined substitute is available, the substitute item will be displayed. An additional tab, showing the availability of the substitute item, is also displayed.

At the bottom of the Availability window there is a Global Availability button. Pressing this button opens the supply chain ATP window that has the list of warehouses where the item is enabled. You can select the warehouses for which you want to see the availability, and the system will return the availability in all the selected warehouses.

The ATP Details window can also be opened from the Availability window by pressing the ATP Details Button. The ATP Details window displays how the results were derived.

ATP is calculated automatically during scheduling, and may be calculated manually by clicking Availability on the Line Items tab of the Sales Order window.

There are several setup steps required for ATP calculations to work. ATP rules must be defined to determine the sources of supply and demand which are included in the calculation. The ATP rules must be associated with items and/or inventory organizations. Also, the data collection program must be run. There is a requirement for ATP calculations to be very fast; some customer service representatives will need to give this information to customers on the phone. However, considering all the possible sources of supply and demand for an ATP calculation can be very complex. Therefore, a concurrent process known as data collection must be run to summarize the supply and demand picture. This program is part of the Oracle Advanced Planning and Scheduling application. The ATP calculation is then performed on the summary tables. For details about setting up ATP rules and running the data collection program, see the setup section of this document.

Scheduling

Scheduling is an action performed on an order line or a group of lines. The action performs the following:

- Determines the source (warehouse) for the order line. If the warehouse is entered on the line, either manually or using defaulting rules, the scheduling action uses the requested warehouse and the other scheduling results are based on it. If the warehouse is blank, the scheduling action determines the best warehouse based on the sourcing rules.
- Determines the schedule ship date, the schedule arrival date, the delivery lead time and the shipping method.
- Makes the line visible to the planning applications and consumes supply for the item. When a line is successfully scheduled the `VISIBLE_DEMAND_FLAG` is set to Yes.
- If the reservation time fence is set and the schedule ship date is within the reservation time fence, automatically reserves the line.

Scheduling by Ship or Arrival Date

The request date may be either the requested ship date or the requested arrival date depending on the request date type of the customer. If the customer's request dates are requested arrival dates, the scheduling action calls MRP's scheduling API with the requested arrival date. The API returns the first date on or after the requested arrival date that the items could arrive at the customer location, and enters that date into the scheduled arrival date field for the line(s). The schedule ship date is calculated by subtracting the delivery lead time (number of days for items to reach the customer once they ship) from the schedule arrival date. If the shipping network has not been defined for this combination of locations, the delivery lead time will be considered zero days and the schedule ship date and schedule arrival date will be the same.

If you enter a schedule ship date on the order line before performing the schedule action, the system will attempt to schedule on that date when the schedule action occurs. If it cannot, the schedule action fails.

You can define for each customer the delivery window in days that they will accept by entering the latest schedule limit on the customer window. When you enter an order line, the latest acceptable date is calculated by adding the latest schedule limit to the request date. When the scheduling action occurs, the schedule date will only be returned if it is between the requested date and the latest acceptable date. If it is not within this range, the scheduling action fails. For example, suppose that you have a customer who only accepts orders that ship within 5 days of the request date. You would enter 5 in the latest schedule limit fields on the Order Management tab of the customer window. When you enter an order line, if the request date is September 10, the latest acceptable date would be September 15. When the scheduling action occurs, if the schedule date returned is not in the date range of September 10 through September 15, the schedule request fails.

You can control whether OM schedules lines on hold by using the profile option OM: Schedule lines on Hold. If an order or line is on hold and this profile option is No, then the scheduling action fails.

Alternative Ways to Schedule

The scheduling action can be invoked in multiple ways. You can schedule from the sales order window by having autoschedule turned on, or by manually choosing to schedule using the context menu or the tools menu. You can schedule using a workflow activity either immediately or in deferred mode. If the scheduling action fails in the workflow then the line is moved to scheduling eligible activity. You can then use the scheduling concurrent program to schedule the lines with exceptions.

Autoschedule The sales order line is scheduled when it is saved. A line can be saved manually or will automatically be saved when you leave the line. If either the Autoschedule check box on the order transaction type is checked or the OM: Autoschedule profile option is Yes, the sales order will be opened in Autoschedule mode. You can turn Autoschedule on or off from the sales order window by going to the Tools menu. Note that if autoschedule is turned on the availability window is automatically displayed when the sales order window is opened. You can close the availability window, but the lines will still be autoscheduled unless the autoschedule check box on the tools menu is unchecked.

Manual You can access the scheduling sub menu either by selecting schedule from the list of activities on the tools menu or by placing your cursor on a line and pressing the right mouse button. Selecting schedule from these menus will trigger the scheduling action. If the action is selected from the order header tab, all the lines on the order will be scheduled. If the action is selected from the lines tab, it applies only to the line or group of lines selected.

Workflow The seeded scheduling workflow activity should be used in the workflow process for your order lines. In the Line Flow - Generic seeded flow, the schedule activity is a synchronous activity immediately after booking. With this type of process, scheduling will occur immediately after booking. Scheduling errors will be seen by the person who is booking the order. If the scheduling activity is deferred it will occur after the workflow background process runs and any error messages will be available in the process messages window.

See

Using Oracle Workflow in Oracle Order Management

Scheduling Concurrent Program In addition, there is a Scheduling Concurrent Program. This program selects all lines that have failed workflow scheduling, and attempts to schedule them. These lines are waiting at the schedule-eligible activity. The user can select orders based on the order number and other parameters.

For each line of the order that fails workflow scheduling, messages will be stored in the Process Messages table and also printed in the logfile.

- If scheduling was successful, the scheduling workflow activity will complete with a result of COMPLETE so that the line can progress to the next activity.
- If scheduling was not successful, the workflow activity will complete with the result of INCOMPLETE. The line can then be scheduled manually by progressing the order from the sales order window (press the Action button and

select Progress Order) or automatically in the next run of the scheduling concurrent program.

Submit the scheduling concurrent program by navigating to N:Orders>Returns > Schedule Order.

See

Oracle Order Management User's Guide

Scheduling Across Orders Scheduling Across Orders provides the ability to view scheduling attributes of multiple lines across orders, and to perform any scheduling action from a single window. From the Scheduling tab on the Find window of the Order Organizer, you can query lines based on a variety of parameters, such as:

- Item
- Warehouse
- Request Date
- Reservation Status (Reserved or Unreserved)
- Scheduling Status (Scheduled or Unscheduled)
- Shipping Status (Picked, Unpicked, or Backordered)
- Order Status
- Customer
- Shipment Priority
- Schedule Date ranges
- Request Date ranges

After performing an intelligent query to display a group of lines, you will see a new window, Scheduling Organizer. From the Scheduling Organizer, you can perform scheduling actions on lines across orders, that is, you can Schedule, Unschedule, Reserve, Unreserve and perform ATP inquiry.

Access to the scheduling Tab is controlled by the Profile Option OM: Scheduling Role. Those with the role of CSR Only do not have access to the Scheduling tab, but they have the same functionality available in previous releases of 11i. Those with the role of Scheduler Only are allowed access to the Scheduling tab, but not to other tabs (Order Information, Line Information, Advanced, and Holds Information). Those with the role of both CSR and Scheduler have access to all tabs in the Find window of the Order Organizer. Additionally, the role determines whether some

actions are available. For instance, those with the role of Scheduler only will not be allowed to open the Sales Order window from the Scheduling Organizer.

Scheduling Across Orders is useful in a variety of business scenarios:

- Availability and/or scarce inventory: Who has the reserved items? Which customers have scheduled lines? Which customers have unscheduled lines? If desired, take supply away from lower priority customers, and give it to higher priority customers.
- Customer service: View all the lines for a customer. Which lines need to be scheduled or reserved?
- Scheduling: Query all lines that are scheduled to ship on a specific date, and push out the schedule date for those lines as required. Or query any lines where Override ATP is flagged, and decide how to provide supply.
- Revenue impact: Query up all lines for an item, and display gross margin. Using Folders, move gross margin to be one of the first three columns on the Scheduling Organizer. Then sort based on gross margin. Reserve the lines with the higher gross margins, and pick by prior reservation. By doing so, you can impact bottom line for a month, quarter, and so on.

Scheduling Groups of Lines For scheduling functions other than Override ATP, Order Management may perform the function on only one line or on that line and a group of related lines. Scheduling treats the following groups as scheduling sets. For these line groups, the scheduling activity occurs on all the lines of a set.

- Assemble to Order (ATO) Models
- Ship Model Complete (SMC) Pick to Order (PTO) Models
- Line Sets
 - Ship Sets
 - Arrival Sets

Scheduling processes the lines of the set together and applies the rules required to honor the set. If lines are in a ship set they will be scheduled from the same warehouse and will have the same ship date and ship to. They may not have the same Ship Method. For instance, in a PTO model or a ship set you might ship a fragile part using one Ship Method, and a heavy part using another Ship Method.

User created ship sets, ATO models and SMC PTO models are all ship sets. All lines in a user created arrival set will have the same arrival date and ship to organization.

The following table shows the behavior for each scheduling function with each type of line group.

Table 18–1 Scheduling Groups of Lines

| Line Group Type | Calculate ATP | Schedule | Reserve |
|---|---|---|---|
| Standard Line (not in any set) | That Line | That line | That line |
| Standard Line (in ship or arrival set) | Whole Set | Whole set | That line |
| ATO Model | Whole configuration | Whole configuration | Cannot reserve |
| ATO Class | Whole configuration | Whole configuration | Cannot reserve |
| ATO Option | Whole configuration | whole configuration | Cannot reserve |
| PTO Model (Ship Model Complete) | Whole configuration | Whole configuration | Whole configuration, but each line is reserved separately |
| PTO Class (Ship Model Complete) | Whole configuration | Whole configuration | Class and its included items |
| PTO Options (Ship Model Complete) | Whole configuration | Whole configuration | Only the option |
| PTO Model (non-Ship Model Complete) | Whole configuration, but ATP will be performed separately for each line | Whole configuration, but each line will be scheduled separately | Whole configuration, but each line is reserved separately |
| PTO Class (non-Ship Model Complete) | Class and its included items | Class and its included items | Class and its included items |
| PTO Options (non-Ship Model Complete) | Only the option | Only the option | Only the option |
| Included Item (Ship Model Complete) | Whole configuration | Whole configuration | That line |
| Included Item (non-Ship Model Complete) | That line | That line | That line |
| Service Line | Cannot calculate ATP | Cannot schedule | Cannot reserve |

For scheduling actions other than Override ATP, you can manually request scheduling for more than one line at a time by multi-selecting the lines. (Override ATP is intended for exceptions only.) From the sales order window, select each line by pressing the Ctrl key and clicking the mouse. The selected lines will be highlighted. The scheduling activity that you request will be executed for the lines

that you selected, plus any lines that are required to be scheduled with them because they are in the same group. The lines that are multi-selected that are not in a scheduling group will be processed independently.

Line Sets: Ship/Arrival Line Sets are used to group lines. Ship Set and Arrival Sets are based on similar dates: Ship Set (Schedule Ship Date) and Arrival Set (Schedule Arrival Date). Line Sets can be enforced at the time of Pick Release or at Ship Confirm. The enforcement ensures that all lines assigned to the same Line Set will not progress until each line in the set is ready.

A Ship Set is a group of order lines which must ship from the same warehouse on the same day with the same ship to location. Pick Release will not pick anything in the ship set unless everything in the ship set is ready to go; that is, there is inventory available, no holds exist and it is eligible for pick release. The order entry window will ensure that the common attributes are the same across all lines in the set.

An Arrival set will be a set of order line shipments which must arrive at the customer site at the same time regardless of how it is shipped or from where it is shipped. The scheduling functions will honor arrival sets and the ATP calculation will operate on a whole arrival set together as a group, taking delivery lead times into consideration to meet the scheduled arrival date. Arrival sets can ship from different warehouses and ship on different days, but the ship to org and the scheduled arrival date must be the same on each line in the arrival set.

Lines in sets will be enforced to have some common attributes. Ship Sets need to have a common Schedule Ship date, Ship From and Ship to while Arrival Sets need to have a common Schedule Arrival Date and Ship To. A Line can either belong to a Ship Set or an Arrival Set at one time.

See Setup>Customer Window for header level defaulting behavior of Line Sets.

Changing Scheduled Lines Order Management has many features to help manage scheduled lines when the lines are changed. When a scheduled line is changed, the system reschedules the line. For example, if you change the ordered quantity or the warehouse, the system reschedules based on this new information.

When a new line is inserted into a scheduling group (such as a ship set or a configuration) that is scheduled the system will first try to schedule the new line with the same attributes as the other lines in the scheduling group. If that fails, then it checks the value of the profile option Auto Push Group Date. If the value is No, the line is inserted but not scheduled. If the value is Yes, the system tries to reschedule the whole set. If rescheduling the whole set fails, the line is inserted but not scheduled. Exception: If the line is part of an ATO configuration or a ship model

complete PTO configuration, and scheduling the group of lines together fails, then the line will not be inserted.

When you cancel a line that has been scheduled or reserved, the system unschedules the lines and removes the reservations. If a scheduled line is partially canceled, the system cancels scheduling information in this order:

1. Cancel the quantity which is scheduled but not reserved.
2. If the quantity requested for cancellation includes lines with reservations, the system cancels the reservations one at a time until the reserved quantity does not exceed the remaining uncanceled quantity. Reservations are canceled in this order:
 - Reservations that are not detailed are canceled first, that is, organization or warehouse level reservations.
 - Reservations that are detailed are canceled next, that is, subinventory or lot level reservations.

If a scheduled line is split then both of the new lines are scheduled. If the line is partially reserved, Order Management determines which of the new lines get the reserved quantity, based on whether the split is initiated by a user or the system.

- **User splits:** The customer may request shipment on more than one date so the user splits the line. If a original line is partially reserved, the first new line gets as much of the reserved quantity as it needs, then the second line, etc. For example, suppose that a line has order quantity of ten and reserved quantity of three. If the line is split into two lines with order quantities of six and four, the first new line will have a reservation for three and the second new line will not have any reservation. If an order line has order quantity of ten and reserved quantity of seven, and the line is split into two lines with ordered quantities of six and four, then the first line will have a reserved quantity of six and the second line will have a reserved quantity of one.
- **System splits:** Lines are split by the system when a partial quantity is ship confirmed. In this case the shipped line will have a reserved quantity of zero—it doesn't need reservations any more—so any remaining reserved quantity belongs to the unshipped line(s).

Override ATP

Override ATP enables you to schedule an item that is available to promise even if there is no supply. It is designed for exceptions. For example, you can take supply from one customer and give it to a higher-priority customer. You can make use of supply that is not recognized by the system. Once Override ATP is set for a line, that line remains overridden until the override flag is removed or the line is unscheduled.

You may want to allow only a single planner, scheduler, or sales order administrator to use this feature. Overriding ATP creates the responsibility of manually finding supply. Authorization to override ATP is secured through the use of a profile options, OM: Authorized to Override ATP.

To override ATP you must:

1. Provide a schedule date
2. Check the Override ATP box
3. Save any changes.

Override ATP honors days, but ignores time stamps in the date fields. Once a line is overridden, unauthorized users cannot undo the override, unschedule a line, or change scheduling-related attributes such as warehouse or the ship_to location. If the line is at a point in the flow where allowed by processing constraints, unauthorized users can cancel or reduce quantity, or delete the line. Unauthorized users can also split the line, if scheduling attributes are not changed.

If you uncheck the Override ATP box, the system tries to reschedule the line. If there is supply, the line will schedule. If the supply is insufficient, the line can be left unscheduled, or you can override ATP. Override ATP does not apply to service items or to drop ship or return lines.

For ATO models, the override flag cascades to other items within the model. For PTO models, it cascades only to included items.

Reserving

In Oracle Order Management, you can reserve on-hand inventory to a sales order. Reserved inventory cannot be used for any other purpose. The reserved quantity for a sales order line is displayed on the shipping tab. You may reserve part or all of the ordered quantity.

A line must be scheduled before it can be reserved. If you try to reserve an unscheduled line, the system will first try to schedule the line. If the line is successfully scheduled then the system will try to reserve it.

Manual Reservations

There are two ways to reserve from the sales order window.

- Select reserve from the scheduling option under the tools menu
- Select reserve from the scheduling sub menu which is displayed when you select the context menu.

If you are on an order line the line will be reserved. If you are on the header, all the lines will be reserved.

Reservations Time Fence

Reservations are performed automatically whenever a line is scheduled and the schedule date is within the reservation time fence. For example, suppose the today's date is November 25th. An order line is scheduled for December 1st, which is 6 days away. If the reservation time fence is 10, the line will be reserved because $6 < 10$. If the reservation time fence is 2, the line will not be reserved because $6 > 2$. If the reservation time fence is NULL, then lines will not be automatically reserved. The reservation time fence is set using the profile option OM: Reservation Time Fence.

Reservation Details Window

When you create reservations manually on the sales order window or automatically using the reservation time fence, the items are reserved at the warehouse level with no inventory details specified. You can specify inventory details for a reservation by using inventory's reservation details window. To access the window from the sales order window, go to the tools menu and select scheduling. From the list of options select Reservation Details, where you can reserve by lot, revision, subinventory and/or locator. You can only access the reservation details window for lines that are scheduled.

Reserve Orders Concurrent Program

The Reserve Orders concurrent program is able to reserve any line that is scheduled, assuming full quantity for the line exists. A number of parameters are provided that enable you to select orders and lines to reserve by order number

range, customer name, order type, item, request date, ship date, arrival date, order date, demand class, and within the reservation time fence.

You can run the Reserve Orders program against a filtered group of orders. In addition, there are Sort parameters, so that existing supply can be sequenced on the basis of:

- Date Ordered
- Request Date
- Scheduled Ship Date
- Arrival Date
- Promise Date
- Line Planning priority
- Customer

You can use this feature in a variety of business scenarios. Perhaps you are using the reservation time fence, but there is no supply at the time the line schedules. Once there is additional supply, you can run Reserve Orders to update reservations on lines that are within the reservation time fence. Or perhaps you have a Customer who is complaining about not receiving items as requested. You can query all lines for a particular customer, or for lines within a specific schedule date range, and place reservations on those lines.

Unreserving and Uncheduling

You can unreserve lines that have been partially or completely reserved. The inventory which was allocated to the line becomes available for other orders, but the line will still be scheduled so it will be visible as demand to the manufacturing applications. The system automatically unreserves a line if it is deleted or canceled.

When you unschedule a line the system will both unreserve and unschedule it. Uncheduling the line sets the `VISIBLE_DEMAND_FLAG` to No so that the line is no longer visible as demand to the manufacturing applications.

You can unreserve or unschedule by choosing these options from the scheduling submenu of the tools menu or by choosing scheduling from the context menu.

Setup

To set up scheduling to meet the needs of your business, note that several fields on the Order Management tab of the customer definition window affect the way scheduling works:

Request Date Type Possible values are arrival and ship. If the value is arrival then the request date and promise date will be considered arrival dates by the system; if the value is ship then they will be considered ship dates. The request date type can be defaulted from the customer information to the order, and the user can change it on the order if required.

Latest Schedule Limit This field can contain any numeric positive integer value. When you enter an order line, the latest acceptable date will be calculated by adding the latest schedule limit to the request date. When the scheduling action occurs, the schedule date will only be returned if it is between the requested date and the latest acceptable date. If it is not within this range, the scheduling action fails.

Profiles

The following profile options affect scheduling functionality:

OM: Schedule Lines on Hold Possible values are yes and no. If this field is set to yes, the scheduling action processes order lines even if the order or line is on hold. If set to no, the scheduling action will fail if the line is on hold.

OM: Autoschedule Possible values are yes or no. If set to yes, the availability window is displayed when the sales order window is opened and scheduling occurs automatically as each order line is saved. This profile applies only to standard items. It applies to lines entered through Order Import.

OM: Reservation Time Fence This may be any positive integer numeric value. When a line is scheduled it is also automatically reserved whenever the schedule date is within the reservation time fence.

OM: Auto Push Group Date Possible values are yes and no. If the value is yes and a line is added to a scheduled configuration, and the new line cannot be scheduled on the date that the rest of the configuration is scheduled, then the system will try to reschedule the complete configuration at a different time. If the value is no and the new line cannot be scheduled, then scheduling for the new line will fail and the rest of the configuration will not be affected.

OM: Authorized to Override ATP Possible values are yes or no. If the value is Yes, the the authorized user will be able to check the override ATP flag, and override the Schedule ship date or Arrival date. If the value is No, the user will not be able to override the schedule ship date or arrival date.

OM: Scheduling Role This pertains to Scheduling Across Orders. Possible values are CSR only, CSR and Scheduler, and Scheduler only. This can be set at either the Responsibility or User level. This profile option determines which tabs can be accessed on the Find window of the Order Organizer. If set to CSR only, there is access to the tabs pertaining to the sales order, but no access to the Scheduling tab. If set to CSR and Scheduler, there is access to all tabs, including the tabs for CSRs and the one for schedulers. If set to Scheduler only, there is access to only the Scheduling tab.

MRP: ATP Assignment Set This can be any valid assignment set which is defined in the MRP application. It specifies the assignment set that will be used for calculating ATP. Assignment sets are mentioned later in this section.

INV: Capable to Promise Possible values are Enable Product Family ATP and CTP; Enable Product Family ATP; Enable ATP; ATP/CTP based on Planning Output; ATP based on Collected Data. This profile option indicates whether and how to calculate ATP. You can choose one of two options.

If you license ASCP and want to use planning output, choose ATP/CTP based on Planning Output.

If you are not licensing ASCP but want to calculate ATP, choose ATP based on Collected Data.

Folders

You may want to expose the Override ATP flag on the Shipping tab. You may also want to use Folders to tailor the Scheduling tab on the Find window of the Order Organizer, or the Scheduling Organizer window.

Scheduling Levels on Transaction Types

The scheduling level on the order transaction type determines what type of scheduling is allowed. The possible values for this are:

ATP Only You will not be able to schedule or reserve lines on the order. If you have an order transaction type defined with a scheduling level of ATP Only then you

must not have the scheduling activity in any of the line level workflow processes. This could be used for Bill-Only or Bill-Only with Inventory Interface flows, or possibly for quoting scenarios.

For example, you could use the ATP Only flow for Bill Only lines that you want to omit from a header level set. If you do not want the Bill Only lines to be scheduled and considered part of the header-level set, you could make the scheduling level of the line transaction type be ATP Only.

No Reservations You can perform all scheduling functions except for reserving inventory. You will be able to use ATPable items, and schedule all items, but you will not be able to create reservations from the sales order window.

Allow All Scheduling Actions All scheduling actions can be performed.

Inactive Demand with Reservations You can manually enter any schedule date, but the system does not schedule. The line can be reserved. The schedule date is not visible to MRP / APS. This functionality is only for standard items, and it does not support ship or arrival sets.

Inactive Demand without Reservations You can manually enter any schedule date, but the system does not schedule. No reservation can be placed on the line. The schedule date is not visible to MRP/APS. This functionality is only for standard items, and it does not support ship or arrival sets.

If you don't want your order lines to be visible as demand to the manufacturing applications, do not schedule the lines. Alternatively, you can control this by setting the scheduling level of the order transaction type.

Customer Window

Several fields on the Order Management tab of the customer window affect the way scheduling works.

Scheduling by Ship or Arrival Date To determine whether to schedule by Ship or Arrival date, set the Request Date Type flag on the customer window to Ship or Arrival. If the value is arrival, the request date will be considered as the arrival date by the system. If the value is ship, then the request date will be considered the ship date. The request date type can be defaulted from the customer information to the order, and the user can change it on the order if required.

Latest Acceptable Date To set a Latest Acceptable Date (LAD) for a particular customer on the order line, enter a value on the customer window for Latest Schedule Limit. This field can contain any numeric positive integer value. This value can be defaulted to the header field, Latest Schedule Limit. When you enter an order line, the latest acceptable date is calculated by adding the latest schedule limit to the request date. When the scheduling action occurs, the schedule date will only be returned if it is between the requested date and the latest acceptable date. If it is not within this range, the scheduling action fails. You can manually override the LAD, but the system will not schedule lines that exceed the LAD.

Line Set To set a default ship set or arrival set based on the customer, select either Ship Set or Arrival Set from the Lines In field. If desired, you can also set the value at the Ship To Address (Site) level. You can default this value to the order. If this value is set on the order, then all lines of the order will be placed into a system-defined set if scheduling is successful.

ATP and Sourcing Rules

ATP Rules are created in the Inventory module. They indicate which sources of supply and demand to consider when calculating ATP. They can be assigned to inventory organizations and items. If an ATP rule is assigned to an item that is used. If the ATP rule for the item is blank, then the ATP rule for the inventory organization is used.

You must define sourcing rules if you want ATP to determine the warehouse for your order lines. Once sourcing rules are defined, they must be assigned to particular items, categories and/or inventory organizations. You do this using assignment sets.

For scheduling to work in Oracle Order Management you must successfully run the data collection concurrent request set. As previously stated, calculating ATP must happen almost instantaneously, but searching through all the possible sources of supply and demand to calculate ATP is very complex. Therefore, a concurrent process known as data collection must be run to summarize the supply and demand picture. The ATP calculation is then performed on the summary tables. To run the data collection request set, choose Scheduling -> Collect Data from the Oracle Order Management navigation menu. There are two programs in the request set. Enter parameters for both and submit the set. The Planning Data Pull program has a parameter named Complete Refresh. If this is set to yes, then the collection will select all scheduling related information from the relevant tables. If it is set to no, then only the updated information will be selected.

The basic steps for setting up ATP are summarized below:

- In Inventory, create the ATP rule, and attach the rule to item(s).
- In ASCP, define sourcing rules, such as Item X can be transferred from M1 to M2.
- Set the MRP: ATP Assignment Set profile option to point to an assignment set that includes your sourcing rules. Include the ATPable items in the Assignment Set.
- Run Collections from either Order Management or ASCP. (If you have never run Collections before, you will need first to define an Instance with assigned orgs. For details, please refer to Oracle Global Order Promising Implementation and User's Guide.
- Set the INV: Capable to Promise profile option to the correct level. If you have licensed ASCP, choose ATP/CTP based on Planning Output. If you are using a shared version of ASCP, select ATP based on Collected Data. To use ATP / CTP based on Planning Output, plans must be run.

See

Oracle Global Order Promising Implementation and User's Guide

Oracle Inventory User's Guide

Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User Guide

Choosing Not to Use ATP

You can turn off some or all of the scheduling functionality of Order Management. If you want lines to be visible as demand to the manufacturing applications but do not want to perform an ATP check on them then you can set the Check ATP flag of the item to No. You would do this for items where you assume that the item is always available. When the scheduling action is called for a non-ATP item, the system will still perform the sourcing action to determine the warehouse if one is not specified. It will not check ATP but will copy the request date into the schedule date field. The line will become visible to the manufacturing applications as demand on the requested/schedule date.

If you don't want your order lines to be visible as demand to the manufacturing applications, do not schedule the lines. You can control this by setting the scheduling level of the order / line transaction types. The possible values for this setting are ATP only, No Reservations, Allow all Scheduling Actions, Inactive Demand with Reservations, and Inactive Demand without Reservations.

Inter Location Transit Times

If you want to calculate arrival dates based on the time required for shipment from a warehouse to a customer location through a specified ship method, you must define your inter-location transit times.

See

Oracle Global Order Promising Implementation and User's Guide

Oracle Shipping Execution User's Guide

Late Demand Penalty

The penalty factor for late demand is used to calculate the penalty cost calculated by Planning Optimization. You can update the field, but no defaulting logic is provided. For details on how Planning Optimization uses this value, please refer to the *Oracle Advanced Planning Implementation and User's Guide*.

Implementation Considerations

Time Stamp

The schedule dates returned by MRP have only the day, and not the time. Therefore, automatic scheduling in OM can only be at the day level. The Order Management date fields have time capability, so you can enter the time on request dates, promise dates, and the like, but the scheduling function will ignore them: the time stamp returned by ATP is 23:59:59. Availability check provides a quick, rough-cut estimate, so it view availability by days, not hours.

ATP with or without ASCP

You can use ATP with or without planning. To use ATP with planning, you must license ASCP.

ATP Without Planning

If you have not licensed APS, you can still perform basic ATP. ATP without planning allows you to see what is currently available, but the system cannot use planning to determine if it's possible to build the product by the Request Date. ATP without planning is single-level. IT can see available for an ATO item that is assembled, or an if a WIP job or PO is expected by a certain date. But it

cannot calculate whether there are components and resources to build it by a certain date. ATP without planning uses ODS.

ATP With Planning

If you have licensed APS, you can not only see what is currently available, but also determine if there are resources to source the product by the Request Date. This type of ATP is multi-level, so it can drill down to the component level and look at available materials and resources to determine an available date. ATP with planning uses PDS.

Past Dates

If scheduling is called with a request date that is before today's date then ATP will be calculated using today's date and not the request date. If for some reason (for example a non-ATP item) a schedule date is returned for a past date, the system will not automatically reserve the item even if it is within the reservation time fence.

Reservations Details Window

There are some limitations to using the reservation details window. You cannot:

- Multi-select lines and go to the reservation details window.
- Go to the reservation details window from the orders block.
- Use this window to reserve more than the ordered quantity.
- Use this window to modify reservations for a configured item created for an ATO configuration.

Order Management does not guarantee the reservations from the Reservation Details window because the details passed to Inventory may not be valid for the Inventory hierarchy.

Reserve Orders

Reserve Orders does not reserve partial quantities on the line. Assume the following lines are queried to be reserved, and 100 are available.

Line 1 Qty 35, reserved

Line 2 Qty 35, reserved

Line 3 Qty 35, unreserved (only 30 of 35 are available)

Line 4 Qty 20, reserved

Line 5 Qty 10, reserved

Notice that if full quantity is not available for the line, there is no reservation.

When you run Reserve Orders, there is no guarantee that all lines will be reserved. Another user running Reserve Orders, or reserving manually, may reserve the supply before you do.

Override ATP

Supply is not available. Once the line is overridden, you must take the responsible for finding supply manually.

Migration/Upgrade

In OE Release 11 and before, scheduling information for a line was stored in the table SO_LINE_DETAILS. In R11i, this table no longer exists and the scheduling information for a line is stored in the main line information table, OE_ORDER_LINES. During the migration from OE to OM, a record is created in OE_ORDER_LINES for each combination of SO_LINES_ALL and SO_LINE_DETAILS. If the status in SO_LINE_DETAILS was DEMANDED, the new line will be scheduled (VISIBLE_DEMAND_FLAG = Yes.) If the status in SO_LINE_DETAILS was RESERVED, the new line will be scheduled and a record will be created in the MTL_RESERVATIONS table for the reservation.

Examples

The following examples illustrate some scheduling features.

Schedule by Ship Date with the Reservation Time Fence, without ATP

The warehouse for the order is defaulted from the ship to site. A shipping network is defined for this warehouse/ship to combination with the shipping method of UPS ground, and the transportation lead time is five days. The customer requests the shipment as soon as possible, so the request date is entered as today's date. On-hand inventory is available to fulfill the order. Autoschedule is on, and the reservation time fence is five days.

You enter an order line with the item, quantity and request date. When the line is saved, because autoschedule is on, it is automatically scheduled for the requested

warehouse with a schedule ship date of today. Because the schedule ship date is within the reservation time fence the line is also automatically reserved.

Schedule by Arrival Date, without ATP

One of the following is set up and used to defined to inter-location transit time from the warehouse:

- A customer Location set up in inventory.
- Region and Zones functionality introduced by APS

The shipping network is setup in inventory, specifying a Default method to be picked up by Order Management. On the Others tab of the Sales Order header, Order Date Type is Arrival. A warehouse for the customer defaults to the header and line. There is no ship method on the line.

The customer wants to receive the item on Day five. The Request Date is Day five. The item is available. The shipping lead time is three days. When scheduling by arrival date, the line schedules when it is saved. The default ship method defined in the shipping network defaults to the line. The user saves the line, and the item schedules to ship on Day five, arriving on Day five as requested by the customer.

See

Oracle Global Order Promising Implementation and User's Guide

Using ATP without Planning (ASCP), Schedule by Ship Date

No warehouse is defaulted or entered for the order. No shipping network is defined for the customer. The customer requests the shipment as soon as possible, so the request date is entered as today's date. There is no supply to fulfill the order, but there is a work order scheduled for completion in ten days, and the ATP rule includes work orders as source of supply. Autoschedule is off. The line level workflow process has the scheduling activity immediately after booking as a synchronous activity.

You enter an order line with the item, quantity, and request date. When the line is saved, it does not schedule because AutoScheduling is off. You enter additional lines and book the order. When the order is booked, the workflow scheduling activity executes. The warehouse is determined by sourcing rules. The schedule ship date is sysdate + 10 days, which is the day the work order is scheduled to complete. The schedule arrival date is the same as the schedule ship date.

Scheduling Across Orders

Some order lines were scheduled to ship on today's date plus 1 because a purchase order was expected on that day. You now know that 100 pieces will arrive on today's Day, not Day 1.

Within Scheduling Across Orders, query lines for the delayed item with a scheduled ship date of Day 1. Multi-select lines that you want to reschedule, then change the Schedule Date to today's date to a more accurate date, Day 3.

Reserve Orders

A high priority customer is complaining about not getting full ordered quantity of a particular item. Using Reserve Orders, query all order lines for that item and customer. Run Reserve Orders, to place reservations on those lines.

If desired, query the lines for that item and that customer in Scheduling Across Orders. View the reservations. You can also pick release using the Pick by Prior Reservation flag on the Release Orders window. By doing so, you have picked and shipped all lines reserved for a particular item for a high-priority customer.

Override ATP

A very important customer requires a large quantity of a scarce-inventory item to ship as soon as possible. There is no availability, so the line will not schedule.

You know of supply has been scheduled for a lower priority customer and override ATP for the high priority customer, giving that customer a Schedule Date. You then review all scheduled lines for the scarce item in Scheduling Across Orders, selecting a lower-priority customer who can wait for supply. The line for the low priority customer is unscheduled and unreserved, if necessary. The line for the higher priority customer can progress and ship.

Topics covered in this chapter include the following:

- [Overview](#) on page 19-2
- [Introduction](#) on page 19-2
- [Implementation Considerations](#) on page 19-4
- [Example](#) on page 19-4

Overview

The definition of the word fulfill is to bring into actuality; to carry out; to measure up or satisfy; to bring to an end or complete. To fulfill an order line in Oracle Order Management (OM) means to satisfy the requirements for completion. OM provides the functionality required to recognize fulfillment of an order line, and to cause some order lines to wait until other related order lines have been fulfilled before they continue processing.

Introduction

Oracle Order Management enables you to group lines into a fulfillment set and to establish a gate activity in your workflow process. Lines in a fulfillment set will wait until all lines in the set have been fulfilled to proceed through the gate. This gate is known as the fulfillment activity. The fulfillment feature is primarily designed to allow the grouping of related lines and to keep any lines in the group from being invoiced until all lines have been fulfilled.

Terminology

The following terms will be used to describe fulfillment:

- **Fulfillment activity:** The synchronization point or gate in the workflow process at which lines wait for other lines to be fulfilled.
- **Fulfillment method activity:** The activity in the workflow process which indicates that the line has been fulfilled.
- **Fulfillment set:** A group of lines which must all be fulfilled before any of the lines proceed beyond the fulfillment activity in the workflow

How it Works

The fulfillment activity is a seeded workflow activity named FULFILL_LINE. This activity is the synchronization point between the lines of a fulfillment set.

There are two activities that are considered fulfillment method activities in the seeded OM workflows. For a standard shippable line the fulfillment method activity is the shipping activity. For a return line the fulfillment method activity is the receiving activity. You may define any activity as the fulfillment method activity in a workflow process. The fulfillment activity must be between the fulfillment method activity and the invoice interface activity in the respective workflows.

When a line workflow reaches the fulfillment activity, the activity checks to see if the fulfillment method activity (for example, shipping or receiving) completed successfully. If so, it updates the fulfilled quantity on the line with the shipped or received quantity, and sets the fulfilled flag to Yes. It then checks to see if the line is part of a fulfillment set. If not, then it completes the fulfillment activity and continues with the next activity in the workflow process. If the line is part of a fulfillment set, it checks to see if the other lines in the fulfillment set are fulfilled. If any lines are not fulfilled, it waits at the fulfillment activity. If all the lines are fulfilled it completes the fulfillment activity for all the lines in the fulfillment set.

Service lines behave differently in Fulfillment Sets depending on the business scenario. The most common business scenario is to order a product with an associated Service line on the same order. In this situation, it is not necessary to assign a Fulfillment Set to the Service line as the Fulfillment activity takes care of fulfilling the product and Service line as a Fulfillment Set, implicitly. There are business scenarios where Fulfillment Sets can be assigned to Service lines. One scenario is in the case of ordering a Customer Product with an associated Service line. A second is when placing an order for a Service line associated to a product which is not in the same order.

Setup

No setup is required to use the fulfillment functionality with the seeded workflows. If you create your own workflows, include the fulfillment activity before invoicing in each process. This will provide two benefits: it will update the fulfilled quantity for the lines, and it will allow you to use fulfillment sets. For each workflow process that you define, you will need to check the attributes of the FULFILL_LINE activity. The FULFILLMENT_ACTIVITY attribute must be your fulfillment method activity, which in the seeded flows is either the shipping activity or the receiving activity. The COMPLETION_RESULT should be the result with which the fulfillment method activity completes if it is successful. This allows you to designate any activity as a fulfillment method activity.

If you have a workflow process with two separate branches, such as a single workflow process with separate branches for ordered items and returned items, then you should have one fulfillment activity for each branch which relates to the fulfillment method activity for that branch.

Implementation Considerations

You can have multiple fulfillment sets in a single order. If a line is a member of two fulfillment sets then all lines from both fulfillment sets must be fulfilled for any of the lines to complete the fulfillment activity.

If a line workflow process with a notification is in a fulfillment set, and the notification is rejected, then the other lines will not progress in their flows. You will have to delete or cancel the rejected line.

Example

Assume that you enter an order with four lines:

- Standard Item 1
- Standard Item 2
- An item which is shippable
- A service contract for that item.

You would like send the customer two separate invoices: one for the two standard items; and a second for the item with an associated service contract (extended warranty).

Put the two lines with standard items into a fulfillment set. Select Sets > Assign a Fulfillment Set Name, 2 from the context menu. The Fulfillment activity recognizes the service item as associated to the shippable product and considers the two in a Fulfillment set even though a Fulfillment Set name was not identified on either line. You would not want to bill for the service contract until the item was shipped. The service item will wait at the fulfill line activity until the shippable line arrives there, and then both lines will continue to invoicing at the same time.

When the order is booked, the shippable lines must complete the scheduling and shipping activities. These activities are not applicable for the service contract, so they will complete immediately. The two standard items will progress through the Fulfillment activity as Fulfillment Set 2. Similarly, the shippable line and the service contract will progress through the Fulfillment activity together as an implicit Fulfillment Set.

Change Orders in Oracle Shipping Execution

Topics covered in this chapter include the following:

- [Order Line Change in Shipping Execution](#) on page 20-2
- [Change Management Core Functionalities](#) on page 20-5
- [Setups](#) on page 20-7
- [Exception Messages](#) on page 20-9
- [Frequently Asked Questions](#) on page 20-11

Order Line Change in Shipping Execution

In the course of business, Customer Sales Representatives (CSR) enter sales order changes in Oracle Order Management (OM) or Oracle Project Contracts. Changes are required when customers ask to change quantity or shipping information, reschedule or cancel a sales order.

The OM Change Management in Shipping design improves the synchronization of delivery lines and reservations with the order lines when they are changed.

Prior to the Order Management Change Management design, changes to pickable orders were allowed as long as the orders were not booked or interfaced with Oracle Shipping Execution. However, once the orders were interfaced into Shipping and Pick Released, changes to the sales orders were limited.

The objective of the Line Change Management design is to allow most of the sales order changes up until the delivery lines are Staged or Ship Confirmed.

Only changes entered after the sales order lines are booked and interfaced with Shipping Execution are validated by the change logic in Shipping Execution. Order Attribute changes propagate in Shipping Execution based on the Shipping Execution change logic.

The following table lists sales order line changes resulting from Order Management updates. The change category letters correspond to Shipping Execution change logic as follows:

- A: Change in Quantity
- B: Change Organization, Inventory and Unschedule
- C: Change in Schedule Date
- D: Change in Ship Sets or Arrival Sets
- E: Change in Delivery Grouping Attributes

Table 20–1 Order Management Changes and Categories

| Order Management Change | Change Categories |
|--|-------------------|
| Cancel an order line | None |
| Split an order line | None |
| Ordered quantity (increase and decrease) | A |
| Change a line item or UOM | None |

Table 20–1 Order Management Changes and Categories

| Order Management Change | Change Categories |
|---|--------------------------|
| Change the requested schedule date (earlier or later) | C |
| Change the scheduled shipment date | C |
| Unschedule a sales order | B |
| Changes to ship sets or arrival sets | D |
| Ship from organization | B, E |
| Change subinventory | B |
| Intermediate ship-to organization | E |
| Change ship-to location | E |
| Deliver-to organization | E |
| FOB code | E |
| Freight carrier name | E |
| Sold-to organization | E |
| Currency code | None |
| Freight terms | E |
| Shipping method | E |
| Attributes related to ATO, PTO, and Kit | None |
| Customer dock code | None |
| Customer production sequence number | None |
| Customer PO number | None |
| Deliver-to contact | None |
| Intermediate ship-to contact | None |
| Shipment priority | None |
| Ship-to contact | None |

Change Logic

Before changes are considered, all line imports and line splits must be processed. The WSH_INTERFACE holds, in any order, the 3 types of entries from Order Management interface API call:

- Requests to Import lines and create matching deliveries (I - Import)
- Split existing delivery lines (S - Split)
- Order Management changes request to Update Shipping Attributes (U - Update)

Shipping scans all entries through WSH_INTERFACE to process Order Management entries in the proper order.

The Shipping change validation logic is initiated for interface lines where the action flag value is set to U for Update.

When a change is requested, the attribute change category is evaluated to determine what type of validation and action is needed to successfully update the Shipping attributes.

Order and Delivery Status Mapping

The following table shows the correlation between Sales Orders in Order Management and the related Shipping Deliveries status. Changes to sales order lines not interfaced from Order Management to Shipping are not restricted by Shipping. For sales order lines interfaced from Order Management to Shipping, changes are allowed based on attributes updates if the deliveries are not closed. No changes are allowed for Confirmed or Shipped deliveries if the interface between Shipping and Order Management has not run to update the sales orders.

Table 20–2 OM-WSH Changes and Status Mapping

| Sales Order Header | Order Line Detail | Changes | Delivery Status | Delivery Line |
|--------------------|-------------------|------------------------------------|-----------------|-----------------------|
| Entered | Entered | Yes | n/a | n/a |
| Booked | Awaiting Shipping | Based on type of attribute changes | Open | Ready to release |
| Booked | Awaiting Shipping | Based on type of attribute changes | Open | Released to warehouse |

Table 20–2 OM-WSH Changes and Status Mapping

| Sales Order Header | Order Line Detail | Changes | Delivery Status | Delivery Line |
|---------------------------|--------------------------|------------------------------------|------------------------|-----------------------|
| Booked | Awaiting Shipping | Based on type of attribute changes | Open | Backordered |
| Booked | Picked | Based on type of attribute changes | Open | Staged/Pick Confirmed |
| Booked | Shipped | Based on type of attribute changes | Confirmed | Shipped |
| Booked | Shipped | n/a | In transit | Shipped |
| Booked | Closed | n/a | Closed | Shipped |

Change Management Core Functionalities

OM-WSH Interface to Import Attribute Changes

Order Management initiates a change by passing updated sales order data to Shipping and setting the Interface Action flag to the Update value.

Shipping processes all interface data by:

- Importing order lines to create delivery line details for newly inserted records. (I)
- Processing Split request for existing delivery lines. (S)
- Shipping change validation determines what attributes have been changed. (U)

Based on the attributes changed, distinct validations are applied to propagate the order changes to Shipping delivery lines.

Shipping Attribute Change Validation Logic

The change validation logic is initiated for WSH_INTERFACE.Update_Shipping_Attributes lines where the Action Flag is set to U.

The distinct attribute changes that need validation are classified in the following categories:

- Change in Quantity

- Change Organization, Inventory, and Unschedule
- Change in Schedule Date
- Change in Ship Sets or Arrival Sets
- Change in Delivery Grouping Attributes

Changes to other attributes are propagated if the delivery status is not Shipped or Staged/Pick Confirmed.

Existing and new inventory reservations are managed by Shipping as detailed in the following section.

Inventory Reservations Logic

The Inventory reservation logic was redesigned so shipped quantities can always be matched with existing reservations during Inventory interface after Ship-confirmation. The reservations tables are part of the Oracle Inventory product. Inventory internal Applications Program Interfaces (APIs) are used to create, update, or cancel reservations stored in the Inventory tables. These APIs are called by Order Management and Shipping code to manage reservations and reservation splitting.

Reservation management by Order Management and Shipping:

- When an order is booked, the Order Management code creates reservations by calling Inventory APIs.
- After the order lines are interfaced in Shipping, existing Inventory reservations are managed in Shipping by calling Inventory APIs.
- Order Management does not update reservations with changes after booking. Instead, Shipping updates, creates, or deletes reservations for changes originated in Order Management.
- Overpicked quantities do not have existing reservations when orders are interfaced. Shipping creates additional reservations so all picked inventory items can be tied to the reservation.

Delivery Line Split

When an interfaced order line is split, Order Management requests a delivery line split by setting the OM-WSH interface API action flag to S for Split.

As Shipping splits a delivery line, it also synchronizes the Inventory reservation and splits and the move order line.

Split is allowed for delivery lines not ship confirmed.

- Delivery lines Released to Warehouse are reset to Ready to Release and their move order lines are canceled
- Reservations are split
- Both proportional and non-proportional splits retain and split original serial numbers

Note: Until release 11*i*, the Inventory interface ran before the Order Management interface at ship confirm time. Now, for invoicing reliability, the interface sequence is flipped so Order Management is updated first.

Setups

There are no mandatory setups to enable the Change Management functionality. Order Management provides constraints that can be customized during implementation. These constraints are used to prevent sales order changes after the associated delivery lines have been pick confirmed in Shipping.

If you choose to remove these constraints, it is recommended that you implement a two-step shipping process (Confirm/Close Delivery then Ship Confirm) or to always make sure the deliveries are ship confirmed as soon they are loaded or picked up by the carrier. If the system is not accurately updated in real-time, changes may be allowed after the deliveries are far-gone.

OM Constraints

Order Management provides constraints at pick confirm for users who physically ship deliveries before confirming them in the system. Without these constraints, this process can allow changes between the time items are shipped and the ship confirmation update in the system.

By default these constraints are active to disable order line changes after pick confirm step. Once the delivery lines have been pick confirmed/staged in Shipping Execution, Order Management users are not allowed to change, cancel or split order lines.

Disabling Constraints

Some users require changing order lines after the delivery is pick confirmed/staged and until the ship confirmation stage. The system supports flexibility of removing some or all the Order Management- Shipping constraints.

Note: In the event the system was not updated and changes are committed after the deliveries are physically shipped, users may have to handle exceptions manually (revert changes, move inventory, and adjust inventory).

Changing Defaults

To access the Order Management constraints window follow these steps:

1. Navigate to the Processing Constraints window. N: Setup > Rules > Security > Processing Constraints.
2. In the Application field, query Oracle Order Management.
3. In the Entity field, query Order Line.

List of OM Constraints at Pick Confirm

The Order Management constraints control the following types of Order Line changes once deliveries are ship confirmed:

- Update order line
- Cancel order line
- Delete order line
- Split order line

In turn, Order Line update is controlled for 22 different shipping attributes as shown in the following table:

Table 20–3 Order Management - Shipping Execution Constraints

| Actions | Fields |
|---------|-------------------------|
| Update | Authorized to Ship |
| Update | Customer |
| Update | Customer PO |
| Update | Customer PO Line Number |

Table 20–3 Order Management - Shipping Execution Constraints

| Actions | Fields |
|----------------|----------------------------------|
| Update | Deliver To Contact |
| Update | Deliver To Org |
| Update | FOB Point |
| Update | Freight Carrier |
| Update | Freight Terms |
| Update | Item Type |
| Update | Order Quantity UOM |
| Update | Ordered Quantity |
| Update | Packing Instructions |
| Update | Request Date |
| Update | Schedule Arrival Date |
| Update | Schedule Ship Date |
| Update | Ship To |
| Update | Ship To Contact |
| Update | Shipment Priority |
| Update | Shipping Instructions |
| Update | Subinventory (cannot be removed) |
| Update | Warehouse |
| Cancel | Not allowed if pick confirmed |
| Delete | Not allowed if pick confirmed |
| Split | Not allowed if pick confirmed |

Exception Messages

The following messages have been created to provide feedback to Order Management users when an order line change is rejected.

Update Not Allowed

Message: The update is not allowed because the source line is under WMS control.

This message is returned if the update cannot be executed because the source line is under Oracle Warehouse Management (WMS) control.

Update Cannot Split Quantities

Message: The source line cannot be split because quantity conversion has an error.

This message is returned if the update is rejected because the source line cannot be split due to a quantity conversion issue. This exception happens when the result of a split would create a null or negative quantity.

Attribute Update Not Allowed

Message: The update requested cannot be executed now because the source line has at least one delivery line that is in a confirmed delivery or has been shipped.

This message is returned when the update cannot be executed because the source order line is only partially eligible for a change. The order line is associated at least with a confirmed delivery line or has already been shipped. For a change to be allowed all delivery lines, related to the source order line, must be eligible for the change.

Invalid Source Code

Message: The Source code 'Source_code_name_string' is not recognized.

This message is returned when a delivery line update was rejected because it was requested by a product other than Order Management. The source code allowed is restricted to 'OE'. Other products cannot request Shipping changes.

Invalid Packing Condition Caused by Shipment Attribute Change

Message: One or more shipment attributes have been changed for delivery line &DETAIL. Please manually unassign the delivery line from container &CONTAINER_ID.

This packing exception message is returned when Order Management has changed at least one non-enforced Shipment attribute for a delivery line packed in an LPN (container.)

The update was executed but may require an additional manual step to unassign the delivery line from the LPN. The message provides the delivery line detail and the LPN ID to manually unassign the delivery line from it.

Frequently Asked Questions

How are inventory reservations handled?

Order Management creates Inventory reservations by calling internal Inventory APIs before interfacing sales order lines into Shipping.

Reservations can no longer be updated through Order Management forms. Instead changes to Inventory reservations are done automatically when a Sales Order change is entered. Reservations can be created and manually updated through the Inventory Reservations window.

Shipping manages reservation changes for all lines interfaced to Shipping that have reached an Order Management workflow status of Awaiting Shipping. Reservation changes for allocated or staged lines are allowed through backordering.

Do overpicked quantities have reservations?

Yes, Shipping creates reservations for overpicked delivery line quantities. Initially overpicked quantities do not have matching reservations. Shipping creates additional material reservations so the whole picked inventory is effectively reserved.

How do individual serial numbers and ranges get split?

Shipping splits serial numbers ranges and assigns individual numbers when splitting delivery lines with serially controlled items. Serial numbers already assigned to items are kept during splitting. When splitting delivery lines, Shipping handles splits then updates the MTL_SERIAL_NUMBERS_TEMP table. The serial numbers are exploded at Inventory Interface time. Serial numbers assigned to Backorders are deleted during split changes.

What happens when OM makes a change to a shipping delivery grouping attribute?

The result of changing a Delivery Grouping Attribute depends if the attribute changed is enforced. There are two types of Grouping attributes: mandatory and optionally enforced. Shipment attributes are a sub-category of Optional attributes.

There are five optionally enforced Shipping Delivery Grouping Attributes. The first four are Shipment Attributes:

1. Customer Name
2. Freight Terms

3. FOB Code
4. Ship Method
5. Intermediate Ship To Location

There are two mandatory Grouping attributes: Ship From Location and Ship To Location.

When Order Management requests to change any of the mandatory or optional attributes, Shipping will check the Shipping Parameters' Grouping Attributes to identify any optional attributes to enforce and perform the following actions:

- If the line is assigned to a delivery group, the delivery line will be unassigned from the delivery. Additionally, if the line is packed in a LPN, a packing exception will be returned. In both cases, the system will automatically unassign the line from the delivery and the LPN.
- If none of the Attributes changed are enforced, the system will make the change and the delivery line will not be unassigned. Also, if at least one Shipment Attribute is changed, an invalid packing exception will be logged for the delivery line if it is packed in a container (LPNs). An exception message will remind the user to unassign the delivery line manually.

What happens to the requested quantity when OM requests an ordered quantity change?

Shipping looks up all the delivery lines related to the source order line in a sequence governed by the line status and makes changes to the Requested Quantity if possible.

The line status order ranking criteria is as follow:

- Delivery line status: Not assigned, Open, Closed/Confirmed/In Transit.
- Packed status of the line: Not packed, packed.
- Planned status of the delivery: Unplanned, Planned.
- Released status of the lines and associated flag status:
 - Ready to Release (R)
 - Non-transactable/pickable (X)
 - Backordered (B)
 - Released to warehouse (S)
 - Staged (Y)

- Ascending order of the requested quantity of the line.

How are changes in source line quantity propagated to the delivery line requested quantity?

For the related source order line, Shipping looks up the delivery lines in the sequence described and makes a decision as follows:

Increase in Quantity: Line is updatable: The line is updated if it is unassigned from a delivery or if the delivery is Opened, line is not packed in a LPN container, delivery (if present) is unplanned and the line release status is one of Not Ready to be released, Ready to be released and Non Transactable.

New delivery line: For all cases except updatable delivery line as mentioned, a new delivery line is created with the increased quantity.

Decrease in Quantity: Ship partial updatable: Lines requested quantity is updatable except for any line part of a shipped delivery (confirmed, closed or in transit). In that case the requested reduction in quantity can be accepted only if it is not more than the sum of those lines which are not shipped.

Move order line update: The Inventory Move Order Line needs to be updated for lines in status Released to Warehouse.

Multiple lines: The shipment lines are looked up in sequence and their requested quantities are reduced until the sum of the reduced quantity reaches the requested reduction in the source line quantity.

Exceptions: An exception is logged along with the reduction in requested quantity for the shipment lines that are either staged, part of a planned delivery, or packed in a container.

What happens if Order Management tries to make changes to a ship confirmed delivery?

Changes to Shipped Confirmed or Closed delivery lines are not allowed. Instead a sales order line quantity increase creates a new delivery line.

How does Shipping handle a change in allocated/picked ship set delivery line?

For a Ship Set delivery line Allocated or Picked, the Order Management change request is fulfilled according to the Shipping parameter Enforce Ship Set at Picking.

- If Ship Set integrity is enforced, the change is not allowed for Allocated or Picked lines.

- If Ship Set is not enforced, then the change is allowed even if it breaks the Ship Set.

What happens during an organization change?

When a delivery line is transferred to a different organization, the Move Order Line (MOL) is reset to Ready to Release for the target Organization. The reservations in the original organization are deleted

Inventory reservations are created in the target Organization.

How are reservations handled during split line requests?

During a delivery line Split request the change logic retains and splits existing Inventory reservations. Reservations are associated with the delivery details. The delivery lines are sequenced according to their release status so that the shipped/staged lines with the specified inventory control will retain their reservations. The delivery lines not yet associated with a reservation (Ready to Release, Backordered, or Released to Warehouse) have their reservations split arbitrarily.

What happens to changes on partially shipped deliveries (split lines)?

What happens when a change is requested for an Order line that spans across two or more Deliveries, one of which is Ship Confirmed or Closed but not OM interfaced? Regardless of other delivery lines eligibility for changes, no changes are allowed until the Order Management interface has updated the source Order line. This is to prevent data corruption since the source order line has not been updated by the shipped line. The change request can be manually resubmitted successfully once the source order line has been updated by the shipped delivery line.

Are non-proportional split changes supported?

Yes both Order Management and Shipping support non-proportional Splits. The delivery lines are kept synchronized with the Order Lines during Order Management non-proportional set splits by propagating changed attributes to the Ship Set delivery lines.

Order is Booked/Scheduled

Once eligible booked sales orders are interfaced from Order Management to Shipping Execution. The delivery lines are accessible from the Shipping Transactions form. The initial delivery line status is “Ready to Release”.

Change the Organization or Subinventory

These changes are supported; changes can be made with no restriction.

Change a Line Item

Changing customer item is supported as long as the Inventory item is not changed on a existing delivery line. There is no change restriction if there is no delivery line.

Cancel an Order Line

This change is supported. The delivery lines are set as Canceled.

Decrease Delivery Line Quantity

This change is supported. The delivery line quantity is reduced.

Increase Delivery Line Quantity

This change is supported. The delivery line quantity is increased accordingly.

Move the Schedule Date Later or Earlier

This change is supported. The delivery detail is updated with the new scheduling information.

Unschedule a Delivery Line

This change is supported. The delivery line status is set to Ready to Release.

Changes to a Ship Set

If the Shipping Parameter Enforce Ship Set is active, changes to ship sets are allowed in Order Management before the inventory is allocated or before the delivery lines are picked. You can remove an order line from a ship set, regardless of the Shipping Parameter Enforce Ship Sets or the delivery line status prior to ship confirm.

Change Ship-to Location

This change is supported if the delivery line is not assigned to delivery or a container. If the delivery line is assigned, an exception is logged and the delivery line is assigned from the delivery.

Split an Order Line

This change is supported. The delivery line detail is split.

Delivery Lines are Pick Released

The following details show how the order changes are supported after delivery lines get Pick Released. The inventory is allocated when a Move Order is created during pick release.

Change the Organization or Subinventory

These changes are supported. The delivery Move Order allocation status is changed to canceled, the delivery detail is updated with the new organization and the status is reset to Ready to Release. New reservations are created.

Change a Line Item

This change is not directly supported. An item cannot simply be changed for a different one at this stage. The CSR will need to cancel the order line. A new order line should be created with the replacement item.

Cancel an Order Line

This change is supported. The delivery line is set to status Canceled and the Move Order line is deleted.

Decrease Delivery Line Quantity

This change is supported identically for Backordered lines. The Move Order line quantity is updated and if applicable, the extra serial numbers are unassigned.

Increase Delivery Line Quantity

This change is supported. A new delivery detail with status Ready to Release is created for the extra quantity. A new material reservation is added.

Move the Schedule Date Later or Earlier

This change is supported. The delivery detail is updated with the new scheduling information.

Unschedule a Delivery Line

This change is supported. The Move Order Line status is set to Canceled and the delivery detail status is changed to Ready To Release.

Change Within a Ship Set

This change is supported unless the Ship set profile option is set to Enforce Ship Set in Shipping. The delivery details are updated with the changes.

Change Ship-to Location

This change is supported if the delivery line is not assigned to delivery or a container. If the delivery line is assigned, an exception is logged and the delivery line is assigned from the delivery.

Split an Order Line

This change is supported. The delivery line detail is split.

Delivery Lines Released to Warehouse

This status reflects that the Move Order lines were created and the delivery lines have been released to the warehouse. Lines may have been successfully allocated but not pick confirmed.

In this step, the inventory items are picked from inventory location. The picking operation ends with a Pick confirmation to progress the delivery line to Staged status.

Change the Organization or Subinventory

These changes are supported. The delivery move order allocations are deleted, the delivery detail is update with the new organization, and the status is reset to "Ready to Release". New reservations are created.

Change a Line Item

This change is not directly supported. An item cannot simply be changed for a different one at this stage. The order line will have to be canceled. A new order line should be created with the replacement item.

Cancel an Order Line

This change is supported. The delivery details are set as Canceled and the Move Order line is deleted.

Decrease Delivery Line Quantity

This change is supported. The Move Order line quantity is updated and if applicable, the extra serial numbers are unassigned.

Increase Delivery Line Quantity

This change is supported. A new delivery detail with status Ready to Release is created for the extra quantity. A new reservation assignment is added.

Move the Schedule Date Later or Earlier

This change is supported. The delivery detail is updated with the new scheduling information.

Unschedule a Delivery Line

This change is supported. The Move Order Line is deleted and the release status of the delivery detail is changed to Ready To Release.

Change Within a Ship Set

This change is supported unless the Ship Set profile option is set to Enforce Ship Set in Shipping. Both the delivery details and the Move order lines are updated with the changes.

Change Ship-to Location

This change is supported if the delivery line is not assigned to delivery or a container. If the delivery line is assigned, an exception is logged and the delivery line is unassigned from the delivery.

Split an Order Line

This change is supported. The delivery line detail is split.

Staged Delivery Lines

Occurs after Pick Confirm to reflect the subinventory transfer from source inventory location to staging area has completed. The picked items have been dropped in the staging inventory area. Delivery lines remain Staged until they are Ship Confirmed.

Change the Organization or Subinventory

These changes are supported. The inventory control information is cleared and the delivery detail is set to status Ready to Release. An exception is logged.

Change a Line Item or Unschedule a Delivery Line

This change is not directly supported. An item cannot simply be changed for a different one at this stage. The order line will have to be canceled. A new order line should be created with the replacement item.

Cancel an Order Line

This change is supported. The delivery lines are set to Canceled and an exception is logged.

Decrease Line Quantity

This change is supported. The Move Order line quantity is adjusted, if applicable the serial numbers are unassigned. An exception is logged.

Increase Delivery Line Quantity

This change is supported. A new delivery detail with status Ready to Release is created for the extra quantity. A new reservation is created.

Move the Schedule Date Later or Earlier

This change is supported. The delivery detail is updated with the new scheduling information.

Unschedule a Delivery Line

This change is supported. The status of the delivery detail is changed to become Ready to Release.

Change Within a Ship Set

This change is supported unless the Ship Set profile option is set to Enforce Ship Set in Shipping. The delivery details are updated with the changes.

Change Ship-to Location

This change is supported if the delivery line is not assigned to delivery or a container. If the delivery line is assigned, an exception is logged and the delivery line is unassigned from the delivery.

Split an Order Line

The delivery lines are split and remain in Staged status.

Ship Confirmed, In Transit, or Closed

Note: Companies that choose to support order changes after staging should ship confirm all deliveries in the system as they are moved across the loading dock or before. Ship confirming deliveries after loading or departure can enable you to make changes based on outdated status.

You should ship confirm deliveries at the point when order changes should no longer be allowed through the system. This may be as the inventory is moved through the loading dock or when a seal is applied to the truck trailer door. Failure to update the order status while the order is being loaded will mislead CSRs to believe the delivery is still in house when it is actually in transit.

Delivery at the Loading Dock

The deliveries have not been and should not be loaded on board the truck.

Delivery On Board the Truck at the Loading Dock

The truck should be unloaded or if not practical the delivery drop-off should be canceled and dropped off back at the pick up stop.

Delivery Truck In Transit

The delivery carrier should be called and asked not to deliver the goods or turn the truck around.

Delivery Dropped Off

An RMA should be issued, the delivery should be returned. A separate replacement order should be created.

Summary

In this section, you can find status tables to quickly capture the results of an Order Management change.

Sales order line changes in Order Management are not allowed if any related delivery line is either Confirmed or Shipped AND the interface from Shipping to Order Management has not yet run.

Table 20–4 Shipping Actions for a Requested Quantity Change

| Detail Status | Packed | Planned | Sequence of Selection | Increase Line Quantity | Decrease Quantity (but not to zero) | Decrease Quantity to Zero |
|---|---------------|----------------|--|---|--|----------------------------------|
| Line unassigned from a delivery or delivery is open | No | No | Not Ready to be released | Increase fully, consider no more shipment lines | Decrease requested quantity; if not sufficient for the change request, proceed to the next shipment line | Cancel delivery details |
| Line unassigned from a delivery or delivery is open | No | No | Ready to be released or non-transactable | Increase fully, consider no more shipment lines | Decrease requested quantity; if not sufficient for the change request, proceed to the next shipment line | Cancel delivery details |

Table 20–4 Shipping Actions for a Requested Quantity Change

| Detail Status | Packed | Planned | Sequence of Selection | Increase Line Quantity | Decrease Quantity (but not to zero) | Decrease Quantity to Zero |
|---|---------------|----------------|------------------------------|---|---|---|
| Line unassigned from a delivery or delivery is open | No | No | Backordered | New delivery detail with full change, consider no more shipment lines | Decrease requested quantity; if not sufficient for the change request, proceed to the next shipment line | Cancel delivery details |
| Line unassigned from a delivery or delivery is open | No | No | Released to warehouse | New delivery details with full change, reservations are created | <ul style="list-style-type: none"> - Update move order line - Unassign serial numbers - Decrease requested quantity; if not sufficient for the change request, proceed to the next shipment line | <ul style="list-style-type: none"> - Delete move order line - Cancel delivery details |

Table 20–4 Shipping Actions for a Requested Quantity Change

| Detail Status | Packed | Planned | Sequence of Selection | Increase Line Quantity | Decrease Quantity (but not to zero) | Decrease Quantity to Zero |
|---|---------------|----------------|------------------------------|---|---|--|
| Line unassigned from a delivery or delivery is open | No | No | Staged/Pick Confirmed | New delivery detail with full change, consider no more shipment lines | <ul style="list-style-type: none"> - Log exception - Decrease requested quantity; if not sufficient for the change request, proceed to the next shipment line | <ul style="list-style-type: none"> - Log exception - Cancel delivery details |
| Line unassigned from a delivery or delivery is open | No | Yes | Any other than canceled | New delivery detail with full change, consider no more shipment lines | <ul style="list-style-type: none"> - Log exception - Decrease requested quantity; if not sufficient for the change request, proceed to the next shipment line | <ul style="list-style-type: none"> - Log exception - Cancel delivery details |

Table 20–4 Shipping Actions for a Requested Quantity Change

| Detail Status | Packed | Planned | Sequence of Selection | Increase Line Quantity | Decrease Quantity (but not to zero) | Decrease Quantity to Zero |
|---|---------------|----------------|--|---|---|--|
| Line unassigned from a delivery or delivery is open | Yes | Any | Any other than canceled | New delivery detail with full change, consider no more shipment lines | <ul style="list-style-type: none"> - Log exception - Decrease requested quantity; if not sufficient for the change request, proceed to the next shipment line | <ul style="list-style-type: none"> - Log exception - Cancel delivery details |
| Delivery is confirmed, in transit, or closed | Any | Any | Status is closed; create a new sales order | After Order Management Interface run, new delivery detail with full change, consider no more shipment lines | Reject, return eligible quantity, and rollback | Reject, return eligible quantity, and rollback |

Table 20–5 OM Changes vs. Shipping Actions

| Action | Booked or Scheduled | Pick Released | Reservations Allocated | Pick Confirmed or Staged |
|--|---|---|--|--|
| Change organization | Make change | <ul style="list-style-type: none"> - Delete move order line - Update delivery detail with new warehouse - Delivery detail should be Ready to Release | <ul style="list-style-type: none"> - Set Status on the move order line to canceled - Make delivery detail Ready to Release and change - Clear inventory control information - OM deletes reservation and recreates | <ul style="list-style-type: none"> - Make change - Log exception - Unassign if needed - Clear inventory information - Make delivery detail Ready to Release |
| Change subinventory | Make change | <ul style="list-style-type: none"> - Delete move order line - Update delivery detail with the new subinventory | <ul style="list-style-type: none"> - Set Status on the move order line to canceled - Make delivery detail Ready to Release and change - Clear inventory control information | <ul style="list-style-type: none"> - Make change - Log exception - Unassign if needed - Clear inventory information - Make delivery detail Ready to Release |
| Change inventory line item (only Customer Item can be changed) | Change not allowed in Order Management with delivery in that status | Change not allowed in Order Management with delivery in that status | Change not allowed in Order Management with delivery in that status | Change not allowed in Order Management with delivery in that status |

Table 20–5 OM Changes vs. Shipping Actions

| Action | Booked or Scheduled | Pick Released | Reservations Allocated | Pick Confirmed or Staged |
|---------------------------------------|--|---|---|--|
| Unschedule | Set delivery detail released status to Ready to Release | - Delete move order line - Update delivery detail released status as Ready to Release and change | - Set Status on the move order line to canceled - Make delivery detail Ready to Release and change | - Make change - Log exception - Unassign if needed - Reset status to Ready to Release |
| Schedule date change: Date pulled in | Update delivery detail with new scheduling information | Update delivery detail with new scheduling information | Update delivery detail with new scheduling information | Update delivery detail with new scheduling information |
| Schedule date change: date pushed out | - Update delivery detail with new scheduling information - Log an exception | - Update delivery detail with new scheduling information - Log an exception | - Update delivery detail with new scheduling information - Log an exception | - Update delivery detail with new scheduling information - Log an exception |
| Increase quantity | Increase delivery details quantity | - Create new delivery detail with status Ready for Release for the extra quantity - Create new assignments if needed | <blank> | <blank> |

Table 20–5 OM Changes vs. Shipping Actions

| Action | Booked or Scheduled | Pick Released | Reservations Allocated | Pick Confirmed or Staged |
|----------------------------------|--|---|---|--|
| Decrease quantity or cancel line | <ul style="list-style-type: none"> - Decrease quantity - Set delivery details status to canceled if delivery detail is completely canceled | <ul style="list-style-type: none"> - Decrease quantity and update move order line - Unassign and unmark serial number if needed - Set delivery details status to canceled if delivery detail is completely canceled - Delete move order line if completely canceled | <ul style="list-style-type: none"> - Decrease quantity and update move order line - Unassign and unmark serial number if needed - Set delivery details status to canceled if delivery detail is completely canceled - Delete move order line if completely canceled | <ul style="list-style-type: none"> - Decrease quantity - Log exception - Unassign and unmark serial number if needed - Set delivery details status to canceled if delivery detail is completely canceled |
| Ship set | Make change | <ul style="list-style-type: none"> - Update delivery details - Update move order lines if enforce ship set | Update delivery details | Update the set |
| Split line | Make change and split delivery details | Make change, split delivery details and unrelease (set to Ready to Release) | Make change, split delivery details and unrelease (set to Ready to Release) | Make change and split delivery detail |
| Delivery grouping attributes | Make change and split delivery details | Make change, split delivery details and unrelease (set to Ready to Release) | Make change, split delivery details and unrelease (set to Ready to Release) | Make change and split delivery detail |

Table 20–5 OM Changes vs. Shipping Actions

| Action | Booked or Scheduled | Pick Released | Reservations Allocated | Pick Confirmed or Staged |
|---|---|---|---|---|
| Organization, implicit, mandatory | If assigned to delivery or container, log an exception and unassign from delivery | If assigned to delivery or container, log an exception and unassign from delivery | If assigned to delivery or container, log an exception and unassign from delivery | If assigned to delivery or container, log an exception and unassign from delivery |
| Ship from location, implicit, mandatory | If assigned to delivery or container, log an exception and unassign from delivery | If assigned to delivery or container, log an exception and unassign from delivery | If assigned to delivery or container, log an exception and unassign from delivery | If assigned to delivery or container, log an exception and unassign from delivery |
| Ship to location, implicit, mandatory | <ul style="list-style-type: none"> - If not assigned to delivery or container, make change. - If assigned to delivery or container, log an exception and unassign from delivery | <ul style="list-style-type: none"> - If not assigned to delivery or container, make change. - If assigned to delivery or container, log an exception and unassign from delivery | <ul style="list-style-type: none"> - If not assigned to delivery or container, make change. - If assigned to delivery or container, log an exception and unassign from delivery | <ul style="list-style-type: none"> - If not assigned to delivery or container, make change. - If assigned to delivery or container, log an exception and unassign from delivery |
| Intermediate ship to location, implicit, optional | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery |
| Customer, explicit, optional | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery |
| Freight terms, implicit, optional | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery |
| FOB code, explicit, optional | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery |
| Ship method, explicit, optional | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery |

Table 20–5 OM Changes vs. Shipping Actions

| Action | Booked or Scheduled | Pick Released | Reservations Allocated | Pick Confirmed or Staged |
|---|---|--|---|---|
| Carrier, explicit | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery |
| Delivery, implicit, mandatory when assigned to delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery |
| Legend for delivery grouping attributes | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery | If enforced, unassign from the delivery |
| Implicit: Automatically included, not part of shipping parameters | Mandatory: Always Yes | Optional: Can be Yes or No, usually set for each organization in the shipping parameters | <blank> | <blank> |

Order Management & Inventory Interface Flip

The Trip Stop Interface sequence was flipped so sales orders can be invoiced regardless of any Inventory interface exception. Generally issuing invoices is more important than keeping an accurate on-hand quantities.

Previously the Inventory interface had to complete first before the Order Management interface could run.

The Change Order Information functionality enables the Order Management interface to correctly split Inventory reservations for shipped and unshipped lines. The Inventory interface no longer needs to run first to consume shipped delivery lines Inventory reservations.

Backorders in Shipping Execution

Topics covered in this chapter include the following:

- [Introduction](#) on page 21-2
- [Release Statuses](#) on page 21-2
- [Backorder at Pick Release](#) on page 21-5
- [Backorder at Ship Confirmation](#) on page 21-5
- [Backorders and Cycle Counting](#) on page 21-13
- [Backorders and Over picking](#) on page 21-16

Introduction

This chapter describes the functional flow of the backorder process in Shipping Execution.

The Backorder status:

- Provides Order Management with better visibility to the status of a shipment line
- Provides cross docking capability within Oracle Warehouse Management against backordered delivery details upon receiving new material

Note: When cross docking was integrated into Oracle Shipping Execution, the system gained new RELEASED_STATUS values, including Backordered status. Statuses of, Not Ready for Release, Ready to Release, Released to Warehouse, Backordered, Staged, and Shipped are visible at the line level.

- Provides feedback to production planners and schedulers what items need replenishing

Release Statuses

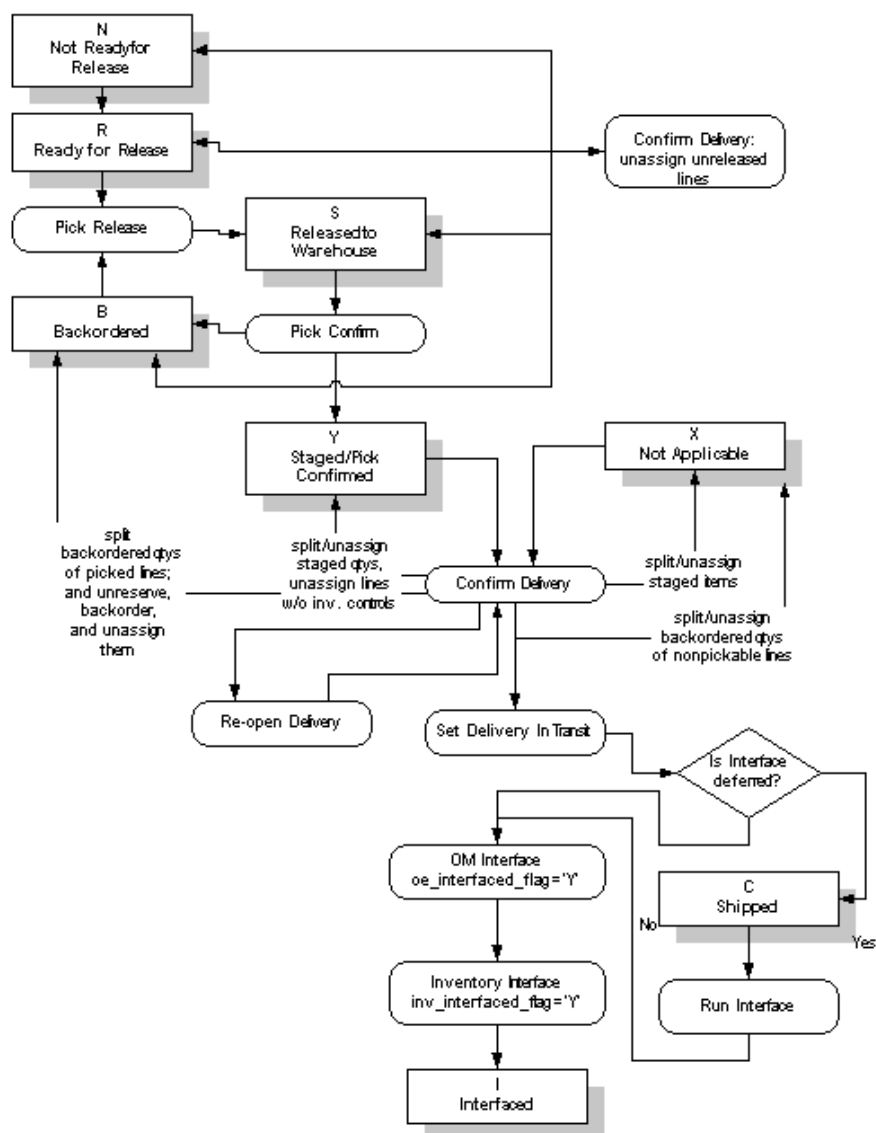
The following list displays the various pick statuses along with a description for the status and an event that will cause the status to display on the delivery line.

- Not Ready for Release: This status occurs when a delivery line is manually imported into Shipping Execution using the Import Delivery Line program prior to the line reaching the shipping workflow in OM.
- Ready for Release: The order line has reached the Shipping Workflow activity in Order Management, meaning the line has been booked, scheduled, and imported into Shipping Execution. Pick Release is initiated. The pick release process creates a Move Order Header and Move Order Line in Oracle Inventory. This is a common status that occurs when performing a two-step pick release process. It indicates that inventory allocation has occurred however pick conformation has not yet taken place.
- Staged/Pick Confirmed: The line receives the status of Staged once inventory has been allocated and pick confirmed. The allocation step and the pick confirmation step can be done manually or automatically based on business

needs. Auto allocation and auto pick confirm are determined by set up steps in the Shipping Parameters form.

- **Backordered:** The status of Backordered is assigned to a line under the following circumstances:
 - The Pick Release process attempted to allocate inventory to the line and all or a partial quantity of the item was not available. In this case the system automatically backorders the discrepant quantity.
 - At ship confirm you enter a shipped quantity for an item that is less than the original requested quantity.
 - You Backorder an entire delivery.
 - You record a missing quantity by transferring a reservation to cycle count.
- **Shipped:** The delivery that the line is assigned to has been set to intransit, and the OM Interface and Inventory Interface processes have been deferred.
- **Not Applicable:** The Not Applicable status applies to non-shippable order lines. For example, lines that are invoiced by not physically shipped. Items such as service and warranty would have a status of Not Applicable.
- **Interfaced:** The delivery line is shipped and the OM Interface and Inventory Interface concurrent processes have completed.
- **Canceled:** The Canceled status applies when the order line has been canceled in Order Management.

Figure 21–1 Delivery Detail Status Flow



Backorder at Pick Release

One way a delivery line detail can receive a picking status of Backordered is by auto-backorder. When the system determines insufficient inventory exists at the time of inventory allocation, it automatically splits the line if partial quantities are released and changes the status to Backordered for the unreleased quantity.

Picking Steps

1. Pick release creates pick wave move order header.
2. Pick release creates move order line.
3. Move order line is allocated at pick release or at a subsequent step.
4. Inventory updates Shipping Execution with the results of allocation. If a shortage exists (the quantity requested is greater than the quantity allocated on the move order line) Shipping performs the auto-backorder routine.

Auto-backorder Routine

1. Split delivery line.

The detailed quantity remains on the original line. The status of the original line is progressed.

The difference between the requested quantity and the detailed quantity is indicated on the second line (the new line resulting from the split). The status of the new line is Backordered. The new delivery line will have no value in its move order line reference field (a new move order line for this delivery line will be created when the delivery line is pick released).

2. Update the Move Order Line. Shipping calls Inventory to change the requested quantity on the move order line. The new requested quantity should equal the allocated quantity.

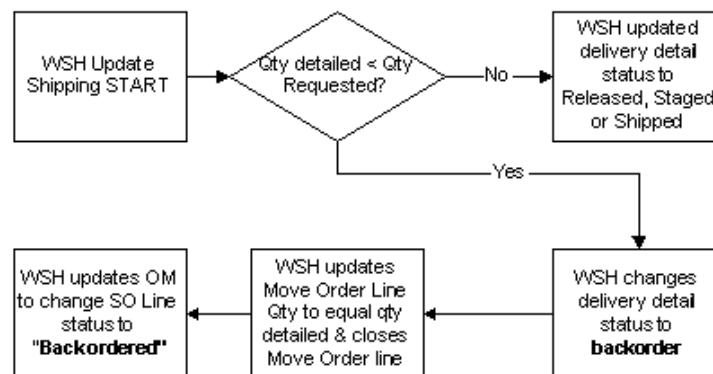
Backorder at Ship Confirmation

Backordering also happens at Ship Confirmation either by backordering the entire delivery, in which case all delivery lines that are associated with the delivery will receive a picking status of Backordered. Or you can enter a shipped quantity of less than the requested quantity to backorder a partial quantity of the items being shipped.

Picking Steps

1. Pick release creates pick wave move order header and lines
2. Move order line is detailed
3. Move order line is pick confirmed
4. Delivery is backordered at ship confirmation
5. If status of planned, keep LPN and delivery assignment. Otherwise, unpack if packed.
6. Change line status to Backordered.

Figure 21–2 Backorder Flow

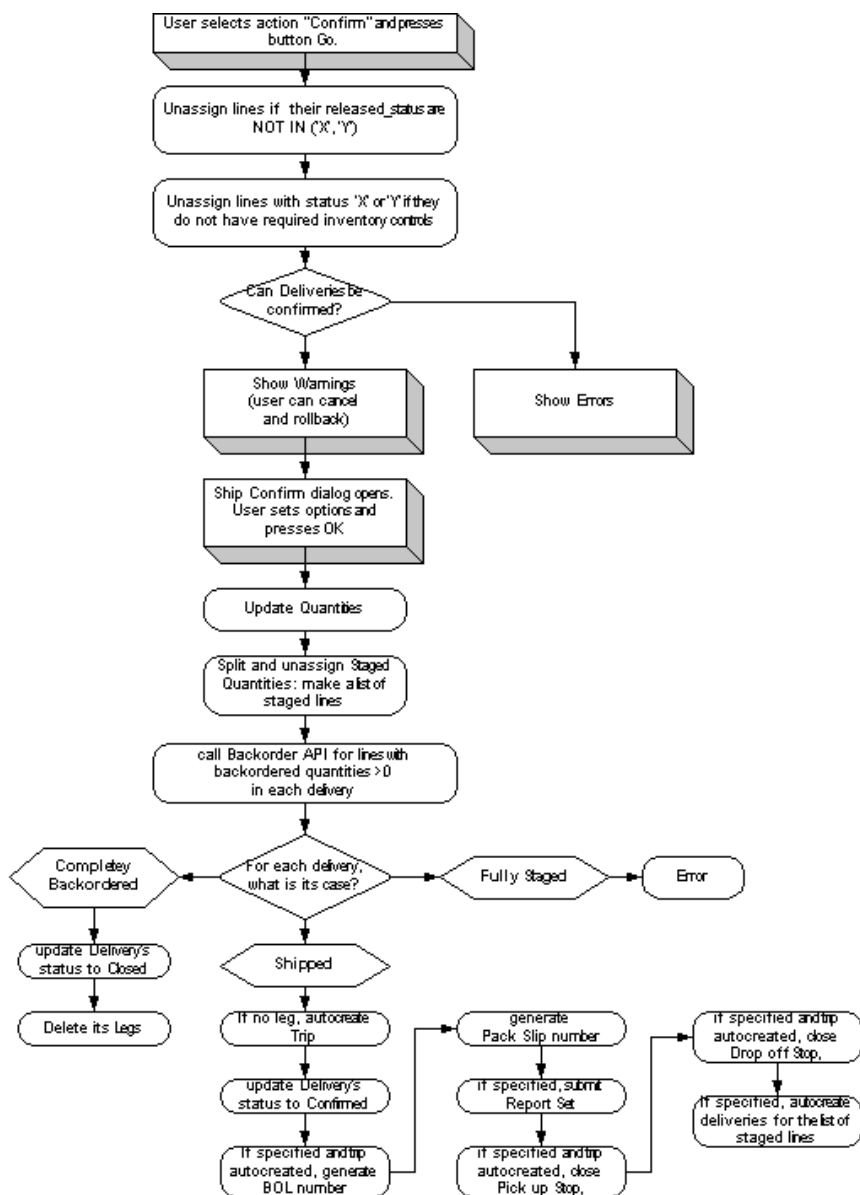


In the physical flow of the backorder process, material may or may not exist. In the case where the material does not exist, the backorder process is used to identify inventory discrepancies. For example, the system allocates the complete requested quantity at Pick Release based on availability. When the picker physically accesses the picking location, the quantity available to pick is less than the quantity the system determined as available. The shipper enters the actual quantity available in the shipped quantity field. The result of the ship confirm action is as follows:

- The line is split into two. One line will indicate the entered quantity as shipped quantity and have a pick status of shipped and the other line will indicate the unshipped quantity with a status of backordered.

- Another case is when the material being shipped is available and material is being backordered for specific business reasons. For example, all available material has been allocated to a specific customer when you find out additional supply for other orders will be delayed. Another customer will have a down production line situation if some of the allocated material doesn't get to them right away. A decision could be made to ship a partial quantity to one customer and backorder enough quantity to accommodate the down line situation. At the ship confirmation step, you enter a partial ship quantity for the material. At ship confirmation, the line is split into two lines. One with a status of Shipped for the entered quantity's and one with a status of Backordered for the unshipped lines.
- The physical material for the backordered material systematically resides in the staging location. A manual subinventory transfer is required if the desired location of the backordered material is another location.
- Pick Release could be run again for the down line customer and the system will allocate the material that was previously allocated to the backordered lines to the down line customer.

This diagram illustrates the transaction flow for backorders.

Figure 21-3 Transaction Flow for Backorders

Scenario 1: Shortage at Detailing

A sales order line for 10 units of item A is booked and released. Only seven units exist in inventory. The order is allocated, pick confirmed and ship confirmed.

Post Detailing

During allocation, seven units are found. Inventory updated shipping with the results of the detail. Auto backorder split the delivery line and called OM to split the sales order line. Oracle Shipping then reduced the requested quantity on the move order line. These tables show post detailing data for sales order lines, delivery lines, move order lines, and move order line details.

Table 21–1 Sales Order Lines

| Line | Quantity |
|------|----------|
| 1 | 7 |
| 1.1 | 3 |

Table 21–2 Delivery Lines

| Line | SO Line | Qty | MO Line | Staged Qty | Status | Subinventory |
|------|---------|-----|---------|------------|-------------|--------------|
| 100 | 1 | 7 | 1000 | 0 | Released | |
| 101 | 1.1 | 3 | | | Backordered | |

Table 21–3 Move Order Lines

| Line | Req Qty | Detailed Qty | Delivered Qty |
|------|---------|--------------|---------------|
| 100 | 7 | 7 | 0 |

Table 21–4 Move Order Line Details (MMTT)

| Line | MO Line | Qty | From Loc | To Loc |
|------|---------|-----|----------|--------|
| 100 | 1000 | 7 | Stores | Stage |

Pick Confirm

You pick confirm the seven units. Because the move order line was changed at detailing, the move order line is closed at pick confirm even though all 10 units

were not found. These tables show pick confirm data for sales order lines, delivery lines, move order lines, and move order line details.

Table 21–5 Sales Order Lines

| Line | Quantity |
|------|----------|
| 1 | 7 |
| 1.1 | 3 |

Table 21–6 Delivery Lines

| Line | SO Line | Qty | MO Line | Staged Qty | Status | Subinventory |
|------|---------|-----|---------|------------|-------------|--------------|
| 100 | 1 | 7 | 1000 | 7 | Staged | Stage |
| 101 | 1.1 | 3 | | 0 | Backordered | |

Table 21–7 Move Order Lines

| Line | Req Qty | Detailed Qty | Delivered Qty |
|------|---------|--------------|---------------|
| 1000 | 7 | 7 | 7 |

Table 21–8 Move Order Line Details

| Line | MO Line | Qty | From Loc | To Loc |
|-------|---------|-----|----------|--------|
| 10000 | 1000 | 7 | Stores | Stage |

Ship Confirm

You now ship confirm the seven units. These tables show ship confirm data for sales order lines, delivery lines, move order lines, and move order line details.

Table 21–9 Sales Order Lines

| Line | Quantity |
|------|----------|
| 1 | 7 |
| 1.1 | 3 |

Table 21–10 Delivery Lines

| Line | SO Line | Qty | MO Line | Staged Qty | Status | Subinventory |
|------|---------|-----|---------|------------|-------------|--------------|
| 100 | 1 | 7 | 1000 | 7 | Shipped | |
| 101 | 1.1 | 3 | | 0 | Backordered | |

Table 21–11 Move Order Lines

| Line | Req Qty | Detailed Qty | Delivered Qty |
|------|---------|--------------|---------------|
| 1000 | 7 | 7 | 7 |

Table 21–12 Move Order Line Details

| Line | MO Line | Qty | From Loc | To Loc |
|-------|---------|-----|----------|--------|
| 10000 | 1000 | 7 | Stores | Stage |

Scenario 2: Shortage Reported at Pick Confirm

A Sales Order line for 10 units of item A is booked and released. Seven units are found during detailing but at pick confirmation you report a missing quantity of one and can only pick confirm six units for the order.

Post Detailing

Allocation completes successfully and all 10 units are found. These tables show post detailing data for sales order lines, delivery lines, move order lines, and move order line details.

Table 21–13 Sales Order Lines

| Line | Quantity |
|------|----------|
| 1 | 10 |

Table 21–14 Delivery Lines

| Line | SO Line | Qty | MO Line | Staged Qty | Status | Subinventory |
|------|---------|-----|---------|------------|----------|--------------|
| 100 | 1 | 10 | 1000 | 0 | Released | |

Table 21–15 Move Order Lines

| Line | Req Qty | Detailed Qty | Delivered Qty |
|------|---------|--------------|---------------|
| 1000 | 10 | 10 | 0 |

Table 21–16 Move Order Line Details (MMTT)

| Line | MO Line | Qty | From Loc | To Loc |
|-------|---------|-----|----------|--------|
| 10000 | 1000 | 10 | Stores | Stage |

Pick Confirm

You were instructed to find 10 units but could only find seven. A missing quantity is reported, when you asked the system to redetail the balance, the system could not find more quantity of the item (the results would be the same if you had not prompted the system to find the balance.) These tables show pick confirm data for sales order lines, delivery lines, move order lines, and move order line details.

Table 21–17 Sales Order Lines

| Line | Quantity |
|------|----------|
| 1 | 7 |
| 1.1 | 3 |

Table 21–18 Delivery Lines

| Line | SO Line | Qty | MO Line | Staged Qty | Status | Subinventory |
|------|---------|-----|---------|------------|-------------|--------------|
| 100 | 1 | 7 | 1000 | 7 | Staged | Stage |
| 101 | 1.1 | 3 | | 0 | Backordered | |

Table 21–19 Move Order Lines

| Line | Req Qty | Detailed Qty | Delivered Qty |
|------|---------|--------------|---------------|
| 100 | 7 | 7 | 7 |

Table 21–20 Move Order Line Details

| Line | MO Line | Qty | From Loc | To Loc |
|------|---------|-----|----------|--------|
| 100 | 1000 | 7 | Stores | Stage |

Ship Confirm

You now ship confirm the seven units that were available to ship in the staging location. These tables show ship confirm data for sales order lines, delivery lines, move order lines, and move order line details.

Table 21–21 Sales Order Lines

| Line | Quantity |
|------|----------|
| 1 | 7 |
| 1.1 | 3 |

Table 21–22 Delivery Lines

| Line | SO Line | Qty | MO Line | Staged Qty | Status | Subinventory |
|------|---------|-----|---------|------------|-------------|--------------|
| 100 | 1 | 7 | 1000 | | Shipped | |
| 101 | 1.1 | 3 | | | Backordered | |

Table 21–23 Move Order Lines

| Line | Req Qty | Detailed Qty | Delivered Qty |
|------|---------|--------------|---------------|
| 100 | 7 | 7 | 7 |

Table 21–24 Move Order Line Details (MMTT)

| Line | MO Line | Qty | From Loc | To Loc |
|------|---------|-----|----------|--------|
| 100 | 1000 | 7 | Stores | Stage |

Backorders and Cycle Counting

The ability to identify and remedy inventory discrepancies as part of the picking and shipping process is available in Oracle Shipping Execution.

Prior to release 11i, if you identified a material shortage while picking and shipping delivery lines, your only option was to backorder the discrepant quantity and alert inventory control personnel to make an inventory adjustment for the material shortage. If this manual alert was not made, the enterprise ran the risk of having unavailable material allocated again at the next pick release process until someone synchronized the physical inventory with the system inventory. The cycle count

action in the Shipping Transactions form provides a mechanism for you to split the line, one line representing the actual shippable quantity and another line representing the quantity that is backordered. At the same time the reservation is transferred to cycle count so the inventory will not be available at the next pick release process.

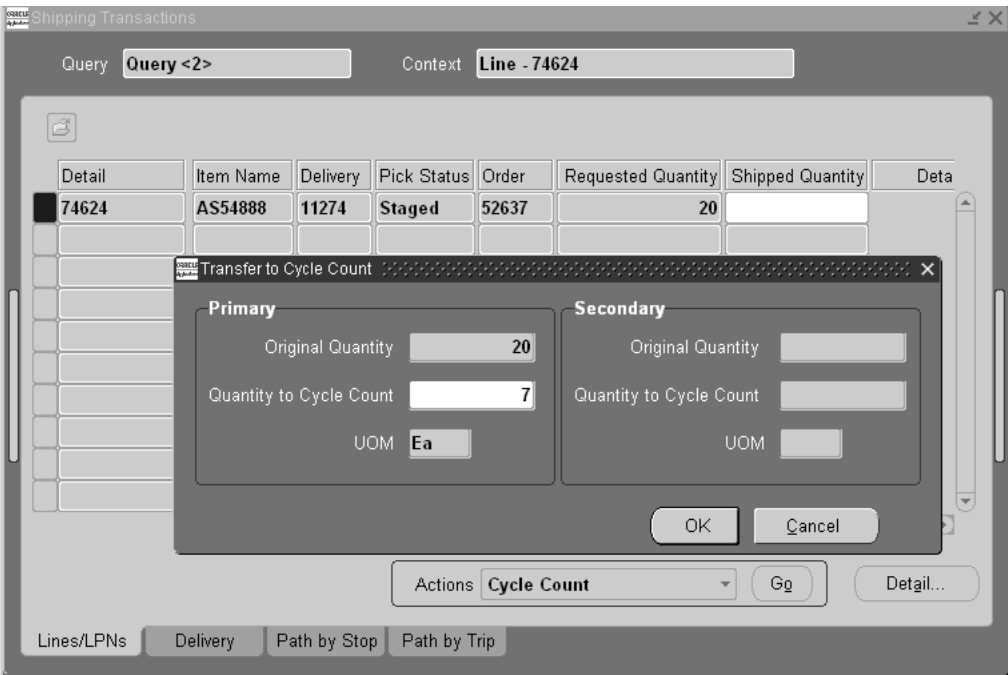
The process to send a reservation to cycle count and backorder lines that were released as a result of discrepant inventory is as follows.

Within the Shipping Transactions form:

- 1. Select a line with a pick status of staged.
- 2. Select Cycle Count from the action menu.
- 3. Click go.

The Transfer to Cycle Count window opens. In this figure, the delivery has a delivery detail with an ordered quantity of 20.

Figure 21–4 Transfer to Cycle Count Window



4. If you enter a quantity less than 20 (for example, seven), the delivery detail will split as 13 staged, and seven backordered, as shown in the following figure:

Figure 21–5 Shipping Transactions Window

The screenshot shows the 'Shipping Transactions' window. At the top, there are fields for 'Query' (Query <2>) and 'Context' (Line - 74624). Below these is a table with the following columns: Detail, Item Name, Delivery, Pick Status, Order, Requested Quantity, Shipped Quantity, and Deta. The table contains two rows of data:

| Detail | Item Name | Delivery | Pick Status | Order | Requested Quantity | Shipped Quantity | Deta |
|--------|-----------|----------|-------------|-------|--------------------|------------------|------|
| 74624 | AS54888 | 11274 | Staged | 52637 | 13 | | |
| 74625 | AS54888 | | Backordered | 52637 | 7 | | |

Below the table, there is an 'Actions' dropdown menu set to 'Cycle Count', a 'Go' button, and a 'Detail...' button. At the bottom, there are tabs for 'Lines/LPNs', 'Delivery', 'Path by Stop', and 'Path by Trip'.

5. If you enter a quantity of 20, the delivery will get completely backordered.
In both cases the reservation for the quantity that you see backordered, gets transferred to cycle count. This can be verified from the inventory Supply/Demand form.

There are two other ways to transfer backordered quantities to cycle count:

- There is a radio button titled Cycle Count All under the Ship Options in the Confirm Delivery dialog box. By selecting this at ship confirm, the reservations for all lines in the delivery will be transferred to cycle count and the entire delivery will be backordered.

- In the unspecified quantities drop down box there is a Cycle Count selection. By choosing cycle count from here, any line that does not have a shipped quantity specified will be backordered and the reservation transferred to cycle count.

Backorders and Over picking

After pick-confirm step, the Picked Quantity should always be greater or equal to the Requested Quantity.

If not enough quantity was picked, the delivery line will be split at Pick Confirm. The delivery line will be updated to Staged with the Picked Quantity and a new backordered delivery line will be created.

If a delivery line is fulfilled by the picked quantity and there is a pending quantity, a new delivery line pending over pick is created.

When either one of the picked quantity or the pending quantity is null the following rule is used to handle delivery lines:

- Backorder the delivery line if its picked quantity is null and the requested quantity is greater than zero.
- Delete the delivery line if its requested quantity is null and the picked quantity is greater than zero.

Line Status in the Oracle Order Management Suite

Topics covered in this chapter include the following:

- [Introduction](#) on page 22-2
- [Standard Line Status Flow \(also includes PTO\)](#) on page 22-2
- [ATO Line Status Flow](#) on page 22-11
- [Bill Only Line Status Flow](#) on page 22-13
- [Returns Line Status Flow](#) on page 22-13
- [Drop Ship Line Status Flow](#) on page 22-13
- [Order and Delivery Line Statuses](#) on page 22-13

Introduction

Oracle Order Management and Shipping Execution provide line statuses to best reflect the stage of the process for the order line and delivery line.

This chapter covers the flow and definitions of the order line and delivery line status from time of order entry to invoice.

Three tables are provided at the end of this chapter to serve as a quick reference for viewing Actions and associated line status within the Order Organizer, Sales Order form, and Shipping Transactions form.

Standard Line Status Flow (also includes PTO)

Oracle Order Management captures the order line status in the Sales Order Pad on the Line Items Main tab in the status field and in the Order Organizer on the Summary and Line tabs. Oracle Shipping Execution displays the delivery line status in the Shipping Transactions form on the Lines/LPN Main tab in the Line Status field. For a standard flow the statuses are:

Begin by placing the order in Order Management (OM):

- Entered (OM): Order is saved but not booked.
- Booked (OM): Order is booked.
- Scheduled (OM): A user can customize the Workflow to show the Scheduled status which indicates that the order line has been successfully scheduled by adding a customized activity after the Schedule activity. This activity will make a process order API call to update the status to Scheduled. When the ship line logic starts, the order line status changes to Awaiting Shipping.
- Awaiting Shipping (OM): Order is booked but lines not yet picked.
- Picked (OM): Order is booked and lines are picked.
- Open (OM): This status of a delivery on the Additional Line Information form indicates that none of the delivery lines associated with that delivery have been ship confirmed.

Navigating to Shipping Execution, the delivery line status flow is:

- Ready to Release (SE): Order line is booked and passed to Shipping Execution. It is now a delivery line which is eligible for Pick Release.
- Released to Warehouse (SE): Pick Release has started but not completed. Either no allocations were created or allocations have not been Pick Confirmed.

- **Backordered (SE):** The delivery line is pick released but no allocations were created or partial allocations occurred. As an example, if a delivery line has a quantity of 100, and at pick release only 25 are available for allocation, the original delivery line splits to create a new line (quantity of 75) for the unallocated portion with a status of Backordered. The quantity on the original delivery line changes to 25 to reflect the allocated portion with a status of Staged/Pick Confirmed.
- **Staged/Pick Confirmed (SE):** The delivery line is successfully pick released. It occurs after pick confirm to indicate subinventory transfer from source location to staging location is complete. Lines remain staged until they are ship confirmed.

Note: Both Backordered and Staged/Pick Confirmed statuses provide the ability to perform opportunistic cross-docking for warehouse organizations with Oracle Warehouse Management System (WMS) installed.

- **Shipped (SE):** This line status indicates that the delivery associated with the delivery lines is ship confirmed.
- **Interfaced (SE):** If delivery was sourced from Oracle OM: The delivery line is shipped and the OM Interface and Inventory Interface concurrent processes have completed. If delivery was sourced from an Oracle Application other than OM: The delivery line is shipped and the Inventory Interface concurrent process has completed.
- **In Transit (SE):** This delivery status indicates that the delivery associated with the line is ship confirmed and the pick up stop is closed.
- **Confirmed (SE):** This delivery status indicates that the delivery line is either shipped or backordered and the trip stops are open.

Navigate back to Order Management and query the order which results in OM pulling updated Pick Release information from Shipping Execution:

- **Picked (OM):** Pick release has completed normally (both allocation and pick confirm). The delivery associated with the delivery line(s) may have also been Ship Confirmed but the Delivery may not be set in transit and the Trip may not be closed.
- **Picked Partial (OM):** This status occurs when a delivery line is not allocated the full quantity during Pick Release and Ship Confirm has not occurred.

The delivery line splits during Ship Confirm and the information passes to Order Management through the Process Order API. The order line splits to reflect the changes that occurred during the Shipping process. As an example, a customer orders quantity 50. There are 20 on hand in inventory. The delivery line splits into two delivery lines and therefore represents two order lines in Order Management. The order line with quantity 20 has the status of Picked or Shipped depending on whether or not the delivery line is Ship Confirmed, the Delivery set in transit, and the Trip closed. The second order line with a quantity of 30 has status of Awaiting Shipping.

Shipping Execution passes the status information to Order Management when Ship Confirm is complete:

- **Shipped (OM):** The delivery associated with the line is Ship Confirmed. The Delivery status is set to In transit. This status appears at the line level as well as in the Additional Line Information at the Pick Status field.
- **Awaiting Fulfillment (OM):** Not all shippable lines in a fulfillment set or a configuration are fulfilled. The current line is waiting for other lines in the fulfillment set or the configuration to be fulfilled. This is a synchronization step within the Workflow process.
- **Fulfilled (OM):** All lines in a fulfillment set are fulfilled.

Fulfillment Sets are defined as a group of order lines that are fulfilled together. Items that are not shippable can be in fulfillment sets with shippable items, and then will not be fulfilled (and therefore invoiced) until the shippable items are fulfilled. A line can belong to either a ship set or an arrival set, but can belong to multiple fulfillment sets.
- **Interfaced to Receivables (OM):** Order Management has written information to the Receivables Interface tables. You should run Auto Invoice (from Receivables) to generate the Invoice.
- **Partially Interfaced to Receivables (OM):** This status is used in a PTO flow and indicates that the particular PTO item is required for revenue.
- **Closed (OM):** Closed indicates that the line is closed. It does not necessarily indicate that the line is interfaced to Accounts Receivable (AR) since you must close line activity in a no-bill flow.
- **Canceled (OM):** Indicates that the line is completely canceled. No further processing will occur for this line.

Scenario

The following scenario will emulate a Standard customer order from the first customer call to the invoice. The line status will assist the customer service agent on the Shipper's side to answer the questions of the Customer.

Entered Status (OM)

A customer calls and begins placing an order with the customer service representative. The customer is unclear whether or not the order is complete and indicates that he/she will call back to finish placing the order. The customer service representative saves the order to capture the current information but will not book the order because the customer has indicated that the order is not complete. Both the Order Header and the Order Lines associated with the customer call will have the status of Entered once the order is saved. The line on the order exists in the system and can be queried when the customer calls back to complete the order. The following window illustrates the Sales Order form with a status of Entered.

Figure 22–1 Sales Orders Window - Status: Entered

Sales Orders (52609) - Computer Service and Rentals

Order Information Line Items

Order Total: 11,075.00

Main Pricing Shipping Addresses Returns Services Others

| Line | Ordered Item | Unit Selling Price | Request Date | Schedule Ship Date | Status | On |
|------|--------------|--------------------|----------------------|--------------------|---------|----|
| 1.1 | AS54888 | 1,000.00 | 09-APR-2002 11:35:53 | | Entered | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Line Total: 10,000.00 Line Qty: 10 Service Total: 0.00

Description: Sentinel Standard Desktop

Actions Configurator Availability Book Order

Booked Status (OM)

The customer service representative receives a second call from the customer. The customer adds two additional lines to the order and indicates that the order is complete, so the customer service representative Books the order. The following window illustrates the Sales Order form with a status of Awaiting Shipping.

Figure 22–2 Sales Orders Window - Status: Awaiting Shipping

Sales Orders (52609) - Computer Service and Rentals

New

Order Information Line Items

Order Total 11,449.69

Main Pricing Shipping Addresses Returns Services Others

| Line | Ordered Item | Unit Selling Price | Request Date | Schedule Ship Date | Status | On |
|------|--------------|--------------------|----------------------|----------------------|------------------|----|
| 1.1 | AS54888 | 1,000.00 | 09-APR-2002 11:35:53 | 09-APR-2002 11:35:53 | Awaiting Shippin | |
| 2.1 | CPU 632 | 1.00 | 09-APR-2002 11:35:53 | 09-APR-2002 11:35:53 | Awaiting Shippin | |
| 3.1 | SB10299 | 32.00 | 09-APR-2002 11:35:53 | 09-APR-2002 11:35:53 | Awaiting Shippin | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Line Total 10,000.00 Line Qty 10 Service Total 0.00

Description Sentinel Standard Desktop

Actions Configurator Availability Book Order

The customer service representative then books the request by selecting Book Order. In the Order Information tabbed region, the order status is Booked, as shown in the following window.

Figure 22–3 Sales Orders Window, Main Tab - Status: Booked

Sales Orders (52609) - Computer Service and Rentals

Order Information Line Items

Main Others

| | | | |
|------------------|---------------------------|--------------|----------------------|
| Customer | Computer Service and I... | Order Number | 52609 |
| Customer Number | 1006 | Order Type | Order Only |
| Customer PO | | Date Ordered | 09-APR-2002 11:35:46 |
| Customer Contact | Brown, Gerry MR. | Price List | Corporate |
| Ship To Location | Chattanooga (OPS) | Salesperson | Green, Ms. Suzanne |
| | 301 Summit Hill Drive | Status | Booked |
| | | Currency | USD |
| | Chattanooga, TN, 37401, U | Subtotal | 10,069.00 |
| Bill To Location | Chattanooga (OPS) | Tax | 830.69 |
| | 301 Summit Hill Drive | Charges | 550.00 |
| | | Total | 11,449.69 |
| | Chattanooga, TN, 37401, U | | |

[]

Actions Configurator Availability Book Order

Ready to Release Status (SE)

Once the order has been booked, the information passes to Shipping Execution. Order lines appear as delivery lines. Initially, it is a one to one ratio of order line to delivery line.

The customer service agent calls the warehouse to ensure that the order that was just booked has appeared in Shipping Execution. The warehouse clerk queries the delivery lines by the order number provided by the customer service representative and indicates that the Line Status is Ready to Release indicating the delivery lines are eligible for Pick Release. The customer service representative has been assured that the booked order lines are visible in the Shipping Transactions form and are ready for the next step, Pick Release. The following window illustrates the Ready to Release status on the Lines/LPNs tab in the Shipping Transactions form.

Figure 22–4 Shipping Transactions Window - Status: Ready to release

The screenshot shows the 'Shipping Transactions' window. At the top, there is a 'Query' field with '<1>' and a 'Context' field with 'Line - 74458'. Below this is a table with columns: Detail, LPN, Item Name, Delivery, Line Status, Order, and Details Required. The first three rows of data are highlighted, and the 'Line Status' column for these rows is circled. The status for all three rows is 'Ready to release'. Below the table, there is an 'Actions' dropdown menu set to 'UPS Address Validation' and a 'Go' button. At the bottom, there are tabs for 'Lines/LPNs', 'Delivery', 'Path by Stop', and 'Path by Trip'.

| Detail | LPN | Item Name | Delivery | Line Status | Order | Details Required |
|--------|-----|-----------|----------|------------------|-------|--------------------------|
| 74458 | | AS54888 | | Ready to release | 52609 | <input type="checkbox"/> |
| 74459 | | CPU 632 | | Ready to release | 52609 | <input type="checkbox"/> |
| 74460 | | SB10299 | | Ready to release | 52609 | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |
| | | | | | | <input type="checkbox"/> |

Staged/Pick Confirmed and Released to Warehouse Statuses (SE)

The warehouse clerk launches Pick Release. Upon querying the delivery lines by order number, the warehouse clerk will see that the Pick Release status is: Staged/Pick Confirmed for those delivery lines that have received allocation and Pick Confirmed successfully and Released to Warehouse for delivery lines that require a manual Pick Confirm or have not been allocated. The following window illustrates the Staged/Pick Confirmed and Released to Warehouse statuses on the Lines/LPNs tab in the Shipping Transactions form.

Figure 22–5 Shipping Transactions Window - Status: Staged/Pick Confirmed and Released to Warehouse

The screenshot shows the 'Shipping Transactions' window. At the top, there is a 'Query' field with 'Query <2>' and a 'Context' field with 'Line - 74458'. Below this is a table with the following columns: Detail, LPN, Item Name, Order, Delivery, Line Status, Requested Quantity, and Shipper. The table contains three rows of data:

| Detail | LPN | Item Name | Order | Delivery | Line Status | Requested Quantity | Shipper |
|--------|-----|-----------|-------|----------|-----------------------|--------------------|---------|
| 74458 | | AS54888 | 52609 | 11229 | Staged/Pick Confirmed | 10 | |
| 74459 | | CPU 632 | 52609 | 11230 | Staged/Pick Confirmed | 5 | |
| 74460 | | SB10299 | 52609 | 11231 | Released to Warehouse | 2 | |

Below the table, there is an 'Actions' dropdown menu set to 'UPS Address Validation', a 'Go' button, and a 'Detail...' button. At the bottom, there are four tabs: 'Lines/LPNs', 'Delivery', 'Path by Stop', and 'Path by Trip'.

Picked and Awaiting Shipping Statuses (OM)

The customer who placed the order calls up and wants to know the status. The customer service representative queries up the order in the Order Organizer and finds that the status of the lines are Picked and Awaiting Shipping. The customer service representative is equipped to report that two of the order lines are processing smoothly as they have been picked from their source location and transferred to the staging location within the warehouse. The customer service representative can also inform the customer that the third order line has been released to the warehouse. The following window illustrates the Picked and Awaiting Shipping statuses on the Line Items Main tab in the Sales Order form.

Figure 22–6 Sales Orders Window - Status: Picked and Awaiting Shipping

Sales Orders (52609) - Computer Service and Rentals

Order Information

Line Items

Order Total

11,449.69

Main

Pricing

Shipping

Addresses

Returns

Services

Others

| Line | Ordered Item | Unit Selling Price | Request Date | Schedule Ship Date | Status | On |
|------|--------------|--------------------|----------------------|----------------------|------------------|----|
| 1.1 | AS54888 | 1,000.00 | 09-APR-2002 11:35:53 | 09-APR-2002 11:35:53 | Picked | |
| 2.1 | CPU 632 | 1.00 | 09-APR-2002 11:35:53 | 09-APR-2002 11:35:53 | Picked | |
| 3.1 | SB10299 | 32.00 | 09-APR-2002 11:35:53 | 09-APR-2002 11:35:53 | Awaiting Shippin | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Line Total

10,000.00

Line Qty

10

Service Total

0.00

DescriptionSentinel Standard Desktop

Actions

Configurator

Availability

Book Order

Closed and Picked Status (OM)

The warehouse clerk has just Ship Confirmed the delivery associated with the delivery lines corresponding to the customer's order. The warehouse clerk used the check boxes on the Ship Confirm form to automatically set the delivery in transit and close the trip. Order Management is updated through the Process Order API and the order lines that previously had the status of Picked will now show a status of Closed.

The customer calls back to check the status of the order, the customer service representative can tell the customer the date(s) that two of the order lines physically shipped from the warehouse. The customer service representative can also inform the customer that the third order line has been Picked, indicating that the next function is to ship the product. The following window illustrates the Closed and Picked statuses on the Line Items' Main tab in the Sales Order form.

Note: For a short time immediately following ship confirm, the order line status will show as 'Shipped' while OM interfaces with Receivables so that the customer can be invoiced. When the interface to Receivables is completed the line status in Order Sales form changes to Closed.

Figure 22–7 Sales Orders Window - Status: Closed and Picked

The screenshot shows the 'Sales Orders (52609) - Computer Service and Rentals' window. The 'Line Items' tab is active, displaying a table of order lines. The 'Order Total' is 11,449.69. The table has columns for Line, Ordered Item, Unit Selling Price, Request Date, Schedule Ship Date, Status, and On. The first three lines are: 1.1 (AS54888, 1,000.00, 09-APR-2002 11:35:53, 09-APR-2002 11:35:53, Closed), 2.1 (CPU 632, 1.00, 09-APR-2002 11:35:53, 09-APR-2002 11:35:53, Closed), and 3.1 (SB10299, 32.00, 09-APR-2002 11:35:53, 09-APR-2002 11:35:53, Picked). Below the table, the 'Line Total' is 10,000.00, 'Line Qty' is 10, and 'Service Total' is 0.00. The description is 'Sentinel Standard Desktop'. At the bottom are buttons for Actions, Configurator, Availability, and Book Order.

| Line | Ordered Item | Unit Selling Price | Request Date | Schedule Ship Date | Status | On |
|------|--------------|--------------------|----------------------|----------------------|--------|----|
| 1.1 | AS54888 | 1,000.00 | 09-APR-2002 11:35:53 | 09-APR-2002 11:35:53 | Closed | |
| 2.1 | CPU 632 | 1.00 | 09-APR-2002 11:35:53 | 09-APR-2002 11:35:53 | Closed | |
| 3.1 | SB10299 | 32.00 | 09-APR-2002 11:35:53 | 09-APR-2002 11:35:53 | Picked | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Line Total: 10,000.00 Line Qty: 10 Service Total: 0.00

Description: Sentinel Standard Desktop

Actions Configurator Availability Book Order

ATO Line Status Flow

A customer calls up Computer ABC and orders a laptop computer with a 56k modem and 64 mb of memory. This order will be processed as an Assemble to Order (ATO) item. The line status flow will be:

- Entered
- Booked

- Create Configuration Item Eligible:
 - Booked (item, options, option classes)
 - BOM and Routing Created (configuration item)
- Create Supply Order Eligible:
 - Booked (item)
 - BOM and Routing Created (configuration item)
 - Awaiting Fulfillment (options and option classes)
- Import Delivery Lines:
 - Booked (item)
 - Configuration Item Created: The configuration item, bills of material and routing have been created and the line is eligible for creating production orders (Production Eligible).
 - Production Open (configuration): A work order has been linked to the order line.
 - Awaiting Fulfillment (options and option classes)
- Release the job in WIP:
 - Production Partial (configuration): Production has been partially completed.
- Complete the job in WIP:
 - Production Complete (configuration): Entire production is complete.
- Pick Release
 - Ready to Release (SE)
 - Staged/Pick Confirmed (SE)
- Ship Confirm
 - Staged/Pick Confirmed (SE)
 - Fulfilled
- Invoice
 - Closed

Bill Only Line Status Flow

A customer calls up to place an order for Service that is a non-shippable item. The line status flow of this order will be:

- Entered
- Booked
- Invoiced
- Closed

Returns Line Status Flow

- Entered
- Booked
- Awaiting Return Disposition: Item requires inspection before Purchasing can create a receipt
- Awaiting Return: Purchasing creates a receipt of the item
- Returned: Item has been received and accepted

Drop Ship Line Status Flow

- Entered
- Booked
- Purchase Release: Item requires inspection before Purchasing can create a receipt
- Awaiting Receipt: Purchasing creates a receipt of the item
- Interfaced to Receivables
- Closed

Order and Delivery Line Statuses

These tables show the status of order lines and delivery lines after you perform certain actions. They show information for the Order Organizer, Sales Order form, Shipping Transactions form for deliveries and delivery lines, and Shipping Transactions form for stops and trips.

How to read the lines in the table:

Immediately after you autocreate a delivery, the status of all the entities will be as listed in the Create Trip column of the table.

- The Order Organizer Summary form will show the status of Booked
- The Order Organizer Lines form will show the status of Awaiting Shipping
- The Order Information Main tab of the sales order pad will show the status of Booked
- The Line Items tab of the sales order pad will show the status of Awaiting Shipping
- The Delivery tab of the Additional Line Information window will show the status of Open
- The Pick Status tab of the Additional Line Information window will show the status of Ready to Release
- The Trip Status tab of the Additional Line Information window will show the status of Open
- The Delivery Line Status of the Shipping Transactions form will show the status of Ready to Release
- The Delivery Status of the Shipping Transactions form will show the status of Open
- The Stop Status of the Shipping Transactions form will show the status of Open
- The Stop Activity Status at Origin and Destination on the Shipping Transactions form will show the status of N/A
- The Trip Status of the Shipping Transactions form will show the status of Open
- The Trip Activity of the Shipping Transactions form will show the status of N/A

Figure 22–8 Status: Order Organizer

| Entity | Summary | Lines |
|-------------------------|---------|-------------------|
| Actions | | |
| Enter Order | Entered | Entered |
| Book Order | Booked | Awaiting Shipping |
| Create Trip | Booked | Awaiting Shipping |
| Autocreate Delivery | Booked | Awaiting Shipping |
| Assign Delivery to Trip | Booked | Awaiting Shipping |
| Pick Release Delivery | Booked | Awaiting Shipping |
| Pick Release Delivery | Booked | Picked |
| Pack Line | Booked | Picked |
| Ship Confirm | Booked | Closed |
| Ship Confirm | Booked | Closed |
| Back Order Line Qty. | Booked | Awaiting Shipment |

- (1): Occurs when pick release has started but not completed. Either no allocations were created or allocations are not yet pick confirmed
- (2): Occurs when demand interface is turned on and interface has not started

Figure 22–9 Status: Sales Order Form

| Order Information Main Tab | Line Items Tab | Additional Line Information | | |
|----------------------------|-------------------|-----------------------------|---------------------------|-------------|
| | | Delivery Status | Pick Status | Trip Status |
| Entered | Entered | N/A | N/A | N/A |
| Booked | Awaiting Shipping | Open | Ready to Release | N/A |
| Booked | Awaiting Shipping | Open | Ready to Release | Open |
| Booked | Awaiting Shipping | Open | Ready to Release | Open |
| Booked | Awaiting Shipping | Open | Ready to Release | Open |
| Booked | Awaiting Shipping | Open | Released to Warehouse (1) | Open |
| Booked | Picked | Open | Staged/Pick Confirmed | Open |
| Booked | Picked | Open | Staged/Pick Confirmed | Open |
| Booked | Shipped (2) | Closed | Shipped | Closed |
| Booked | Closed | Closed | Shipped | Closed |
| Booked | Awaiting Shipping | Open | Backordered | N/A |

(1): Occurs when pick release has started but not completed. Either no allocations were created or allocations are not yet pick confirmed

(2): Occurs when demand interface is turned on and interface has not started

Figure 22–10 Status: Shipping Transactions Form

| Entity | Delivery Line | Delivery Status | Stop | | | Trip | |
|-------------------------|---------------------------|-----------------------|----------------|------------------|-------------------|-----------------------|-----------|
| Action | Line Status | | Status | Activity | | Status | Activity |
| | | | Org/Dest | Origin | Dest. | | |
| Order Entered | N/A | N/A | N/A | N/A | | N/A | N/A |
| Order Booked | Ready To Release | N/A | N/A | N/A | | N/A | N/A |
| Create Trip | N/A | N/A | N/A | N/A | | Open | N/A |
| Autocreate Delivery | Ready To Release | Open | N/A | N/A | | N/A | N/A |
| Assign Delivery to Trip | Ready To Release | Open | Open/Open | Awaiting Pick up | Awaiting Drop off | Open | Remaining |
| Pick Release Delivery | Released to Warehouse (1) | Open | Open/Open | Awaiting Pick up | Awaiting Drop off | Open | Remaining |
| Pick Release Delivery | Staged/Pick Confirmed | Open | Open/Open | Awaiting Pick up | Awaiting Drop off | Open | Remaining |
| Pack Line | Staged/Pick Confirmed | Open | Open/Open | Awaiting Pick up | Awaiting Drop off | Open | Remaining |
| Ship Confirm | Shipped | Confirmed | Open/Open | Awaiting Pick up | Awaiting Drop off | Open | Remaining |
| Back Order Line Qty. | Backordered | Confirmed | Open/Open | Awaiting Pick up | Awaiting Drop off | Open | Remaining |
| Close pick up Stop | Shipped | In Transit | Closed/Open | Picked Up | Awaiting Drop off | In Transit | On Board |
| Interface Order Mgt. | Interfaced | In Transit/ Closed | Closed/Open | Picked Up | Awaiting Drop off | In Transit/ Closed | On Board |
| Arrive Stop Trip | Shipped | In Transit | Closed/Arrived | Picked Up | Awaiting Drop off | In Transit | Unloading |
| Close Final Stop | Shipped | Closed | Closed/Closed | Picked Up | Dropped Off | Closed | Complete |

(1): Occurs when pick release has started but not completed. Either no allocations were created or allocations are not yet pick confirmed

(2): Occurs when demand interface is turned on and interface has not started

Using LPNs/Containers in Shipping Execution

Topics covered in this chapter include the following:

- [Overview](#) on page 23-2
- [Setup Steps](#) on page 23-2
- [Creating LPNs/Containers](#) on page 23-9
- [Packing Items into LPNs/Containers](#) on page 23-11
- [Additional Functionality](#) on page 23-16

Overview

The use of License Plate Numbers (LPNs) (containers) in Release 11*i* is flexible and easy to use. Whereas planning containers and actually assigning items to containers took place in two separate forms in Delivery-based Shipping in Release 11, all planning and assigning of items to containers takes place in one form, the Shipping Transactions form, in Release 11*i*.

There are a number of ways that you can pack items into LPNs/containers. Auto-Pack enables you to automatically pack items into specific types of containers. Auto-Pack Master enables you to automatically pack items into a specific LPN/container type and also automatically pack the LPN/container into another type of LPN/container. You can manually pack items into previously created containers. You can also pack items into previously created LPNs/containers using the Packing Workbench, that allows for packing equal quantities of lines into multiple containers and also for packing full quantities of lines into one LPN/container at a time.

Aside from the actual packing of line items into LPNs/containers, you can also:

- Create multiple LPNs/containers using a specified prefix, numeric string, and a suffix
- Assign serial numbers to LPNs/containers
- Define the order that you want to place items into LPNs/containers

Oracle Warehouse Management (WMS) handles other LPN/container functionality not available in Shipping Execution, including:

- Transactable Containers out of Inventory: Treat LPNs/containers as a subinventory/storage location within your warehouse
- Receiving Full Containers: Receive LPNs/containers from a shipment and automatically receive all items within the LPNs/containers into inventory
- Dimensions: Specify height, width, and length of LPNs/containers and items

Setup Steps

Before you can begin packing lines into LPNs/containers, you need to define the following setups, in the following sequence:

1. Weights and volumes for the items that will be involved in the packing process
See: *Oracle Inventory User's Guide*
2. Container types See: *Oracle Inventory User's Guide*

3. Vehicle types See: *Oracle Inventory User's Guide*
4. Container-load relationships
5. Shipping parameters
6. Optionally define default Master and Detail containers for customer items

Setup Container-Load Relationships for Containers and Items

You set up Container-Load Relationships if you intend to use auto-pack functionality. The relationship determines the product items that can be automatically packed into specified containers, and in what quantity.

To setup container-load relationships for containers and items:

1. Navigate to the Container-Item Relationships window. N: Order Management > Shipping > Setup > Container-Load Details

Note: The purpose of setting the container-load relationship is to establish a link between item and container type, or container and container. This allows the Auto-Pack and Auto-Pack Master functionality to perform automatic packing.

Figure 23–1 Container Item Relationships

| Container | | Load | | Maximum Quantity | Preferred Flag |
|--------------|---------------|----------|-----|------------------|-------------------------------------|
| Item | Type | Item | UOM | | |
| 01 PC CN | Large Contain | 01 PC KH | Ea | 400 | <input type="checkbox"/> |
| KH-Container | Large Contain | 01 PC KH | Ea | 400 | <input type="checkbox"/> |
| PC BOX | Box | 01 PC KH | Ea | 1 | <input checked="" type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |

Item Description
Container: Box for a Personal Computer
Load: Personal computer

2. Select the Container Item.
3. Select the Load Item.
4. Define the Maximum Quantity of the of the Load Item that should be placed in the Container Item.

Note: You can specify container-item relationships or container-container relationships.

Continue creating container-load relationships for all containers and items you plan to use. Container-load relationships are used for packing whenever the Percent Fill Basis Shipping Parameter is set to Quantity and also when you use the Auto-Pack and Auto-Pack Master features to pack items into containers.

5. Select the Preferred Flag toggle to use the container-load relationship as the preferred relationship between items and containers (and containers and containers).

You could potentially have multiple load-relationships between items and different containers. When you select the Preferred Flag toggle for a container-load relationship, Auto-Pack and Auto-Pack Master will use the Preferred relationship when packing that item. For example, if you have two container-load relationships for Item A—one with Container A, which is the preferred LPN/container, and one with Container B—the maximum load defined in the relationship with Container A will be used when you select Auto-Pack or Auto-Pack Master for packing Item A. You must set the Preferred Flag for one of the Container-Load Relationships you have for an item in order to use Auto-Pack or Auto-Pack Master for that item. If you do not set the Preferred Flag for one of the relationships for an item, you will receive an error message.

Note: You must define container-load relationships for each warehouse.

6. Save your work.

Define Shipping Parameters

To define shipping parameters

1. Navigate to the Shipping Parameters window. N: Order Management > Shipping > Setup > Shipping Parameters.

Figure 23–2 Shipping Parameters

The screenshot shows a window titled "Shipping Parameters (V1)" with four tabs: "General", "Pick Release", "Shipping Transaction", and "Delivery Grouping". The "General" tab is active. It contains the following fields and controls:

- Weight UOM Class: **Weight**
- Volume UOM Class: **Volume**
- Percent Fill Basis: **Quantity** (dropdown menu)
- Secondary Export Country Screening: **IN**
- Auto Select Carrier: ☒

There is also a small icon of a container with a plus sign in the bottom right corner of the main area.

2. Select the Percent Fill Basis that you want to be used to determine whether or not containers have met their minimum fill percentage.

Select from Quantity, Weight, or Volume. For example, if you define a container-load relationship in which CONTAINER A can hold quantity 5 of ITEM A, you select Quantity in this field, and you define the minimum fill percentage for CONTAINER A to be 75 percent, you must have at least quantity 4 of ITEM A in CONTAINER A to meet your minimum fill percentage. If you select Weight or Volume, the Percent Fill is calculated based on the weight or volume (physical attributes) you have defined for your items.

Figure 23–3 Shipping Parameters: Shipping Transaction

The screenshot shows the 'Shipping Parameters (V1)' window with the 'Shipping Transaction' tab selected. The window has four tabs: 'General', 'Pick Release', 'Shipping Transaction', and 'Delivery Grouping'. The 'Shipping Transaction' tab contains the following settings:

- Default Delivery Document Set: **Ship Confirm Documents**
- Weight / Volume Calculation: **Automatic**
- Enforce Packing in Containers: **Yes**
- Container Inventory Control: **Optional**
- Goods Dispatched Account: **01-740-7610-0000-000**
- Freight Class Category Set: (empty field)
- Commodity Code Category Set: (empty field)

Below these fields is a section titled 'Across All Organizations' containing three checkboxes:

- Enforce Ship Method: ☐
- Defer Interface: ☐
- Allow Future Ship Date: ☒

- From the Shipping Transaction tab, set the Enforce Packing in Containers display list to Yes if you want Shipping Execution to display an error message during Ship Confirm when you try to ship a delivery that contains unpacked delivery lines.

Note: You must define shipping parameters for each warehouse.

- Save your work.

See:

Oracle Shipping Execution User's Guide

Oracle Inventory User's Guide

[Defining Shipping Parameters](#) on page 4-29

Define Default Containers for Customer Items

Note: This section does not apply to standard items. Use the information in this section if you are using customer items.

To define default containers for customer items:

1. Navigate to the Customer Items Summary window. N: Order Management > Inventory > Items > Customer Items > Customer Items.

Figure 23–4 Customer Items Summary

The screenshot shows the 'Customer Items Summary (V1)' window with the 'Containers' tab selected. The window has a title bar with standard OS controls. Below the title bar are four tabs: 'Commodity', 'Container' (selected), 'Model, Departure Planning', and 'Demand Tolerances, Active'. The main area is divided into sections. At the top, there's a 'Level' section with 'Address Category', 'Address', and 'Customer' labels. Below this is a table with columns: 'Customer Name', 'Customer Item', 'Master', and 'Detail'. The first row is populated with 'Computer Service and' under Customer Name, 'HP54888' under Customer Item, 'Pallet01' under Master, and 'PC BOX' under Detail. To the right of the table are radio buttons for 'Mir'. Below the table is a horizontal scrollbar. At the bottom of the window, there are four text input fields labeled 'Address Category', 'Address', and 'Customer Item Desc'. At the very bottom are five buttons: 'Set Defaults...', 'Cross Reference', 'Automotive', 'New', and 'Open'.

2. Query your customer item and define default Master and Detail containers in the Containers tab.

These containers will default in the Master and Detail fields in the Shipping Transactions form when you query the item associated with your customer item. When you Auto-Pack, these containers will be used to pack the items. If a

container-load relationship is defined for the item and the detail LPN/container (and for the detail and master containers) and the Percent Fill Basis is set to Quantity, Shipping Execution will use the Container-Load Relationship to determine the required number of containers. If no relationship is defined, the weight and volume of the items and the maximum load weight or volume for the LPN/container will determine how the items are packed into containers (and containers into containers.)

3. Save your work.

Creating LPNs/Containers

You can automatically or manually create containers. Containers are created automatically when using the Auto-Pack and Auto-Pack Master functionality by using a defined Container-Load Relationship between a type of LPN/container and an item. Shipping Execution uses the container type, the item, and the defined maximum quantity of the item that will fit in the LPN/container and automatically create the required number of containers with automatically generated names. However, to manually pack items into LPNs/containers using the Pack and Packing Workbench functionality, you must manually create LPNs/containers.

To manually create LPNs:

1. Navigate to the Create LPNs window. N: Shipping > Transactions > Lines and LPNs > Query your line > from the Action menu, select Create LPNs.

Figure 23–5 Create LPNs Window

The screenshot shows a 'Create LPNs' dialog box. It has a title bar with the text 'Create LPNs' and a close button. The main area contains the following fields:

- Organization:** A text field with a small dropdown arrow on the right.
- Container Item:** A text field.
- Item Description:** A text field.
- Count:** A text field containing the number '1'.
- Name Generation:** A section containing four more text fields:
 - Name Prefix:**
 - Base Number:**
 - Pad to Width:**
 - Name Suffix:**

At the bottom of the dialog are two buttons: 'OK' and 'Cancel'.

2. Select the Organization for which you want to create LPNs/containers.
3. Select the Container Item.
4. Enter a Count (the total number of containers you want to create.)
5. In the Name Generation region, enter the Name Prefix that you want to be used in the name of the LPN/container.
6. Enter the Base Number (starting number) for the string of containers you are creating.
7. Enter the Pad to Width of the numeric string (numeric portion) used in naming the containers.

The Pad to Width determines how many digits appear in the numeric value for the LPN name.
8. Enter the Name Suffix that will be used in the naming of the containers.

For example, if you specify PC as the Name Prefix, 1 as the Base Number, 3 as the Pad to Width, BX as the Name Suffix, and you are creating 5 containers, then the resulting created containers would be named: PC001BX, PC002BX, PC003BX, PC004BX, and PC005BX. If you set the Pad to Width as 4, you would get PC0001BX, PC0002BX, PC0003BX, PC0004BX, and PC0005BX.

Once created, you can select the containers from a List of Values that displays when you choose the Pack option in the Shipping Transactions form. You can also query up existing (created) containers using the Query Manager (via the LPNs or Lines and LPNs options).

Packing Items into LPNs/Containers

You can pack items into LPNs/containers in the following ways:

- You can manually pack items into an existing LPN/container (Pack option)
- You can automatically pack an item into a LPN/container (Auto-Pack)
- You can automatically pack an item into a LPN/container, and pack that LPN/container into another (parent/Master) LPN/container (Auto-Pack Master)
- You can automatically pack equal quantities of multiple items into multiple LPNs/containers (Equal Packing in the Packing Workbench)
- You can automatically pack line items into a LPN/container until you fill the LPN/container or use all of the items, and then continue packing the next line into the next LPN/container (Full Packing in the Packing Workbench)

Manual Packing

Manual Packing involves packing items into LPNs/containers that have already been created using the Create LPN action in the Lines and LPNs tab in the Shipping Transactions form. Manual Packing can be accomplished by selecting the line (in the Lines and LPNs tab in the Shipping Transactions form) that you want to pack into the LPN/container and choosing the Pack option from the Actions list, which displays a List of Values containing previously created LPNs/containers.

Manual Packing does not use a Container-Load Relationship when packing, but the weight, volume, and percent fill (based on the setting for the Percent Fill Basis Shipping Parameter) are calculated to determine whether or not the items will fit into the LPN/container. A warning message will display if the total weight and volume of the items is greater than the available capacity of the LPN/container. A warning will also display if the minimum fill percentage is not attained.

You might want to use this method of packing if you have several items (maybe pencils, paper clips, and pads of paper) that are heading to the same customer and the customer does not care about what type of LPN/container is used. So, you could query up your delivery lines in the Shipping Transactions form (using the

Query Manager), multi-select your lines, choose Pack from the Actions list, and then select the LPN/container you have created from the resulting List of Values.

Auto-Packing Standard Items

Auto-Pack is an option on the Actions list in the Lines and LPNs tab in the Shipping Transactions form that will automatically calculate and create the number of LPNs/containers required to pack all of the items and then pack all of the items into the created LPNs/containers. Auto-Pack Master behaves identically to Auto-Pack except that it goes one step further and packs the created detail LPNs/containers into one or more parent (master) LPN(s)/container(s). If you have multiple Container-Load Relationships set up for the same item (with different LPNs/containers), Auto-Pack will look at the Preferred toggle on the Container-Item Relationships window to determine which relationship to use. You must define one of the Container-Load Relationships for your items as the Preferred relationship. If you do not toggle on the Preferred Flag for one of your Container-Load Relationships, you will receive an error when you try to use Auto-Pack or Auto-Pack Master for that item.

For any other type of item you are Auto-Packing, you must have a Container-Load Relationship set up. If you try to Auto-Pack items into a LPN/container and no Container-Load Relationship is established, you will receive an error message. Auto-Pack will use the Container-Load Relationship to determine the type of LPN/container needed to pack the item. The setting of the Percent Fill Basis Shipping Parameter is used to determine how many containers are going to be needed to pack all of the items. If the Percent Fill Basis Shipping Parameter is set to Quantity, the Maximum Quantity defined for the Container-Load Relationship (being used to determine the type of LPN/container) will be used to calculate the necessary number of LPNs/containers. If the Percent Fill Basis is set to Weight or Volume, the physical attributes (weight or volume) that are defined for the item and LPN/container are used to calculate the total number of required LPNs/containers. Once the type of LPN/container is determined and the required number of LPNs/containers are calculated, Auto-Pack/Auto-Pack Master creates those LPNs/containers and systematically packs the items into the LPNs/containers. For example, let's say you had a Container-Load Relationship set up so that 6 of Item A fit into Container A and Percent Fill Basis was set to Quantity. If you have a delivery line with a quantity of 12 of Item A and you run Auto-Pack, Shipping Execution will create two LPNs/containers, split the line into two lines with a requested quantity of 6, and pack the first split line into the first container and pack the second split line into the second LPN/container.

Auto-Pack Master packs not only an item into a LPN/container (Detail Container in this scenario), but it will also pack the Detail Container into a Master Container. For example, let's say you had a delivery line with a quantity of 12 of Item A and a Container-Load Relationship set up so that 6 of Item A will fit into Container A and 2 of Container A will fit into Container B (and Percent Fill Basis is set to Quantity). If you run Auto-Pack Master, the line will be split into 2 lines of 6, the first line will be packed into the first LPN/container, the second line will be packed into the second LPN/container, and the two Detail Containers (2 Container As) will be packed into Container B.

Auto-Packing Customer Items

There are two different ways to specify the type of LPN/container to be used when using Auto-Pack or Auto-Pack Master: specify a Master and/or Detail LPN/container for a customer item, or set up a Container-Load Relationship between the item(s) and LPN(s)/container(s). If you are Auto-Packing a customer item with a pre-defined Master and/or Detail association (set up in the Customer Item Summary window), then Auto-Pack will use those container types to create the LPNs/containers required and pack the customer item. To determine how many LPNs/containers are needed, Auto-Pack will use the Percent Fill Basis Shipping Parameter. If Percent Fill Basis is set to Quantity, Auto-Pack will look for Container-Load Relationships set up for the item and the Detail Container, as well as for the Detail Container and the Master Container. If these Container-Load Relationships are not set up, then Auto-Pack will use the weights and volumes for the item and the available capacities defined for the LPNs/containers.

For example, let's say your customer preferred that you pack the monitors that you make into a cardboard box (one in each box) and that you pack twelve cardboard boxes (containing the monitors) on a pallet for shipment. You can assign the specific cardboard box (type of container) as the detail LPN/container for the customer item and the pallet as the Master Container for the customer item in the Customer Item Summary window. When the order is booked and the line is pulled into (imported into) Shipping Execution and viewed in the Lines and LPNs tab in the Shipping Transactions form, the cardboard box and the pallet container types will default into the Master and Detail fields for the line. When you run Auto-Pack for this line and Percent Fill Basis set to Quantity, Auto-Pack uses the Container-Load Relationship set up for the item and the LPN/container. If no Container-Load Relationship is set up, Auto-Pack uses the weight and volume and LPN/container capacity for the item and LPN/container to calculate the required number of LPNs/containers. Once the number of LPNs/containers is calculated, the LPNs/containers are created and the items are packed into the LPNs/containers. Then, the total number of Master LPNs/containers are calculated based on the number of Detail containers

created, and the appropriate number of Detail LPNs/containers are systematically placed into the appropriate Master LPN/container. So, if you set up a Container-Load Relationship where a maximum of 1 monitor fit in 1 cardboard box and 12 cardboard boxes fit on one pallet and your customer ordered 24 monitors, the 24 monitors would be placed in 24 cardboard boxes (1 in each box) and then 12 cardboard boxes would be placed on each of the 2 pallets that were created.

Packing Workbench

The Packing Workbench allows for two different methods of packing:

1. Equal Packing
2. Full Packing

As the names suggest, Equal Packing involves packing equal amounts of items from one or many lines into one or many LPNs/containers. Full Packing involves packing the entire quantity of one delivery line into one or many LPNs/containers, and then packing the entire quantity of the next delivery line into one or many LPNs/containers. If the entire quantity of the first line does not fill a LPN/container, items from the next delivery line will be added to the LPN/container with available space until it is filled.

To use the Packing Workbench, you must select the delivery lines and the LPNs/containers in the Lines and LPNs tab in the Shipping Transactions form that you want to pack and then select Packing Workbench from the Actions list. You must have queried up lines and previously created LPNs/containers or you must have queried up lines and then created new LPNs/containers. When selecting lines in the Shipping Transactions form to use in the Packing Workbench, you can use the Packing Calculator (accessed by clicking on the bar on the far right hand side of the Shipping Transactions Form or by selecting Packing Calculator from the Tools menu) to determine whether or not the lines might be able to fit in the LPNs/containers that you have selected. The Available Capacity region shows how much weight and volume the LPNs/containers that you have selected can hold and the Item Total region shows the total weight and volume for all of the lines you have selected.

Once you have selected your lines and LPNs/containers and have selected Packing Workbench from the Actions list, the Packing Workbench displays containing your selected LPNs/containers on one tab and your selected lines on the other tab. You can see the total Available Capacity for the LPNs/containers and the weights and volumes for the items on the left side of the Packing Workbench. By default, you will notice the Pack toggle next to your lines and LPNs/containers is selected. If you turn the Pack toggle off for a LPN/container or line, then that line or

LPN/container will not be used for packing and, hence, the Available Capacity and Item Total regions will be updated accordingly.

Equal Packing

The first method of packing within the Packing Workbench is Equal Packing. The best way to explain Equal Packing is by giving an example. Let's say your customer ordered 10 computer monitors and 10 keyboards. The order would consist of two lines, one for 10 monitors and one for 10 keyboards. Once the order is booked, you can query your lines in the Shipping Transactions form. If you wanted to pack one of each item into a LPN/container, you would create 10 LPNs/containers (using a container type that was large enough to hold one of each item.) You would then select your two lines and your ten LPNs/containers and pull them into the Packing Workbench. Once in the Packing Workbench, select the Equal Packing Method and choose the Pack button. The Packing Workbench will split the two lines into ten lines for each item and pack 1 monitor and 1 keyboard into each LPN/container. So you will end up with 10 LPNs/containers that have 1 monitor and 1 keyboard in each.

There is a potential drawback to using Equal Packing. When you use Equal Packing, lines are split evenly so that equal quantities will be packed into the selected LPNs/containers. Container-Load Relationships and weight and volume limitations within containers are not used when packing the items equally into LPNs/containers. In other words, the lines are split and packed into the LPNs/containers prior to performing weight and volume validations. Validations based on weight and volume do take place to determine whether or not the LPNs/containers are over-packed (weight or volume exceeds maximum weight or volume for a LPN/container), resulting in the display of Warning messages, but not until after the lines are split. Once the lines are split, you cannot return the lines to their original status (if one line for quantity of 6 was split into two lines for quantity of 3, you cannot return the two lines into one line for quantity of 6). So, if you split the lines and find out that you really want to pack them differently, you will have to pack the resulting split lines rather than the initial pre-split lines.

Full Packing

Full Packing involves taking items in a delivery line and packing them completely into one LPN/container, then taking the next line and packing its entire quantity. If the items in the first delivery line do not completely fill the first LPN/container, the items in the second delivery line will be added to the first LPN/container until it is filled. If all of the items in the second delivery line were not used to fill the first

LPN/container, then the remaining items are packed into the second LPN/container.

For example, let's say you had two delivery lines, one consisting of 10 of Item A and one consisting of 10 of Item B, and you wanted to pack them into three LPNs/containers. If the Percent Fill Basis Shipping Parameter was set to Quantity, the Packing Workbench would use the Container-Load Relationship set up to determine the maximum number of items that could fit in the first LPN/container. If Percent Fill Basis was set to Weight or Volume, the Packing Workbench would use the weight and volume defined for the item and the maximum load weight or volume defined for the LPN/container to calculate the total number of items that could fit in the first LPN/container. Let's say Percent Fill Basis is set to Quantity and a Container-Load Relationship is established that says that 5 of Item A will fit in the first LPN/container. Five of Item A will be placed in the first LPN/container, then the Packing Workbench calculates the total number of Item As that will fit into the second LPN/container. If a Container-Load Relationship is set up so that 10 of Item A will fit in the second LPN/container, the Packing Workbench will place the remaining 5 of Item A in the second LPN/container. The Packing Workbench then calculates that the LPN/container is only fifty percent filled, so the Packing Workbench will look at a Container-Load Relationship set up for Item B and the second LPN/container. If the Container-Load Relationship for Item B and the second LPN/container was defined so that 4 of Item B will fit, the Packing Workbench takes fifty percent of the total defined Container-Load Relationship (2 of Item B) and packs that quantity into the second LPN/container. This leaves us with 8 of Item B. The Packing Workbench then looks at the Container-Load Relationship between Item B and the third LPN/container. If 10 of Item B fits into the third LPN/container, the Packing Workbench will pack the remaining 8 in the third LPN/container.

Additional Functionality

Assigning Serial Numbers to LPNs/Containers

You can assign serial numbers to your LPNs/containers. When you create your LPNs/containers in the Master Items window, you can define your LPNs/containers as requiring serial numbers by navigating to the Inventory tab and choosing At Sales Order Issue in the Generation field in the Serial region. Once you create your LPNs/containers in the Shipping Transactions form, you can assign serial numbers to your LPNs/containers. Since LPNs/containers are not transacted items (LPNs/containers are not stored in inventory), you are not required to enter a serial number even though the LPN/container is serialized.

If you assign a LPN/container (Detail Container) to another LPN/container (Master Container), the serial number of the Master Container will automatically default into the Master Serial Number field for the Detail Container. If you change the serial number for the Master Container, which will automatically change the Master Serial Number for the Master Container, Shipping Execution will automatically update the Master Serial Numbers for all Detail Containers assigned to that Master Container.

Generating a Loading Sequence for Deliveries/Containers

You must have imported order lines with a defined Production Sequence Number or you must have entered a Customer Production Sequence Number in Others tab in the Lines region of the Sales Orders window. Generating a loading sequence is optional. You would only generate a loading sequence when you wanted to place items in a LPN/container or on a delivery in a certain order. For example, if an automotive manufacturer's assembly line needed specific items in a certain order, they might want to have items shipped to them placed in a certain order in the LPN/container or delivery so that they could remove the items in the most efficient order for their assembly line. The loading sequence is printed on the Vehicle Load Sheet Detail report.

Navigate to the Shipping Transactions form. Choose the Delivery tab (a delivery must exist), then click the Details button. In the 'Loading Lines' field, select a loading pattern. You can select from Forward (1, 2, 3, 4), Reverse (4, 3, 2, 1), Forward-Inverted (2, 1, 4, 3), and Reverse-Inverted (3, 4, 1, 2).

Loading sequence determines the order in which the delivery lines are placed in the LPN/container or the delivery, depending on whether or not you have defined a Detail Container for the delivery line. If you have specified a Detail Container, the loading sequence determines the order in which the delivery line is placed into the LPN/container. If you have specified a Master Container or if you have not specified any LPN/container for the delivery line, the loading sequence will determine the order in which the delivery line will be placed in the vehicle.

Select Generate Loading Sequence from the Actions list.

If you have ITEM A with a Production Sequence Number of 1 and ITEM B with a Production Sequence Number of 2 and you select Reverse as your Lines Loading order, ITEM B would have a Loading Order Number of 1 and ITEM A would have a Loading Order Number of 2 (ITEM B would be loaded first and ITEM A would be loaded second).

If a Customer Production Sequence Number is not assigned to the delivery line, you can enter a Loading Sequence to determine the order in which the delivery line will be loaded into the LPN/container or delivery.

Topics covered in this chapter include the following:

- [Overview](#) on page 24-2
- [Feature Functions and Basic Instruction - What is it? How is it used?](#) on page 24-3
- [Tools/Techniques of Feature - API's, Workflow](#) on page 24-5
- [To Implement Invoicing](#) on page 24-6
- [Troubleshooting](#) on page 24-8

Overview

Invoicing in Oracle Order Management is the process by which data from Orders and Returns is communicated to Oracle Receivables to create invoices, credit memos and credits on account, recognize revenue and manage sales credits.

Invoicing Integration has been implemented as a workflow activity in Order Management. When it executes, it transfers fulfilled item information including quantities, selling prices, payment terms, and transaction dates to Oracle Receivables, which processes invoices for customers and accounts for revenue. Additionally, you can process credit memos and credits on accounts created from returns using this process. Upon completion of the Invoicing workflow activity, you must submit AutoInvoice from Oracle Receivables to import the invoice and credit data into Oracle Receivables. The Invoicing Integration workflow activity can be part of the Order Header workflow, if you want the entire order to interface to Receivables at the same time, or part of the Order Line workflow, which will interface each line or set of lines as they become eligible.

See

Oracle Order Management User's Guide

Oracle Manufacturing APIs and Open Interfaces Manual, Release 11i.

Feature Functions and Basic Instruction - What is it? How is it used?

The Invoicing workflow activity loads the Receivables Autoinvoice Interface tables with data from the order lines, price adjustments, sales credits and charges. Types of data interfaced are product information such as ordered item identifier, description, inventory item identifier, quantities and prices, currency, and payment terms. It can be run from the line workflow or the header workflow, depending on whether you want to invoice the lines as they are shipped or wait for the whole order to invoice together.

Invoicing and Fulfillment

Order Management seeded workflows are designed so order lines are eligible to be Invoice Interfaced once they have completed the fulfillment workflow activity. The fulfillment concept, along with the use of fulfillment sets, enables you to group lines together for invoicing purposes. Typically, for shippable lines, shipping completes fulfillment. For non-shippable lines, booking completes fulfillment. If you want to hold up invoicing of a non-shippable line until an associated shippable line is shipped, put those lines together into a fulfillment set. None of the lines in the set progress past fulfillment to invoicing until all lines in the set are fulfilled.

Discounts

In Order Management, you have the option to send items and prices to Receivables net of any price adjustments or to send the list price and then send separate adjustment lines for each discount. This is controlled by the profile option OM: Show Discount Details on Invoice. If you choose to show discounts, they are sent as regular invoice lines to Receivables with a negative price, and are accounted for like the item to which they belong. The Description field for the discount lines is the name of the discount. This feature provides visibility to discounts for printing on invoices, but does not provide separate accounting for discounts.

Freight and Other Charges

In Order Management, all freight and special charges such as insurance, handling, and export charges are passed individually to Oracle Receivables as invoice header level charges. There is no grouping done by the Invoicing Activity. However, Oracle Receivables will consolidate all the freight charge lines into one line for accounting and printing on the invoice. Order Management passes the details to Receivables to support differing charge accounting and printing in the future, once Receivables supports such functionality.

Over and Under Shipments

Overshipments are invoiced based on the setting of the OM: Overshipment Invoice Basis profile option and also corresponding attributes on the Customer and bill-to site. Values for this attribute are Ordered or Shipped. If this value is Ordered, the ordered quantity is invoiced, even if a larger amount was actually shipped. If this value is Shipped, the actual shipped quantity is used for billing. Undershipments are always invoiced as the amount shipped. Please note that you must set over and under shipment tolerances to be able to overship or automatically close a line on an undershipment. You can set site-level shipping tolerances via a profile option. You can also specify exceptions for a customer, bill-to site, item or customer/item combination using the Customer Standard form, Master Items form, and an Order Management form for customer/item.

Credit Cards

Credit card information is sent to Receivables if the Payment Type on the order is Credit Card. Data interfaced includes: iPayment order number (transaction id), approval code, bank account id, credit card holder name, primary payment method. This information will allow Receivables to do the necessary capture functions for the credit card.

Notes/Attachments

It is possible in Order Management to set up note categories to indicate you want the note to print on the Invoice. These notes will not actually print on the standard Receivables Invoice. If you choose to customize the printing of the Invoice, you can fetch those notes flagged for the invoice and print them in your print procedure.

Viewing the Invoice

Once a line or an order has invoiced, you can view the invoice summary information from Order Management. From the Sales Order Organizer, select 'Invoices/Credit Memos in Additional Line Information or in Additional Order Information to see invoice data. Data available to be viewed include Invoice Number, Batch Source, invoice date, amount and balance. Select the Invoice Details button to view all the details about the invoice selected in the Receivables Transaction Summary window.

Tools/Techniques of Feature - API's, Workflow

When you set up your order and line workflows for invoicing, choose carefully which line and header workflows you use together to be sure you match the correct Invoicing Activities.

If you intend to use header level Invoicing, be sure to use line level workflows that have coordination points with the header activity. The seeded Oracle Workflows are named to make that easy to do. For example, there is a header workflow called Order Flow – Generic with Header Level Invoice Interface – you would use it with line flows such as Line Flow – Generic with Header Level Invoice Interface.

Figure 24–1 Order Flow with Header Level Invoicing

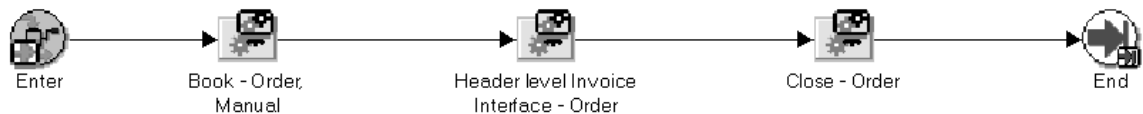
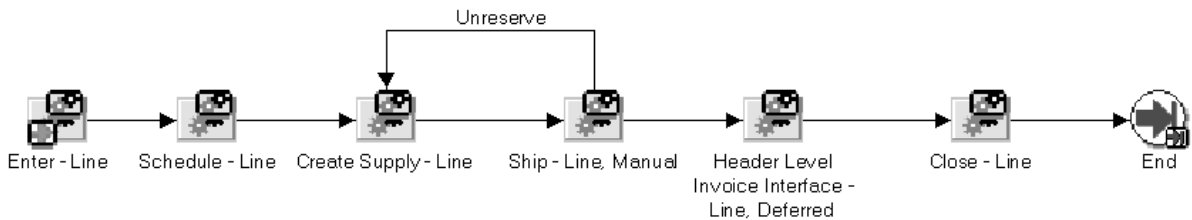


Figure 24–2 Line Flow with Header Level Invoicing



Similarly, if you want to use line level Invoicing, use a header workflow that does not have invoicing, and use line flows that do not wait for coordination with the header regarding Invoicing.

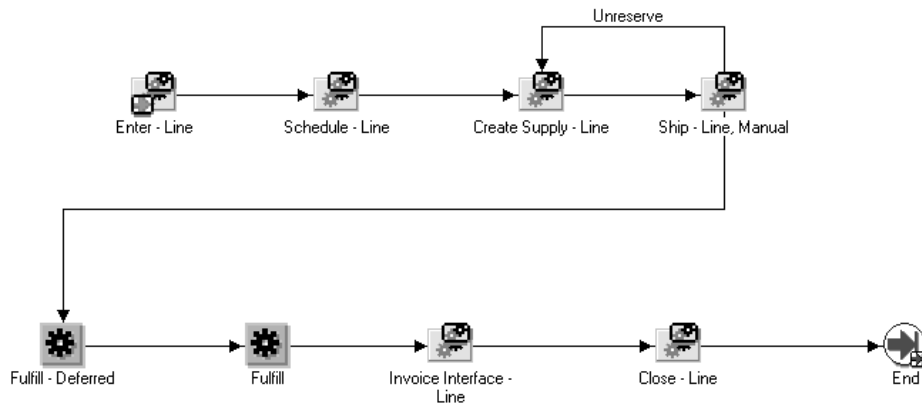
See

The *Oracle Order Management User's Guide* has more information on the Invoicing Workflow Activity processes.

Figure 24–3 Order Flow with Line Level Invoicing



Figure 24–4 Figure 4: Line Flow with Line Level Invoicing



To Implement Invoicing

Profile Options

See

[Profile Options](#)

Oracle Order Management User's Guide

Item Attributes

The items you expect to invoice must be setup with the Invoiceable and the Invoice Enabled item attributes turned on. You can also specify a GL account which can be used for building the revenue account in autoAccounting on this tab of the item setup form.

Accounting Rules and Invoicing Rules

These are set up in Oracle Receivables and refer to the way revenue is recognized and in which accounting period. There are several seeded rules which suit most applications. In Order Management, you can specify an Accounting and an Invoicing Rule when you define an order type or line type, and also when you define agreements. When the Invoice Interface workflow activity runs, the data to pass to Receivables is obtained based on tables documented in the *Oracle Manufacturing APIs and Open Interfaces Manual, Release 11i* chapter on Interfacing Oracle Order Management with Oracle Receivables and Invoicing.

Receivables Transaction Types

There are various transaction types seeded in Receivables, such as Invoice or Credit Memo. These definitions control how the different AR transactions are processed, and they can specify various GL accounts available for use during autoAccounting. You must attach a Receivables Transaction Type to your Order Management Order Types and Lines Types when you define them in order to make Autoinvoice import your orders.

Receivables Invoice Sources

Also called Transaction Sources or Batch Sources – these entities enable you to specify a default transaction type assigned to a batch and determine whether Receivables will automatically number your transactions and batches. To use for OM, create at least one of these with a type = automatic. For more information on Invoice Sources and uses, see *Oracle Manufacturing APIs and Open Interfaces Manual, Release 11i* chapter on Interfacing Oracle Order Management with Oracle Receivables and Invoicing.

Auto-accounting

Controls the how the accounting is derived for lines that are processed by the Autoinvoice Import process. See the *Oracle Receivables User's Guide* for set up details.

Order Management Transaction Types

When you define your Order Management order types and line types, you can specify various information that affects the Invoicing Activity. Enter this information on the Finance tab of the Define Transaction Type form. Pick a Receivables Transaction Type and Invoice Source. You may choose Accounting and Invoicing Rules, Credit Method for Accounting and Installment.

Invoice Grouping Rules

These rules are setup in Oracle Receivables and let you specify which attributes must be identical on the same invoice. If the chosen attributes are different for different lines, then separate invoices will be generated.

Invoice Line Ordering Rules

These rules are also setup in Receivables and let you specify the sequence of printing lines within an invoice.

Troubleshooting

If your order does not appear in the Sales Order list of values in the Autoinvoice Import request submission window, check the workflow status of your lines and verify that the Invoice Interface activity status is COMPLETE.

If your lines show Invoice Interface activity status of INCOMPLETE, use the Process Messages window to find the messages logged by the Invoice Interface for these lines. Typically this process errors out due to incomplete or missing data on the order line, data such as batch source name, Receivables transaction type, credit memo transaction type or service start date and end date for service lines.

If your invoices are not getting created when you run Autoinvoice Import, be sure to examine the log and report resulting from the concurrent job. It points out the reasons why data is not processed. Usually the problem stems from auto-accounting rules that have or have not been set up. For example, verify that there are General Ledger numbers entered for the revenue accounts for the salespeople on your order. Usually you can correct the setup and rerun Autoinvoice Import. The corrected sales order data will process correctly and your invoices will be created.

Data Model Overview

Topics covered in this chapter include the following:

- [Overview](#) on page 25-2
- [Key Order Management Modules](#) on page 25-6

Overview

The Sales Order is modeled as a business object comprised of the following entities:

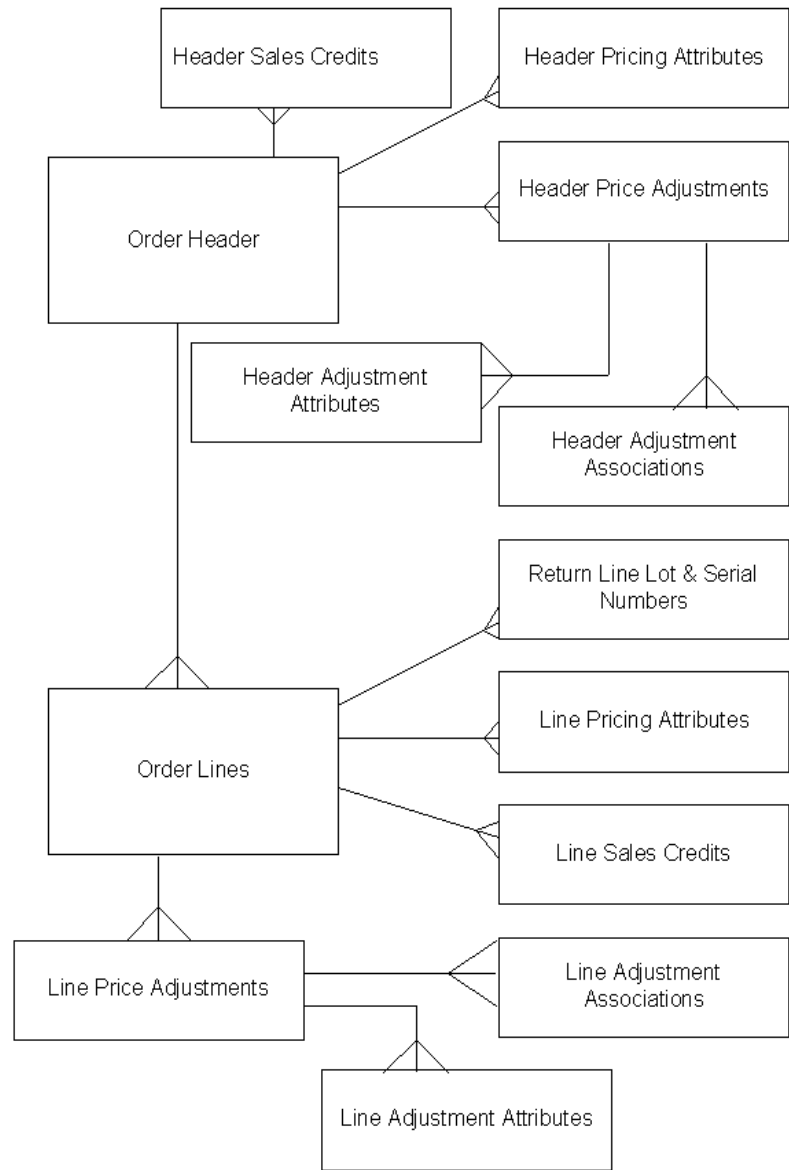
- Header Level
 - Order Header
 - Header Sales Credits
- Line Level
 - Order Lines
 - Line Sales Credits
 - Line Price Adjustments
 - Line Pricing Attributes
 - Line Adjustment Attributes
 - Line Adjustment Associations
 - Lot Serial Numbers.

Many of the attributes previously defined at the header level are now also defined at the line level. For example, Bill To is now defined at the line level. This allows for order lines on the same order to be billed to different bill-to sites. The attribute values at the header level are used to default attribute values at the line level.

See

Electronic Technical Reference Manual (eTRM)

Figure 25–1 Order Management Entities



Order types were previously used for defaulting information on orders, establishing processing controls such as invoicing, and most importantly, determining the order cycle that an order would have. Order cycles, in turn, controlled the processing flow of an order. In Oracle Order Management 11i, order cycles have been replaced with Oracle Order Management Workflow Definitions, and order types have been replaced by Order Management Transaction Types. Oracle Order Management provides seeded workflow process definitions for both orders and lines and enables you to define both order header and order line transaction types.

The new Order Line differs functionally and technically from its R11 Order Entry counterpart. It contains attributes from old SO_HEADERS, SO_ORDER_LINES, and SO_LINE_DETAILS tables, in addition to some new attributes.

Order Management offers Line level independence; each line has its own flow.

Improvements of Order Management 11i over Order Entry:

- In Order Entry the line followed the same cycle as the Order Header it belonged to. Now a line follows a flow that is different from that of the Header. Each Line on an Order can follow a different flow, depending on the Workflow assignment tied to its Line Type.
- In Order Entry a shipment was different from the (shipment parent) line, now every Order Line is a Shipment. The Line quintuplet (Line Number, Shipment Number, Option Number, Component Number, Service Number) is displayed as 1.1.1.1.1 on the Sales Order Form.
- Ordered Quantity on the Line indicates Open quantity as opposed to the original ordered quantity. Cancellation is modeled as a decrement in the ordered quantity along with an increment in the canceled quantity. User and System defined processing constraints define the point in the Order flow, where Cancellations functionality becomes effective. That is you can define the point, where onwards you are required to provide a reason to reduce (cancel) the ordered quantity. The application records history for ordered quantity changes whenever a reason code is provided.
- Many of the Header attributes are now available on the line and their values can be different from that of the Header attribute, such as price list, salesperson, payment terms, shipping and packing instructions, agreement, invoice to and so on.
- Scheduled Order Lines are viewed as demand by the Advanced Planning System.
- Ordering can be based on requested ship or arrival date. Delivery lead time is used to determine the schedule ship date, and it can be user specified.

- When lines were partially processed in Order Entry, they reflected partial cycle states. Now an Order Line splits on partial processing. Order Management splits a line at the following activities: Ship-Confirmation, Return Receipt and Drop-ship receipt.

Order Entry did not support decimal quantities. Now decimal quantities are supported for standard items and configurations. Oracle Order Management also supports ordering, pricing and shipping in different UOMs.

- Shipping tolerances are supported. The tolerance value can be defaulted and adjusted at the line level.
- Order Lines can be entered using the Internal item number or the Customer Item number of one the Generic Item numbers (UPC, EAN, JAN, CLEI). Cross-reference types can be defined in Inventory and used to specify an item.
- Lines can be priced based on a date different from the creation date. The pricing date is exposed enabling you to re-price based on different dates until the Line is invoiced.
- Returns can be entered using Serial number information in addition to the original Order, Invoice or Purchase Order.
- The OE_ORDER_LINES_ALL table now stores Shipments, Options, Included Items Lines and Configuration Item Lines.
- Every line is a shipment and is identified via a line number and a shipment number. The user visible line number ties together all shipments belonging to a line. To split a shipment further use the Split Lines window. The LINE_SET_ID ties shipments from an original line. In Order Entry only a single attribute on SO_LINES_ALL stored the numbering. Depending on the kind of line, it stood for either the line number, the shipment number, the option number or the service line number. These numbers are now de-normalized in the separate column of the OE_ORDER_LINES_ALL table. Additionally, component number helps track included items under a given Line.
- The Category code on the line indicates whether it is an inbound ('RETURN') or an outbound ('ORDER') line. It defaults from the Line Transaction Type.
- Every line that is a part of the configuration, has the TOP_MODEL_LINE_ID pointing to the top Model. The Model line will have the TOP_MODEL_LINE_ID value set to itself. The LINK_TO_LINE_ID points to immediate parent for a line in a configuration. ITEM_TYPE_CODE identifies a item to be a STANDARD, MODEL, CLASS, OPTION or INCLUDED ITEM. For a subassembly (an ATO model within a PTO), the options, classes and included

items under the subassembly has its ATO_LINE_ID column pointing to its ATO Model line.

- Order Entry used S and S Date columns to trace Order Cycle Status. In comparison, Order Management uses Workflow to track status. Core statuses are de-normalized onto the Line: Open/Closed, Booked, Fulfilled. The FLOW_STATUS column stores the Line Flow Summary Status, and its value changes as the Line progresses in its flow. The API OE_LINE_STATUS_PUB provides information about various functional statuses including the completion of the line flow.
- Order Entry used SVRID columns to manage defaulting attribute values and cascading attribute changes. Order Management uses the PL/SQL based Defaulting Framework to provide default values for records but it does not retain an audit trail of how an attribute was defaulted.

Key Order Management Modules

Cancellations

Cancellations in Order Management is flexible. A line can be partially cancelled by directly changing ordered quantity on the line. The system seeded constraints preventing cancellations for standard item line are moved further down the order processing flow to ship-confirmation or invoice interface (for no-ship flows). If needed, you can define more restrictive constraints.

Cancellations is not tracked via workflow. The canceled quantity on the line indicates whether any cancellations have been performed on the line. The canceled flag on the Order and Line indicate whether they have been fully canceled. On a full cancellation, both the Header and Line flow are forced to the close activity.

Order Management enables you to set up rules that determine when a decrement in the ordered quantity is viewed as a cancellation. A cancellation reason is required only when the canceled quantity on the line is incremented over the specified amount. A copy of the old record is stored in OE_ORDER_LINES_HISTORY whenever a reason code is provided together with a quantity change.

Defaulting Framework

Order Management provides enhanced functionality with the PL/SQL based Defaulting Framework. Order attributes are defaulted based on generated PL/SQL Defaulting Rules. You can define a set of rules for each attribute on the order header or line, and you can define the conditions for when to use each rule.

Updates to records do not cause a cascading effect on existing child record. For example, changing the warehouse on the Order Header does not change the warehouse on existing Order Lines. This eliminates the need to store the rule that was used to default a value the first time around. You can use the mass change feature to update a certain value for a set of records. You can use the Mass Change feature to change the warehouse on all the lines of an Order to a different value.

The Defaulting Framework depends on the AK dictionary for object, object relationship and attribute definitions. Various objects can serve as defaulting sources; such as same record, related record, profile options, custom APIs etc. Defaulting Rules can be applied based on user defined conditions.

Fulfillment

Fulfillment is workflow enabled and driven off fulfillment events and sets that are system or user defined. Configurations are implicitly treated as fulfillment sets by the application. The following fulfillment events are seeded:

- Ship-Confirmation
- Purchase Release Receipt
- Return Receipt

You can define your own fulfillment event activities but must configure the seeded Fulfillment activity to recognize them. You can assign an Order line to one or more fulfillment sets. A line in a fulfillment set progresses past the fulfillment activity only when all the members of the fulfillment set(s) it is a member of have been fulfilled.

Columns on the Order Line (fulfilled flag, fulfilled quantity) indicate whether a Line has been fulfilled and the quantity that has been fulfilled. Over & Under shipment can result in a fulfillment quantity that is different from the Ordered quantity. The Over & Under Shipment tolerances control whether a line is considered fulfilled in cases of over or under shipment.

Mass Change

Mass Change enables updating attribute values against selected record sets. You can also copy, reprice, schedule, and apply holds.

Processing Constraints Framework

With PL/SQL based Processing Constraints Framework, Order Management provides enhanced and more flexible security. You can define constraint conditions based on various sources including Workflow Activity Statuses and custom APIs.

Additionally constraints can be defined against responsibilities using both inclusion and exclusion rules.

The Framework depends on AK dictionary for object and attribute definitions. Order Management checks constraints for every update, insert and delete operation on the Sales Order object.

Order Management comes with fewer seeded and less stringent system constraints, which allows greater flexibility. You can define more restrictive constraints to better suit your business needs. Some constraints are seeded for backwards compatibility but can be deleted.

For example:

- A constraint that a line cannot be deleted once the Order is booked is seeded to support upgrading customers. This line can be deleted to better suit your business requirements.
- If a constraint prevents you from performing a certain action, you have the option of sending a notification to somebody who does have the authority to perform that action.

Sets

Order Management supports Ship and Arrival sets. The latter specifies which lines need to arrive together. Pick Release does not look at Ship or Arrival sets to determine what can be released. At Ship-Confirmation you are informed if you are breaking a ship set (and allowed to do so). If you partially ship lines from a Ship Set, they are automatically dropped from the Ship Set. When any of the lines from a Ship or Arrival Set is ship-confirmed the set is automatically closed.

There is no Shipment Parent entity. Every Line that is created is a shipment, and has both a Line and a Shipment Number. To break an existing Shipment Line further into multiple shipments you need to Split it. Splitting a Line creates a Line Set, with all the line records that were split from the original line pointing to the Line Set (via the `line_set_id`). The attributes that need to be common across such lines are stored on the Line Set (Item, Ordered Quantity UOM, Shipping tolerances). Line Sets are only created for outbound top level lines (standard item line, Kit Line, Top Model Lines).

When a Line is partially processed the application splits it. All the child entities split as well, including the line flow. The fully processed part progresses along its flow and the partially processed part awaits processing in its flow.

Partial processing at the following points triggers a Line Split:

- Ship-Confirmation
- Drop- Ship Receipt
- Return Receipt

Partial processing of configurations can result in proportional or non-proportional splits. In the latter case the application also creates a remnant set that has both processed and unprocessed lines.

Order Management also supports Fulfillment Sets. A line in a Fulfillment Set is marked Fulfilled only when the all the members of the fulfillment set(s) have been fulfilled.

Set definitions are stored in OE_SETS. Membership in a Line Set, Ship Set and Arrival sets is de-normalized in the Order Line. Since a given Order Line can be in one or more fulfillment set, fulfillment set membership is stored in OE_LINE_SETS.

System Parameters

Some controls that drive application processing need to be definable at an Operating Unit level. Order Management simplifies the set-up of such controls via the System Parameters entity. You need to define the following controls via the OM System Parameters form:

- Item Validation Organization
- Customer Relationships Enabled Flag

Order Management looks at Oracle Receivables set-up to determine your Set of Books and does not require you to set the value redundantly via an OM specific profile option.

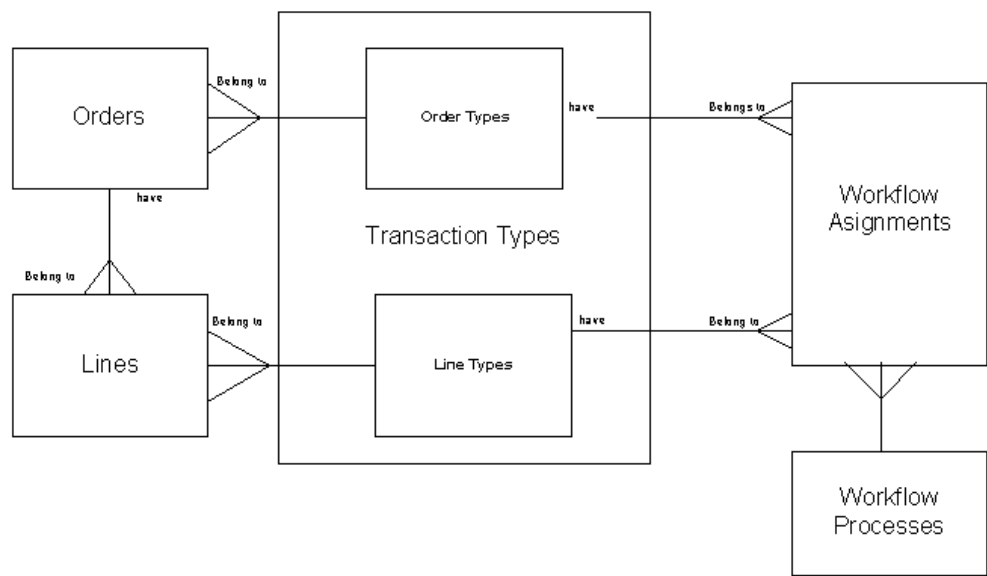
Transaction Types

The application has an entity similar to the Order Type for the Line: the Line Type. Transaction Types stores both Order Types and Line types. Most of the Transaction Type attributes are common to the two types. However there are some controls that are available only at the Header level (e.g.: Order Numbering controls) and some only at the Line level. For example, a control that dictates whether a Line is sourced internally or externally. The category code on the Order Transaction type (ORDER, RETURN, MIXED) lets you control whether you want to mix outbound and inbound lines on a given Order.

Transaction Types also determines the workflow that the Order Header or Line follows. Header workflow is assigned to an Order type and a Line workflow to an

Order Type, Line Type and Item type combination. The same order can contain lines with different line types following different flows.

Figure 25–2 Relationship between orders, lines, order types, line types, and workflow processes



Order Management Integration

Topics covered in this chapter include the following:

- [Overview](#) on page 26-2
- [Applications Core Technology Family](#) on page 26-2
- [Order Fulfillment Family](#) on page 26-5
- [Business Intelligence Products](#) on page 26-6
- [Financials Product Family](#) on page 26-7
- [Human Resources Product Family](#) on page 26-8
- [Logistics Product Family](#) on page 26-8
- [Product Lifecycle Management Family](#) on page 26-9
- [Procurement Family](#) on page 26-10
- [Supply Chain Planning Family](#) on page 26-11
- [Manufacturing Product Family](#) on page 26-11
- [Marketing and Sales Family](#) on page 26-13
- [Service Family](#) on page 26-14

Overview

Processing an Order requires integration with many other business areas. Most integration points with other Oracle products are implemented via PL/SQL-based APIs. The following summarizes the integration points between OM and other products, organized by Product Family:

Applications Core Technology Family

AK - Common Modules

AK serves as a common runtime dictionary for both the Defaulting and Processing Constraints Frameworks. These modules use AK for object and attribute information. AK replaces the functionality provided by SO_OBJECTS and SO_ATTRIBUTES in R11 Order Entry.

Additionally Order Management uses the following tables to extend the AK data model to support Usage functionality:

OE_AK_OBJECT_EXT

OE_AK_OBJ_ATTR_EXT

AOL

Order Management uses the following AOL features:

Document Sequences AOL Document Sequences feature meets Order Numbering requirements. This lets you number Order and Returns using Manual, Automatic or Gapless sequences.

You can define Document Sequences using the AOL Define Document Sequences form. When you define an Order Transaction Type, the application automatically creates a Document Sequence Category of the same name. You can assign a pre-defined sequence to one or more Document Sequence Categories, using the AOL Sequence Assignments form. When an Order is created, Order Management calls AOL Document Sequence APIs to number the Order.

Attachments Order Management drives off the AOL Attachment functionality enabling you to attach images and web pages as well as short or long text. It also offers multi-lingual document capability. Attachment definition and usage data is stored only in AOL.

Automatic Addition rule definitions are stored in Order Management (OE_ATTACHMENT_RULES, OE_ATTACHMENT_RULE_ELEMENTS). In addition to the attributes (Customer, Ship-to, Invoice-to, Order Type, Item, PO #) that were previously available, you can now define rules based on the Order Category, Line Category and Line Type.

The Profile Option OM: Apply Automatic Attachments determines whether rule based attachments are automatically applied (without User intervention).

eCommerce Gateway

The eCommerce Gateway has the ability to load orders and order changes into Order Management via Order Import. Order Management pushes Order Acknowledgment and Change Order Acknowledgment data back to the eCommerce Gateway.

iSetup

iSetup pushes setup information into the Order Management schema after an implementer has answered questions regarding their business setup.

Trading Community Architecture

Order Management integrates with Oracle Trading Community Architecture to access customer setup information, including party data, account information, account sites, relationships and contacts. Many attributes of importance to Order Management, such as preferred warehouse, preferred order type, set preferences, price list and many others, are stored in the TCA data model at the account and account site level and are used by Order Management as defaulting sources.

In addition, Order Management, through the 'Add Customer' functionality, allows users to input new customer accounts, addresses and contacts. This data is pushed to the TCA schema, using TCA APIs. 'Add Customer' functions can also be performed through Order Management's Order Import tables.

Workflow

Order Management uses Oracle Workflow to manage Order and Line processing. PL/SQL based Workflow is a natural replacement for Order Cycles functionality. It provides a Graphical User Interfaces for defining activities, notifications, flows and viewing flow status. There are no limits on the number of custom functions or notifications you can define.

Additionally, it provides the following features:

- **In-built flexibility:** You can easily extend functions or flows using the Workflow Builder.
- **Support for notifications:** Approval functionality is supported via Notification activities. You can easily define notifications via the Workflow builder and use them in flows. Notifications can be accessed via any electronic mail application or the Notifications web page.
- **Coordination between parent-child flows:** This aids in synchronizing Header and Line flows. Thus you can have lines wait for the Order header to complete a certain header activity or have the Header wait for all lines to complete a certain line activity.
- **A built-in on-line/background mode with a user-definable threshold:** This enables you to run certain activities such as Credit Checking off-line.

Every Order Header and Line entered into the system starts a workflow. Order Headers follow Header flows and Order Lines follow Line flows. The product comes seeded with several Order and Line flows. Every business function is workflow enabled and the product comes seeded with functional workflow sub-processes.

Order Headers are mapped to the OM Order Header workflow item type (OEOH). Order Lines are mapped to the OM Order Line workflow item type (OEOL). The Workflow Engine APIs are used to create, start and manage flows. The Order Type tied to an Order determines the Header flow it starts. The Order Type, Line Type, and Item type determines the Line flow a Line starts.

The FLOW_STATUS column on Order headers and Lines provides summary information about the flow. Its value changes as the Order or Line progresses in its respective flow. You can also use the Public query APIs (OE_HEADER_STATUS_PUB, OE_LINE_STATUS_PUB) to get information regarding various functional statuses and when an Order or Line activity was completed.

The Workflow builder is available on the Windows (NT, 98 and 2000) platform. You can use this graphical tool to define flows. The Workflow monitor is a Java based tool that can be launched from the Sales Order form. It lets you graphically monitor a workflow's progress as well and view its transaction history.

XML Gateway

The XML Gateway has the ability to load orders and order changes into Order Management via Order Import. Order Management pushes Order

Acknowledgment and Change Order Acknowledgment data back to the XML Gateway.

Order Fulfillment Family

Advanced Pricing

Order Management leverages many business objects belonging to Advance Pricing, including price lists, modifiers, and agreements. Order Management, through its Blanket Sales Agreement functionality, creates price lists and pushes them into the Advanced Pricing tables. Order Management calls the Pricing Engine to make pricing requests during the processing of orders, and receives pricing information back from Advanced Pricing.

Configurator

Order Management integrates with Oracle Configurator to support ordering and validation of configurations. The Configurator window is a Java Applet that can be launched from the Sales Order form. Order Management communicates with Oracle Configurator through XML messaging.

See

Oracle Configurator Developer User's Guide

iStore

iStore generates quote header and lines which are then sent to Order Management using the Order Capture API.

Release Management

Oracle Release Management pushes orders, lines and Blanket releases into Order Management via the Process Order API. Order changes arising from changes to schedules in Release Management are also communicated to Order Management via Process Order. Order Management sends order status information back to Release Management, so that its schedules can be kept in sync with the orders.

Shipping Execution

Order Management provides APIs to Shipping to view lines that are eligible for delivery planning, picking and shipping. The view `OE_DELIVERY_LINES_V` returns all open, booked, shippable lines that are not interfaced to Shipping. When an Order Line reaches the Ship Line workflow activity, Order Management calls Shipping APIs to indicate that a line is pick eligible and communicate changes to the line once it is interfaced to Shipping. When a delivery is ship-confirmed, Shipping calls OM APIs to communicate the event, triggering the line flow to move forward. If Freight Costs were input during ship confirmation, that information is communicated back to Order Management when the delivery line is interfaced back from Shipping.

Oracle Order Management/Shipping Execution, provides an XML-based adapter to integrate to International Trade Management (ITM) Applications. The Oracle International Trade Management Adapter serves as the interface point to third party international trade management partners. With this adapter, Oracle E-Business Suite applications can embed global trade functionality into core business transactions. Oracle Order Management utilizes the ITM Adapter to support Denied Party Screening. Oracle Order Management has expanded the ITM features that are available when using Oracle Order Management and the Oracle ITM Adapter in conjunction with a third party ITM partner. Features include:

- Export Compliance Workbench: Process screening failures without having to navigate to multiple forms
- Export Compliance Screening Concurrent Program: Progress multiple lines that have failed earlier due to data errors
- Export Compliance Screening Failure Report: Manage screening failures
- Export Compliance Report to Government: Provide the US Government with a list of exported lines

Business Intelligence Products

Business Intelligence

Booked and fulfilled order lines from Order Management are pulled into the Applications Data Warehouse, where they become input to the various sales Business Intelligence reports.

Daily Business Intelligence

Order lines from Order Management are pulled into the Daily Business Intelligence product to produce up-to-date performance metrics.

Financials Product Family

iPayment

Order Management accepts Credit Card information when entered on orders. It integrates with Oracle iPayment to validate this information and get Credit Card authorizations. This information is then interfaced to Receivables.

iReceivables

Order Management integrates with iReceivables via the [Order Information Portal](#). This integration allows users of the OIP to view invoices and credits related to the order they are viewing.

Payables

Order Management accesses the AP Bank Accounts table to populate the Credit Card LOV when an order is being entered with a payment type of Credit Card. Additionally, if a new credit card number is entered and the authorization of that card through iPayment is successful, Order Management calls an AR API to create a new bank account record for the customer in the Bank Accounts table.

Receivables

Order Management integrates with Oracle Receivables in the following function areas:

- **Invoice Interface:** Order Management sends invoices and credit memos to Receivables via the Invoice Interface workflow activity. The seeded Invoice Interface - Line workflow sub-process populates the Receivables interface table. You run AutoInvoice to create invoices.

Order Management also supports Header level invoicing via the seeded Invoice Interface - Order.

- **Receipts:** Order Management calls Receivables' Receipt API to create receipts for prepaid credit card orders. Order Management receives a payment-set id from AR when the receipt is created, and then passes that id back to AR in the autoinvoice tables at invoicing time so that the invoice can be matched to the receipt.
- **Tax:** Order Management calls the Global Tax Engine APIs to default the Tax Code (ARP_TAX.GET_DEFAULT_TAX_CODE) and to calculate estimated tax (ARP_PROCESS_TAX.SUMMARY) for the order Line. The estimated tax value is now stored on the line and re-calculated only when any of the attributes affecting tax change. Information about the tax value is also stored as Line Price Adjustments.

The Tax Engine looks at the view OE_TAX_LINES_SUMMARY_V to calculate the estimated tax value for an Order Line.
- **Credit Management:** If the Credit Management product is installed, notifications are sent to it by Order Management when an order or line goes on credit hold, to initiate a credit review. If the credit review results in a decision to approve the order, a business event is posted which OM subscribes to and then releases the credit hold.

Human Resources Product Family

Training Administration

Order Management integrates with Oracle Training Administration to link classes and enrollments with orders for the purpose of billing. When classes or enrollments are marked as having been attended, the associated order lines are updated as fulfilled, and their line flows advance to the invoicing step.

Logistics Product Family

Inventory Management

Order Management integrates with Oracle Inventory Management through Managing Reservations. Order Management calls Inventory's reservation APIs to manage reservations. You can create reservations to on-hand quantities from the Sales Orders form. You can also go to Inventory's reservation form from the Sales

Orders form and create a reservation to any level of inventory such as sub-inventory, locator, or lot if supply is available.

When supply is created for a ATO configuration (for a configuration item), it is reserved to a Work Order. This reservation gets transferred to on-hand when the work order is completed, thus reserving the Order line to on-hand. For every Order created, Order Management creates a record in MTL_SALES_ORDERS, an entity that Inventory uses to manage demand from various sources.

Reservation information is stored in MTL_RESERVATIONS. Reservation records for order Lines point to both MTL_SALES_ORDERS and OE_ORDER_LINES_ALL.

Transportation

Order Management calls APIs belonging to Oracle Transportation to obtain Shipping Method options and estimated Freight costs at the time of order entry. Order Management passes order line information to Transportation, and it uses any routing guides that have been set up as well as actual carrier rates to determine the ship method and the estimated costs. The call is first made by the user executing Freight Rating or Ship Method Selection from the Action menu, and subsequently, any order changes that impact the rate or ship method cause those functions to be re-executed.

Product Lifecycle Management Family

Bill of Material

Order Management integrates with Oracle Bill of Material when models and kits are entered on sales orders. Order Management uses the Bill of Material defined for the model or kit or explode the model into its components, for the purpose of the user selecting options and for shipping purposes.

PLM

Order Management integrates with Oracle Product Lifecycle Management in the following areas:

- **Items:** Order Management integrates with Oracle Product Lifecycle Management to access item setup information, including items, cross references and item relationships. Many attributes of importance to Order Management, such as preferred warehouse, processing flags, item type, price list,

catchweight-enabled and many others, are stored in the item database and are used by Order Management as defaulting sources.

- **Customer-Item Cross reference:** You can use Oracle PLM to set-up Customer Items and Customer Item Cross reference information. You can then place orders using those pre-defined customer item identifiers. Order Management calls the Inventory API INV_CUSTOMER_ITEM_GRP to derive the internal item based on the specified customer item, ship-to site and the warehouse on the Order Line. The Item Identifier Type on the Order Line indicates the Cross-reference Type that was used for placing the order. The Ordered Item tracks identifier that was used to place the order.
- **Related Items:** Item Relationships set up in PLM are used in Order Management to display the 'Related Items' window on the Sales Order form, to give users visibility to, for example, upsell and cross-sell items, substitute items, item supercessions, and so on.

Procurement Family

Purchasing

Order Management integrates with Oracle Purchasing in the following functional areas:

- **Return Receipts:** Order Management uses the Oracle Purchasing Receipt functionality to handle Return receipts. When an item is received, Purchasing calls Order Management to indicate delivery and to get COGS information. When an item is accepted and delivered to Inventory, Purchasing calls Order Management (OE_RMA_RECEIVING) to indicate acceptance. Fulfillment of the Return line is driven off the acceptance event.

Purchasing looks at the view OE_PO_ENTER_RECEIPTS_VIEW to determine the Order Lines to expect Return receipts against. This view returns lines that are booked, receivable and are waiting at the Wait for Receiving block activity.

- **Internal Orders:** Oracle Purchasing uses Order Import to create internal orders. Purchasing calls the Process Order API to communicate changes in the requisition to Order Management. Order Management calls a Purchasing API (PO_SUPPLY) to communicate changes in the internal order to Purchasing.
- **Drop-Ship Orders:** Order Management integrates with Purchasing to fulfill drop-ship orders. It populates the PO requisitions interface table with information for order lines that need to be fulfilled via an external source.

Purchasing calls Order Management APIs (OE_DROP_SHIP_GRP) to communicate information about the requisition, purchase order and receipts. Order Management provides a link to the Drop Ship information from the Additional Line and Additional Order Information windows of the Sales Order form.

Supply Chain Planning Family

Advanced Planning System/Global Order Promising/ Advanced Supply Chain Planning

Order Management uses Advanced Supply Chain Planning's Global Order Promising functionality to check the availability of ordered items and to schedule order lines. Scheduled Order Lines are viewed as demand by the Advanced Planning System.

To check availability or schedule an order line (scheduling checks availability and consumes supply if there is any available), Order Management calls an MRP API (MRP_ATP_PUB.CALL_ATP). MRP checks for item availability (or group availability if a group of lines is passed) and returns back the results. The API also sources the line (find a ship from location) when a ship from location is not specified. A source will only be returned if there are sourcing rules set up in MRP. To ascertain open demand Planning looks at the view MTL_DEMAND_OM_VIEW, based off OE_ORDER_LINES. This returns open (un-shipped) lines whose visible to MRP flag is set to Y. The visible to MRP flag is set to Y, when a line is scheduled.

Before booking, Advanced Supply Chain Planning also performs item substitution during scheduling for order lines, when the ordered item is not available at the sourcing location and a substitute is available for the total line amount.

Manufacturing Product Family

Cost Management

Order Management calls the Cost Management CST_COST_API to obtain cost from cst_item_costs or cst_quantity_layers when the Gross Margin feature of OM is enabled. Item cost is stored on the order line, for ease of calculating the margin.

CTO

Order Management integrates with Configure-to-Order processes to fulfill orders for Replenish to Order models and items. These business functions are Workflow enabled. If the item is a 'buy' item, the process routes the items to Purchasing by creating a requisition. This process is called back-to-back orders. If the item is a 'make' item, the process flow creates the Configuration Item, BOM, Routings, Work Orders, and Flow Schedules. When the item is replenished (either by making it or buying it), the item is received into inventory and the reservation is transferred to the OM order line, so it can be shipped.

Order Management's Sales Order UI provides a link to the Supply to Order Workbench where the user can see the supply details and status for documents (purchase order or work order) that are reserved or referenced to the ATO sales order line. This enables customer service representatives to give customers an order status without having to navigate to the PO, WIP or flow forms.

Process Manufacturing

Order Management is able to process orders for items whose inventory is tracked in Oracle Process Manufacturing's Inventory application. When the warehouse on the Order Line is a process enabled inventory organization, reservations are handled by OPM Inventory.

Order Management calls `GMF_CMCOMMON.cmcommon_get_cost` to obtain cost for items in process warehouses when the Gross Margin feature of OM is enabled. Item cost is stored on the order line, for ease of calculating the margin.

When processing orders for items in process enabled inventory organizations, Order Management enables additional attributes at the order line level to allow dual unit-of-measure (catchweight) and grade support. The secondary unit-of-measure and pricing unit-of-measure are interfaced to Advanced Pricing for catchweight items to enable accurate pricing at time of shipment.

Project Manufacturing

If a line is sold for a project tracked in PJM, you can record in Order Management the project and task number. Order lines that are identified as belonging to a project and task are pulled into PJM after fulfillment to update status in PJM.

Quality

Oracle Quality creates RMA and sends them to Order Management for processing. In addition, Order Management provides visibility to Quality Plans for items displayed via the Order Information Portal through integration with Quality.

Work in Process

Order Management integrates with Oracle Work in Process to fulfill orders for Assemble to Order models and items. These business functions are Workflow enabled. The ATO process flow creates the Configuration Item, BOM, Routings, Work Orders, and Flow Schedules as required. The Work Order carries a link back to the OM order line, and the OM user can see the WIP job number and status by viewing the Inventory Reservation associated with the order line. Once the WIP job is complete or partially complete, the reservation is transferred to the OM line, and the line continues on its process flow.

Marketing and Sales Family

Incentive Compensation

Incentive Compensation (previously called Sales Compensation) pulls order lines from Order Management using a transaction collection API to calculate commissions and effectively align compensation with business objectives.

Order Capture

Order Management integrates with a few CRM products such as iStore, Quoting, and Depot Repair through Order Capture. The external teams can use the Order Management Process Order Group APIs to convert a quote to an order. Any changes to the Order Management Objects are communicated on-line to Order Capture via the Order Capture feedback queue. CRM products which are interested in the Order related information need to subscribe to the Order Capture queue to poll the messages.

Partners Online

Partners Online sends orders and lines entered through its user interface to Order Management by way of the Process Order API.

Telesales

Telesales' eBusiness Center has several integrations with Order Management. There is an Order tab to view order history and create new orders. The New button on the Order tab launches the Sales Order window. The Party, Account, Address and Contact information entered in the eBusiness Center are carried over and populated in the Sales Orders window. Order Management automatically creates an account, if an Account does not yet exist for the Party provided in TeleSales. The user can then enter the other details and process the Order.

Trade Management

Order Management can receive RMA orders and lines from Oracle Trade Management as part of its dispute handling functionality. In addition, Order Management leverages the Promotion Limits feature of Trade Management through Advanced Pricing calls.

Service Family

Depot Repair

Order Management is the ERP module used by Depot Repair to create RMA and Sales Orders, validate customer accounts, and invoice customers for repairs.

See

[Order Capture](#)

Field Service

Field Service Report requires specifically that you setup Price Lists, Units of Measure (UOM), and two Inventory Item Attributes in Order Management. Price Lists contain the list price for an item. Items could be material, but also labor and expenses like units of driving distance. Once material, expense and labor transactions for a task have been taken down on the Field Service Debrief, this information is updated to Charges. In Charges the list price for the item is received from Order Management and is used to generate an invoice for a customer.

Install Base

Order Management has a workflow activity which can be inserted into the line flow to send the attributes on the line (Install Base Owner, Current Location, and Installed Location) to Install Base for shippable items. The message is published to the Service Delivery (SDP) platform. The SDP Event Manager pulls the information from the SDP platform through concurrent processes and pushes the information to Install Base. Once Install Base has the data, a customer record is created.

Once Install Base has the data, a customer record is created. Install Base also supports Internal Sales Order transactions by appropriately creating / updating item instances as a result of transactions between internal organizations such as pick transactions, shipments, and receipts.

Service Contracts

Service Contracts has an API which pulls information from the Install Base newly created customer records and creates an ownership record.

- **Warranty:** A Warranty contract is created when a Serviceable product is shipped. A Warranty contract is created when serviceable product with bill of material contains a warranty. Whenever possible, where multiple products are sold on one order, one warranty is created for all the products. Each different warranty item creates a separate warranty line on the contract.
- **Extended Warranty:** An Extended Warranty contract is created when an Extended Warranty is sold on a sales order. Extended Warranty contracts can also be consolidated
- **Subscription:** Fulfillment starts after the contract approval process. Driven by each subscription line's instantiated fulfillment template, a concurrent program creates a sales order in Oracle Order Management for each delivery. The order details are populated with information from the subscription agreement. Once the order is created in Order Management, you can release and ship them. The integration to Oracle Service Contracts is bidirectional. Service Contracts sends Item and fulfillment details to create a sales order. Delivery and status details are sent to Service Contracts, when the order is ship confirmed, to be stored in the Subscription contract.
- **RMA:** Service Contracts sends Order Management RMA information via the Process Order API.

Service Fulfillment Manager

Order Management integrates with SFM via workflow activities that can be inserted into the Order Management header and line flows. Order lines holding items that are marked as provisionable will be sent to SFM instead of through the Shipping Execution process for fulfillment.

Spares Management

As part of the Oracle Service suite of products, Spares Management is classified as an installable module provided with the Field Service solution. Oracle Inventory and Oracle Order Management are the only prerequisite products specifically required for a Spares Management implementation.

Integration with Oracle Order Management provides the ability to move parts among multiple inventory organizations and includes several sophisticated warehouse management features.

Oracle Spares Management supports the business processes involved in the management of spares parts in a field service organization. It is seamlessly integrated with a number of Oracle's ERP and CRM applications. This integration provides extensive functionality to manage the business activities involved in the spares management process.

Oracle Order Management provides the functionality for the processing of an internal order to deliver parts to a field engineer for a specific task. An internal order is initiated in Spares Management in the Parts Requirement window. Within Order Management, the internal order is processed almost exactly like an order that is to be shipped to an external customer. This processing includes the picking, packing, shipping and receiving of the order.

Key integration features with Oracle Order Management include:

- Ability to create Internal Orders to transfer parts across inventory organizations
- Ability to use mobile applications in the warehouse
- Ability to use barcode and scanning functionality
- Ability to use pick, pack and ship functionality

Upgrading to Order Management 11i

Topics covered in this chapter include the following:

- [Overview](#) on page 27-2
- [Strategy](#) on page 27-2
- [Intended Users](#) on page 27-3
- [Steps to Upgrade to Order Management 11i](#) on page 27-4
- [An Insight to Order Management Upgrade](#) on page 27-8
- [Fine Tuning the Order Management Upgrade](#) on page 27-14
- [Migrating Cycles to Workflow](#) on page 27-16
- [Migration/Upgrade from Order Types](#) on page 27-56
- [Order Management Profile Option Migration](#) on page 27-57
- [Order Management Flexfield Migration](#) on page 27-60

Overview

The Oracle Order Management 11i upgrade module upgrades the Oracle Order Entry product to Oracle Order Management. This module migrates the data from the Order Entry system to the Order Management 11i system.

It is important to note that the steps / tips mentioned in this document are only related to the Order Management upgrade and must be performed in addition to any other steps for other products you may be installing/upgrading along with Oracle Order Management.

For the complete instructions on how to upgrade your Oracle Applications system to Release 11i, please refer to *Upgrading Oracle Applications Release 11i*.

The Order Management Family contains three products: Order Management, Oracle Shipping Execution, and Oracle Advanced Pricing. The tables in these products are prefixed as follows:

- For Order Management the prefix is OM
- For Oracle Shipping Execution the prefix is WSH
- For Oracle Advanced Pricing the prefix is QP

Strategy

If Oracle Order Management is selected for installation, while the Oracle APPS Install/Upgrade is executed, this module is invoked. During this time, all the database server side code and the client side code are applied to your APPS environment, as part of the Order Management Install Process. If your APPS environment had an Oracle Order Entry Release 10.7/11.0 product previously installed, then the Order Management Upgrade Process is invoked.

The Order Management Upgrade migrates the setup tables on a table to table basis, however, the transaction tables are migrated on a business object by business object basis. A sales order (header, lines, price adjustments, and sales credits) is considered a business object.

The upgrade first migrates the header, then all the lines, their price adjustments and the sales credits. If an error is trapped during the migration of any portion of the data, pertaining to the same order, then the whole order is rejected for upgrade and an error logged in the error table OE_UPGRADE_ERRORS. All the successfully migrated orders are committed.

The upgrade also uses parallel distribution of the upgraded transactions, where most of the transaction upgrades are written and processed by 32 parallel processes. This helps in maximizing the utilization of the CPUs available.

Bifurcation of Order Management Upgrade

The Oracle Order Management 11*i* Upgrade Bifurcation is an optional feature, available to the Order Management 11*i* Upgrade customers. This provides the solution to customers with high volume Order Management data, who want to complete the Order Management Upgrade with minimal downtime. To help the customers upgrade the Order Management transactions within the limited time, the bifurcation option picks only the active transactions during the 11*i* Upgrade process. The inactive transactions are upgraded after the process is complete, either as a post-upgrade step or after the system is released for functional use. This bifurcation impacts the transaction upgrade of Order Management, Shipping Execution and Advance Pricing data.

The Bifurcation feature is designed to be executed in two phases; The first phase, that will be applied before the AutoUpgrade is run, identifies the active transactions in the Order Management, Shipping Execution and Advanced Pricing systems and marks them for upgrade during Release 11*i* upgrade process.

The Bifurcation Phase II is applied either as a post-upgrade step or after the release of the 11*i* systems to users for functional use. This second phase essentially upgrades the inactive transactions that are left behind by the bifurcated Release 11*i* Order Management Upgrade.

Impact to Customers due to Order Management Bifurcation Approach

While the Bifurcation is a great solution to upgrade Order Management within limited down time, please keep in mind, if you elect to defer the upgrade of inactive orders, that reports, forms and other user interface tools will not be able to access the inactive orders until they are upgraded. Therefore it is highly recommended to apply the Bifurcation Phase II as early as possible, after the release of the 11*i* system.

This Bifurcation may not benefit customers who have thousands of lines for every order, thus having very few orders in their system.

Intended Users

This document is intended for Upgrade customers ONLY.

Intended users are customers with Order Entry Release 10.7/11.0 versions, who want to migrate to Order Management 11i (The Order Management 11i Upgrade will not support versions other than Order Entry Release 10.7 / 11.0 for the Order Management upgrade).

Steps to Upgrade to Order Management 11i

The following steps may be already included in the Upgrade Manual, or may be purely additional steps to the ones mentioned in the Upgrade Manual. The following steps must be considered as additional steps related to Order Management Upgrade / check points, while performing the Oracle Applications Release 11i upgrade as per the Upgrade Manual. The steps mentioned in this section are available in a more detailed manner in the Oracle Order Management Upgrade White paper which is available via Metalink (note id: 121200.1).

1. Order the Oracle Applications 11i product and the supporting documentation

Contact your Oracle sales contacts to order the Oracle Applications Release 11i product. Make sure you have the Upgrade Manual, which can be found at http://metalink.oracle.com/metalink/plsql/ml2_documents.showNOT?P_id=67017.1

2. Perform the Order Management Pre-Upgrade steps (category 1)

Once you receive the Upgrade Manual, perform the required pre-upgrade steps before you download the software. These steps are mentioned in Category 1 and 2 of the Order Management Pre-Upgrade Tasks. These steps can be performed even while Order Entry Release 10.7/11.0 is functional and in use. This means, that the users can be logged in to the applications while these steps are performed.

3. Download the APPS 11i software

Download your APPS 11i software, that will include all the Order Management upgrade related files. This will create your new APPL_TOP, where your 11i will be downloaded and you will use for running your Auto-Upgrade/Patches and accessing your applications.

4. If necessary apply Order Management Upgrade Mandatory Patch for pre-upgrade steps

Based on the dot release version you have acquired you may or may not need to apply patch 1471461 after you download the software. Refer to Order Management Upgrade White paper for more details on this step, and this document is available via Metalink (document id: 121200.1)

5. Perform the Order Management Pre-Upgrade steps (category 2)

After downloading the APPS 11i software, you must perform the Oracle Order Management Pre-Upgrade steps category 2. You can perform these steps only after you download the software, however the system may remain functional and the users logged in, NOT requiring downtime.

6. Perform the Order Management Pre-Upgrade steps (category 3)

This stage ends the functional use of Order Entry Release 10.7/11.0 product. The users should not be logged in while performing these steps. Some of the steps mentioned in this category might be a repetition of the steps mentioned in the category 2. There are also some steps that ask you to check the pre-upgrade data to see if it is supported by the Order Management upgrade. You must run the mentioned scripts and check to see if you have any orders which have unsupported data. If you have any, then you must login to your Order Entry system and correct those data before you proceed to AutoUpgrade of Release 11i. If you fail to do this, then those unsupported data **may not** be upgraded to Order Management 11i, and you may not have another opportunity to correct this data, as Order Entry Release 10.7/11.0 system will not be functional after you start the Order Management AutoUpgrade.

7. If you intend to Bifurcate the Order Management Upgrade, apply Patch 1393123 (Bifurcation Phase I).

Skip this step if you are not using Order Management Upgrade Bifurcation Approach.

Note: Applying this patch will upgrade only the active Order Management transactions during the Release 11i upgrade, and you must then apply the Bifurcation Phase II patch after the Release 11i upgrade process, to complete the upgrade of non-active Order Management transactions. Make sure you have opted the Order Management Upgrade Bifurcation Approach, before you apply this patch.

Download patch 1393123 from Metalink and apply the patch (follow instructions in the readme.txt of the patch) as a Category 3 pre-upgrade step. Running this as a category 2 pre-upgrade step (while the Order Entry system is not yet shutdown for upgrade), is allowed, but repeating this step as a Category 3 pre-upgrade step is highly recommended. Failure to repeat this patch application in the category 3 pre-upgrade step will not cause the upgrade to

fail, but will treat the inactive transactions recorded between the time the patch was previously applied until the time the system is brought down, as active transactions.

This patch contains a sequence of manual steps to follow. When you plan to apply the patch multiple times, it is adequate to do the copying of files once, (the first time you apply the patch), and just repeat the other manual instructions every time you want to re-run the patch.

Running the sql script `ontup293.sql` which is a manual step, requires inclusion of a parameter along with the script name in the command line. This parameter is the age of the orders after they are closed. Essentially you have to pass a number along with this script. If you pass 60 as the number, then the orders closed within the last 60 days will also be considered as active transactions for bifurcation purpose. If you do not intend to use this option, you may have to use the number 0 as the parameter to this script. Failure to send the parameter will result in the failure of the script, so follow the `readme.txt` of the patch carefully.

8. Apply Non-Order Management Patches required by Order Management, and to be applied before AutoUpgrade

The following patches are the non-Order Management patches, which are pre-requisite for Order Management Upgrade and must be applied before starting AutoUpgrade:

1253654 (database 8.1.6.1 patch)

1323676 (FND patch)

Note: The list is as of the date this document is written and so is not a complete list. Please check the MetaLink for such patches you may want to apply. The following are the ARUs (patches) and the ARU # may vary from OS platform to platform.

9. Run AutoUpgrade

Once the pre-upgrade steps category 1 to 3 are complete and the high-priority patches are applied, you are now ready to run the AutoUpgrade. This is also mentioned in the post-upgrade steps category 4, as the first step. While initiating the Auto-Upgrade, select all the products to install, as per your purchase of licenses. As the Order Management Upgrade talks about Order Management products upgrade, this document assumes that you have

purchased license for upgrading the Oracle Order Management product. Select the Oracle Order Management product from the list of the products to be installed. Select the Oracle Shipping Execution (product code WSH) for Install, along with Order Management (product code ONT), if it is not automatically selected. During this phase, if you had a previous Order Entry Release 10.7/11.0 installation, then the Order Management upgrade is automatically invoked. If you have licensed Oracle Advanced Pricing (product code QP), then select QP also for Install, before you proceed with the AutoUpgrade.

10. If necessary apply Order Management Upgrade Mandatory Patches (ONLY for 11i Order Management Upgrade customers)

You may need to apply patches 1471540, 1537129, 1310156, 1311832, 1324853, and 1324884 before you apply the database patch for your dot release. The exact patch which you may require from the above list depends on the dot release you are using. Refer to Order Management Upgrade White paper for more details on this step.

11. Apply 11i database upgrade patch

The drivers for this come with the software. Refer to the Release Notes for the 11i application software for details on the name and location of these driver files.

12. Perform the Post Upgrade Steps

Perform any other post upgrade steps mentioned in the Upgrade manual.

1. Apply Order Management Minipacks

Based on the dot release you are in, apply Order Management Minipacks like Pack A, Pack B, etc. where applicable. Refer to Order Management Upgrade Whitepaper for more details on this step, and this document is available via Metalink (document id: 121200.1)

2. If Bifurcating the Order Management Upgrade, apply the Patch 1393247 (Bifurcation Phase II)

(Ignore this step if you are not using Order Management Upgrade Bifurcation Approach)

Note: This patch MUST be applied if / ONLY if you have opted the Order Management Upgrade Bifurcation Approach by applying the patch 1393123 as a pre-upgrade step.

Either as a post-upgrade step, or after you release the upgraded Release 11*i* system, apply patch 1393247 to upgrade the remaining transactions, that were not upgraded by the Release 11*i* Order Management Upgrade process, due to Order Management Upgrade Bifurcation.

The patch application requires you to apply a copy driver and a database driver. Refer to the instructions in the patch readme.txt for instructions.

This patch may take several hours to complete, but it can run in parallel to the system functioning and does not require any down time.

An Insight to Order Management Upgrade

The architecture has greatly changed between Oracle Order Entry Release 10.7/11.0 and Oracle Order Management 11*i*. The Order Management Upgrade is all about migrating the data of Oracle Order Entry Release 10.7/11.0 to Oracle Order Management 11*i*. The Order Management upgrade does more than table to table data migration, as the Order Management and Order Entry data models differ substantially.

An overview of the migration of some of the functions taking place in an Order Management Upgrade follow

Upgrade Temporary Objects

The following objects are created and are used only in the Upgrade. These objects are not be used in Order Management and don't offer any functionality after the upgrade. The objects are as follows:

OE_UPGRADE_LOG is a table, that has the mapping between the old line id and the new line id created during the upgrade. This table and its associated view OE_UPGRADE_LOG_V can be used to find the historical information of the pre and post upgrade statuses of the order lines. This is expected to be a very high volume table, as would contain one row for every new line or header created.

OE_UPGRADE_WSH_IFACE is an upgrade table that is populated with the shipping information, during the upgrade, and is used by subsequent upgrade functions. This is expected to be a very large table, as it contains one record for every prospective new line.

OE_UPGRADE_WF_ACT_MAP is a workflow upgrade mapping table, that has mapping information between the cycle actions and its equivalent workflow actions. This table is populated during the upgrade and used within the upgrade only. OE_UPGRADE_WF_HIST_TEMP, OE_UPGRADE_WF_MULGRP_V, OE_

UPGRADE_WF_OBS_CODES, OE_UPGRADE_WF_VLD_CYC, OE_UPGRADE_WF_VLD_CYC_V are the other upgrade tables used during the Workflow upgrade.

OE_UPGRADE_ERRORS is an error storing table and is populated when an error is trapped during the upgrade. The comments column will hold the explanation of the error occurred. The size of this table is dependent on the errors trapped.

For the purpose of maximizing the utilization of the CPUs, the data to be migrated are grouped into a pre-determined number of equal groups, whose details are stored in the OE_UPGRADE_DISTRIBUTION table. The upgrade code is executed multiple times concurrently, and the code pieces refer to the distribution table to pick their group of data for migration. This strategy is used for upgrading Orders, Holds, Workflow History, Invalid Data Marking, Freight Charges and Service Line Details.

The tables OE_UPGRADE_PC_ATTR_MAP, OE_UPGRADE_PC_CONDNS, OE_UPGRADE_PC_SCOPE, OE_UPGRADE_PC_TEMP are table which are currently not in use, but will be used by future versions of the software.

The table QP_UPGRADE_ERRORS is populated when an error is encountered during the upgrade. The ERROR_MODULE column will specify the module like Price Lists or Discounts for which the error is encountered. The ERROR_TYPE column will further refine the error details within the ERROR_MODULE. The ERROR_DESC column will give the description of the error.

The table QP_DISCOUNT_MAPPING is used to map the old discount IDs to the new discount IDs.

For every record in SO_PRICE_LISTS_B (Price Lists), a record is created in QP_LIST_HEADERS_B and QP_LIST_HEADERS_TL. When creating the new records in QP_LIST_HEADERS_B and QP_LIST_HEADERS_TL, the old PRICE_LIST_ID in SO_PRICE_LISTS_B is retained. Also, the price list that is being upgraded is created as a qualifier for its secondary price list specified in SO_PRICE_LISTS_B. Mapping between the old and new discount list and lines is stored in QP_DISCOUNT_MAPPING.

The table QP_UPG_LINES_DISTRIBUTION is used to distribute the Price list ids, Discount ids, Agreement ids, Pricing Rules ids among 32 workers. This is to run the upgrade in parallel for improved performance.

Order Headers

The SO_HEADERS_ALL table is migrated to OE_ORDER_HEADERS_ALL table in Order Management, however, the SO_HEADER_ATTRIBUTES table is also merged into OE_ORDER_HEADERS_ALL table itself. The Header Id is preserved during

the migration. The new sequence OE_ORDER_HEADERS_S is reset with the highest value in its Order Entry equivalent sequence SO_HEADERS_S, and is used to generate the header id in the OE_ORDER_HEADERS_ALL table, for any new orders.

Order Lines

The SO_LINES_ALL table is migrated to OE_ORDER_LINES_ALL table, however, the tables SO_LINE_ATTRIBUTES, SO_LINE_DETAILS also are merged into the OE_ORDER_LINES_ALL table. As the Line Detail concept is obsolete in Order Management 115, and the picking details are now stored at the Line level, every old line (line in the SO_LINES_ALL table), is now converted into one or more new lines (lines in the OE_ORDER_LINES_ALL). When one old line is migrated into multiple new lines, the old line id will be preserved in the first of the new lines. The rest of the new lines will be assigned newly generated line ids. The new sequence OE_ORDER_LINES_S is reset with the highest value in its Order Entry equivalent sequence SO_LINES_S, and is used to generate the line id in the OE_ORDER_LINES_ALL table. The descriptive flex field definitions from SO_LINES_ALL table are transferred to OE_ORDER_LINES_ALL table.

Order Lines History

This is a new table and is populated during the upgrade. Mainly cancellation records are stored in this table and so the records from SO_ORDER_CANCELLATIONS are migrated to this table namely OE_ORDER_LINES_HISTORY.

Price Adjustments

The SO_PRICE_ADJUSTMENTS table is migrated to the OE_PRICE_ADJUSTMENTS table. While the header level price adjustments have a direct one to one record migration, the line level price adjustments may end up with more than one record for every old price adjustment record, during the upgrade. Every new order line created will now have a price adjustment record in the OE_PRICE_ADJUSTMENTS table, if its old line had a price adjustment record. Even though the old price adjustment id is preserved in the first of the new set of records created, the rest of the records have the id generated during the upgrade. The new sequence OE_PRICE_ADJUSTMENTS_S is reset with the highest value in its Order Entry equivalent sequence SO_PRICE_ADJUSTMENTS_S, and is used to generate the price adjustment id in the OE_PRICE_ADJUSTMENTS table.

Sales Credits

The SO_SALES_CREDITS table is migrated to OE_SALES_CREDITS table. While the header level sales credits have a direct one to one record migration, the line level sales credits may end up with more than one record for every old sales credit record, during the upgrade. Every new order line created will now have a sales credit record in the OE_SALES_CREDITS table, if its old line had a sales credit record. Even though the old sales credit id is preserved in the first of the new set of records created, the rest of the records have the id generated during the upgrade. The new sequence OE_SALES_CREDITS_S is reset with the highest value in its Order Entry's equivalent sequence SO_SALES_CREDITS_S, and is used to generate the sales credit id in the OE_SALES_CREDITS table.

Line Sets

A Line set in Order Management is created when a line in Order Entry had multiple records in SO_LINE_DETAILS table or has multiple picking details or a line was split into multiple shipments. The upgrade creates a line set record in OE_SETS table for every such situation. This newly created line set id is updated in all the new line records created, that originates from such an old line record in Order Entry. The set id is generated from the new sequence OE_SETS_S.

Ship Sets

The ship set id is generated from the new sequence OE_SETS_S.

Cycles to Workflow

All the cycles in the Release 10.7/11.0, which are referenced by open headers or open lines are now converted to the workflow processes. A cycle that had header level and line level actions is converted to separate header level workflow and line level workflow. Cycle actions are converted to workflow activities inside these workflows. The upgrade appropriately assigns the orders and lines to the right workflows created. The upgrade also creates history for all the open orders and lines. Workflow history will not be created for closed order or lines.

Transaction Types

Transaction types are MLS enable in release 11i: names from 10.7 are carried over to _TL tables.

The SO_ORDER_TYPES_ALL table is migrated to OE_TRANSACTION_TYPES_ALL table as Order Types and Line Types and for each Order Type in SO_ORDER_TYPES_ALL table. You will have one Order Type record and one or more Line Type

records in the OE_TRANSACTION_TYPES_ALL table. OE Order lines in release 11i are populated from so lines, so line details, and so picking line details.

The workflow to transaction types assignments are created in the OE_WORKFLOW_ASSIGNMENTS table. The sequence SO_ORDER_TYPES_S is replaced with OE_TRANSACTION_TYPES_S sequence and the new sequence OE_WF_ASSIGNMENTS_S is introduced to get the key generated for the OE_WORKFLOW_ASSIGNMENTS table.

Freight Charges

The table SO_FREIGHT_CHARGES is migrated to OE_PRICE_ADJUSTMENTS table and the table SO_FREIGHT_CHARGE_TYPES is migrated to QP_LIST_HEADERS_B, QP_LIST_HEADERS_TL and QP_LIST_LINES tables. The sequences SO_FREIGHT_CHARGES_S and SO_FREIGHT_CHARGE_TYPES_S are now obsolete in Order Management Release 11i.

Drop Ship Sources

The SO_DROP_SHIP_SOURCES table is migrated to OE_DROP_SHIP_SOURCES table. The new table OE_DROP_SHIP_SOURCES may get more than one record for every record in the old table SO_DROP_SHIP_SOURCES, depending on the number of new order lines created for the old order line referenced in the SO_DROP_SHIP_SOURCES table. The sequence SO_DROP_SHIP_SOURCES_S is replaced with OE_DROP_SHIP_SOURCES_S sequence.

Holds

The SO_HOLD_SOURCES_ALL table is migrated to OE_HOLD_SOURCES_ALL, SO_HOLD_RELEASES table to OE_HOLD_SOURCES table, SO_ORDER_HOLDS_ALL table to OE_ORDER_HOLDS_ALL table and SO_HOLD_DEFINITIONS table migrated to OE_HOLD_DEFINITIONS table. When records pertaining to order lines are migrated, more than one record may be inserted into the new holds tables, depending on the number of new order lines created for that old order line. The sequences SO_HOLD_DEFINITIONS_S, SO_HOLD_RELEASES_S, SO_HOLD_SOURCES_S and SO_ORDER_HOLDS_S are replaced with the sequences OE_HOLD_DEFINITIONS_S, OE_HOLD_RELEASES_S, OE_HOLD_SOURCES_S and OE_ORDER_HOLDS_S respectively.

Credit Checks

The table SO_CREDIT_CHECK_RULES is migrated to OE_CREDIT_CHECK_RULES and the table SO_CREDIT_CHECK_TYPES_ALL is migrated to OE_

CREDIT_CHECK_TYPES_ALL table. The sequence SO_CREDIT_CHECK_RULES_S is replaced with the sequence OE_CREDIT_CHECK_RULES_S.

Service Installation Details

The data is migrated from the SO_LINE_SERVICE_DETAILS to the CS product (CRM), through the CS APIs.

Price Lists

The data in SO_PRICE_LISTS_B is migrated to QP_LIST_HEADERS_B (LIST_TYPE_CODE = 'PRL') and QP_LIST_HEADERS_TL. The data in SO_PRICE_LIST_LINES_115 is migrated to QP_LIST_LINES (LIST_LINE_TYPE_CODE='PLL').

Discounts

The data in SO_DISCOUNTS is migrated to QP_LIST_HEADERS_B (LIST_TYPE_CODE = 'DLT') , QP_LIST_HEADERS_TL and QP_LIST_LINES (LIST_LINE_TYPE_CODE='DIS'). The data in SO_DISCOUNT_LINES_115 is migrated to QP_LIST_LINES (LIST_LINE_TYPE_CODE='DIS'). The data in SO_PRICE_BREAK_LINES is migrated to QP_LIST_LINES (LIST_LINE_TYPE_CODE='DIS' or 'PBH'). The data in SO_DISCOUNT_CUSTOMERS is migrated to QP_QUALIFIERS.

Agreements

The data in SO_AGREEMENTS_B and SO_AGREEMENTS_TL is migrated to OE_AGREEMENTS_B and OE_AGREEMENTS_TL.

Pricing Rules

The data in SO_PRICING_RULES is migrated to QP_PRICE_FORMULAS_B and QP_PRICE_FORMULAS_TL. The data in SO_RULE_FORMULA_COMPONENTS is migrated to QP_LIST_HEADERS_B and QP_LIST_HEADERS_TL. The data in SO_PRICING_RULE_LINE_VALUES is migrated to QP_LIST_LINES and QP_PRICING_ATTRIBUTES. The data in SO_PRICING_RULE_LINES is migrated to QP_PRICE_FORMULA_LINES.

Profile Options

The new OM profiles OE_ID_FLEX_CODE, ONT_SOURCE_CODE, OE_INVENTORY_ITEM_FOR_FREIGHT, OE_INVOICE_FREIGHT_AS_LINE will get migrated from the 107/110 OE system.

Order Management Upgrade bifurcation

Bifurcation Phase I This phase marks the UPGRADE_FLAG column in SO_HEADERS_ALL table to have a value of 'D' for all the inactive transactions, and a value of 'N' for all active transactions. The Shipping and Pricing tables are then marked active or inactive, taking the clue from the UPGRADE_FLAG of SO_HEADERS_ALL table. (It is important to note that the UPGRADE_FLAG column is updated to 'Y' by the Order Management transaction upgrade, after the Header and its dependent objects are upgraded).

To define Active Order Management transactions the following conditions are checked. The headers that satisfy the conditions are considered as Active transactions.

- All Open Orders
- All Closed Orders that are referred by Open Orders
- All Closed Orders that are part of a Delivery, that has at least one Open Order
- All Closed Orders closed within the specified number of days, specified by the customer, using the Age of Closed Orders option in applying patch 1393123.

Bifurcation Phase II The phase II sets the UPGRADE_FLAG to 'N', where the flag has the value D, then a set of upgrade codes are executed, to upgrade the inactive transactions to Order Management from Order Entry. This set of upgrade codes are not designed to upgrade active orders (mainly open orders) as they do not deal with the Cycles to Workflow upgrade. They are designed to upgrade only inactive (closed) transactions.

Fine Tuning the Order Management Upgrade

Some customers may prefer to follow their own sizing parameters for the Order Management/Pricing /Shipping objects such as tables and indexes. The upgrade executes three files to set the object sizing parameters for the objects of these three products. The files are listed below. If you have done some analysis on your space requirements or would like to follow your own standards for object sizing, you may edit these files with your object sizing parameters, before you start the AutoUpgrade. This change may be done as a last step of the 11i pre-upgrade steps. If you do not edit these files, then the objects will be sized with our estimations.

Object Sizing files

Order Management: \$ONT_TOP/patch/115/sql/ontdbprm.sql

Advanced Pricing: \$QP_TOP/patch/115/sql/qpdbprm.sql

Shipping Execution: \$WSH_TOP/patch/115/sql/wshdbprm.sql

Object Sizing Estimation

Space Requirement Comparisons (Order Entry versus Order Management).

The following is the approximate space consumption comparison between Order Entry Release 10.7/11.0 and Order Management 11i, for the space set of upgraded transactions.

Note: The figures mentioned below are only an approximation, and were derived after gathering statistics from a few high volume Order Management upgrades.

Most of the tables that have a direct one to one migration, may have almost the same space requirement, as in the previous Order Entry release database, with a 10% (+/-) variation.

As a thumb rule, it is recommended to view the following figures with a 10% (+/-) variation.

Table 27–1 Transaction Object Space Comparisons

| For the OM 11i schema Objects | Data | Index |
|-------------------------------|--|---|
| For the whole OM 11i Schema | The data space has been increased by 35 percent as compared to the Order Entry Release 10.7/11.0 | The Index space has been increased by 5 percent as compared to the Order Entry Release 10.7/11.0. |

Table 27–1 Transaction Object Space Comparisons

| For the OM 11i schema | | |
|-----------------------|---|--|
| Objects | Data | Index |
| Lines Tables | Data space for OE_ORDER_LINES_ALL has been increased by 25 Percent as compared to the combined space occupied by the tables SO_LINES_ALL, SO_LINE_DETAILS, and SO_LINE_DETAIL_ATTRIBUTES of Order Entry Release 10.7/11.0 | The Index space for this object has been increased by 50 percent as compared to the combined space occupied by the indexes of the tables SO_LINES_ALL, SO_LINE_DETAILS, and SO_LINE_DETAIL_ATTRIBUTES of Order Entry Release 10.7/11.0 |
| Headers Tables | Data space for OE_ORDER_HEADERS_ALL has been decreased by 15 percent as compared to the combined space occupied by the tables SO_HEADERS_ALL and SO_HEADER_ATTRIBUTES of Order Entry Release 10.7/11.0. | The Index space for these objects has been increased by 5 percent as compared to the combined space occupied by the indexes of the tables SO_HEADERS_ALL and SO_HEADER_ATTRIBUTES of the Order Entry Release 10.7/11.0. |

Migrating Cycles to Workflow

Order Management uses Oracle Workflow to implement Order Cycles functionality. This chapter discusses how each of the following is achieved:

- Upgrade of order types to order and line transaction types
- Upgrade of order number sources to AOL document sequences
- Upgrade of user defined cycle data to Oracle Workflow design-time entities
- Upgrade of order type - cycle assignments to transaction type - workflow assignments
- Upgrade of cycle history for all open order and lines to Oracle Workflow Item Activity Status History

Functional Differences Between Oracle Workflow and Order Cycles

In R11i Order Management, Workflow replaces Order Cycles. Order cycles, cycle actions and approval cycle actions are obsolete. You can define workflow processes

that determine the series of activities executed in an order life cycle. Such workflow activities replace cycle actions. Workflow notification activities replace approval actions. The following table lists how cycle entities map to workflow in R11i:

Table 27–2 Cycle Entity to Workflow Mapping

| R11 Entity | R11 i Entity |
|---------------------------|---|
| Order Cycle | Workflow runnable process |
| Cycle Action | Workflow activity, Workflow sub-process |
| Cycle Action Result | Workflow activity result and look up |
| Cycle Action Prerequisite | Workflow Activity Transitions |
| Approval action | Workflow Notification Activity that requires a response |

Note: Please check the *Workflow User’s Guide(A85440-01)* for detailed information on workflow activities, sub-processes transitions and notifications.

Figure 27–1 is an example of a generic order header workflow process:

Figure 27–1 Generic Order Header Workflow Process

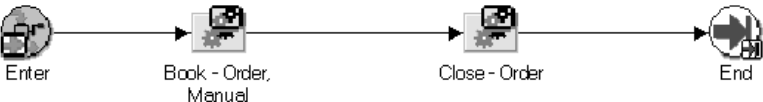


Figure 27–2 is an example of a generic order line workflow process:

Figure 27–2 Generic Order Line Workflow Process

g



Upgrading Order Types

Order types in Order Entry served as a pool for defaulting sources and transactional controls. With Order Management a lot of the header attributes are available on the line and are controllable at that level. The application offers an entity similar to the order type for the Line: the line type. Order types and line types are both referred to as Transaction Types in Order Management.

The order types you defined in Order Entry are automatically upgraded to order transaction types in Order Management. Order types that have an order category R or P are upgraded to order transaction types of category ORDER. Order types that have an order category RMA are upgraded to order transaction types of category RETURN. Order types that do not have an order category specified are upgraded to order transaction types of category MIXED. When you create an Order using a Mixed Order Type, you can combine both order and return lines on it.

The upgraded order type has the same name as the original Order Type it was upgraded from. You can use an upgraded order type for creating new orders, provided you specify the header workflow process that it should use. See Also Users Guide for Defining Transaction Types.

For every order type that is upgraded, one or more line type(s) are also created as follows: For an upgraded order type of category ORDER a line type of category ORDER is created. The default outbound line type on the upgraded order type is set to this automatically created line type. For an upgraded order type of category RETURN a line type of category RETURN is created. The default inbound line type on the upgraded order type is set to this automatically created line type. For an upgraded order type of category MIXED two line types; one of category ORDER and the other of category RETURN are created. The default outbound and inbound line types on the upgraded order type are set to these automatically created line

types respectively. You can use these line types for creating new lines, provided you define new workflow assignments for them.

The line types that the upgrade creates are named as follows:

`UPG_LINE_TYPE_xxx_nnn`

Where `xxx` stands for the category on the Line Type and `nnn` for the Order Type ID of the upgraded Order Type that this line type was created based on. After successfully upgrading to Order Management, you can change the names of these automatically created Line Types to something more user friendly.

- Example: In Order Entry you had defined an order type as follows:
- Name: International (Order Type ID - 1001)
- Category: Regular (R)

After the upgrade you should see the following Order Transaction Type

- Name: International
- Category: Order (ORDER)
- Default outbound line type: `UPG_LINE_TYPE_ORDER_1001`

You should also see the following Line Transaction Type

- Name: `UPG_LINE_TYPE_ORDER_1001`
- Category: Order (ORDER)

Upgrading Order Number Sources

In Order Entry, user defined order number sources controlled how your orders were numbered. When you defined an order number source, the application automatically created a database sequence object for it. You had to specify an order number source, when you defined an order type.

Order Management uses AOL Document Sequences for order numbering purposes. See Also - Order Numbering - Defining Document Sequences.

The upgrade to Order Management automatically migrates your active Order Entry number sources to AOL Document Sequences of type Automatic. It calls the AOL Document Sequence APIs to do so. The sequence is defined as follows:

- Application: Order Management
- Name of sequence: xxxxxx (where xxxxxx stands for the Order Number Source Name)

- Type of sequence: Automatic
- Start value: Current unused value of sequence tied to Order Number Source being upgraded
- Start date: Start Date on the Order Number Source being upgraded. If null, then current date
- End date: End Date on the Order Number Source being upgraded.

For every active Order Type that is upgrade, an AOL Document Sequence Category is also created, as follows:

- Application: Order Management
- Document Sequence Category Code: nnnn (where nnnn stands for the Order Type ID)
- Name: xxxxxxxx (where xxxxxxxx stands for the Order Type Name)
- Description: xxxxxxxx (where xxxxxxxx stands for the Order Type Description)
- Table: OE_TRANSACTION_TYPES_ALL

The upgrade process also creates a document sequence assignment linking the document sequence to the document sequence category that was created. If an order number source was referenced by several order types, then multiple document sequence assignments are created linking the respective document categories to the document sequence.

Example

You have a order number source International Orders defined. It is assigned to the Order Type International (Order Type ID 1001).

The order number source International Orders is upgraded to an AOL Document sequence of type Automatic. This sequence is defined under the Order Management product with the name International Orders. We have described before how the Order Type is upgraded. An AOL document sequence category is also created with the code of 1001. This category is defined under the Order Management product with the name International. A document sequence assignment is also created linking the category to the sequence.

Note: The Profile Option Sequential Numbering needs to be set at the application and responsibility level to be able to number your orders in Order Management.

Upgrade Strategy for Cycles and Cycle History

The upgrade to Order Management uses the following strategy for upgrading cycle definition data and cycle history for orders and lines:

Upgrading Cycle Definition Data

All custom actions, approvals and result lookups are upgraded to Workflow entities. In Order Entry all cycles were user-defined. Cycles that are used by any open Orders are upgraded to workflow processes. Workflow process definitions are created dynamically during the Upgrade. The upgrade process calls the Workflow APIs (WF_LOAD APIs) to create workflow design time data.

Upgrading Cycle History

Cycle history for all open orders and lines is upgraded to workflow status tables. To achieve this the upgrade starts appropriate header flows for all open orders and line flows for all open lines.

Now, functions that have already been executed in the Order Entry should NOT get re-executed during the upgrade. For example, when you upgrade an order header that is booked and is eligible for closure (waiting for lines to close), it should not get re-booked in Order Management.

That is the header flow should skip activities that have already been executed and should reach functionally the same point in the flow that the Order was in its cycle before the upgrade. Thus on upgrade, a booked order waiting to close should be waiting inside the Close Order workflow sub-process, awaiting for its Line(s) to close.

This chapter discusses in detail how the following is achieved:

- Business functions that have already been executed in Order Entry, are skipped in Order Management
- Functionally the Order or line that is upgraded is in the same point in its Order Management flow as it was in its Order Entry cycle.

Upgrading User Defined Cycle Data

The following section discusses how each of the cycle components are upgraded to Workflow.

Upgrading Results and Cycle Action Results

The upgrade automatically creates data in WF_LOOKUPS for those records in SO_RESULTS that are referenced by custom actions (records in SO_ACTION_RESULTS). Based on the records in SO_ACTION_RESULTS, these results are automatically mapped to custom activities and notification activities.

The lookup is created under the OM Order Header workflow (OEOH) item type, if the action that a result was mapped was a header cycle action. The lookup is created under the OM Order Line (OEOL) workflow item type, if the action that a result was mapped was a line cycle action. A lookup type is created for every set of results used by a custom action or approval action.

The following naming convention is used for creating lookups types:

Lookup Type Code - UPG_RT_nn (Where nn stands for the Action ID)
Display Name - UPG_RT_xx (Where xx stands for the Action Name (first 26 characters))

The following naming convention is used for creating lookup codes:

Lookup Code - UPG_RC_nn (Where nn stands for the Result ID)
Meaning - XX (Where XX stands for the Result name)

Example: You have the following cycle results defined:

Table 27–3 Cycle Results

| Result Name | Result Description | Result Id |
|-------------|--------------------|-----------|
| Pass | Approval Passed | 1 |
| Fail | Approval Failed | 2 |

These are associated to a custom action Export Approval as follows:

Table 27–4 Export Approval

| Custom Action | Custom Action ID | Result | Passing |
|-----------------|------------------|--------|---------|
| Export Approval | 1001 | Pass | Yes |
| Export Approval | 1001 | Fail | |

The upgrade will create a Workflow lookup type as follows:

Table 27–5 Workflow Lookup Type

| Meaning | Lookup Type Code |
|----------------------------|------------------|
| UPG_RT_Export_ Approval | UPG_RT_1001 |

The upgrade will create the following workflow lookups under the above lookup type

Table 27–6 Workflow Lookup Type 2

| Meaning | Description | Lookup Code |
|---------|-----------------|-------------|
| Pass | Approval Passed | UPG_RC_1 |
| Fail | Approval Failed | UPG_RC_2 |

Seeded Cycle Actions

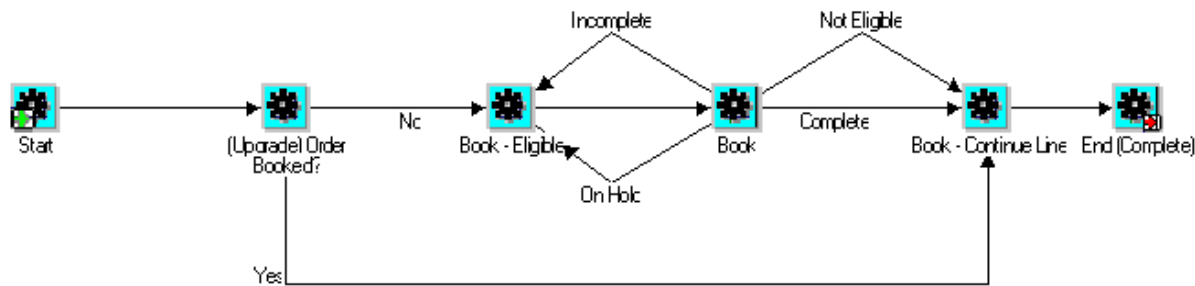
Seeded cycle actions are not upgraded. Rather, Order Management comes seeded with upgrade specific versions of all seeded functional workflow sub-processes. The upgrade process uses these sub-processes as building blocks for creating order and line workflow process definitions based on the cycle definitions.

These upgrade specific functional sub-processes are designed to detect whether the order or line is already past the respective business functions. They are also designed such that no processing happens during the upgrade.

Example

Upgrade Book: Order, Manual (UPG_BOOK_PROCESS_ASYNC)

Figure 27–3 Book - Order, Manual



This is the upgrade specific version of the seeded Book - Order, Manual sub-process.

If the Upgrade is running, the function (Upgrade) Order Booked? checks whether the Order is already booked. If not, it completes with No and the flow will hit the Book – Eligible block. Otherwise it completes with Yes and skips past the actual function that books an Order.

If the Upgrade is not running then the function (Upgrade) Order Booked? completes with a No.

The following table indicates the seeded Order Management WF sub-processes that various Order Entry seeded cycle actions map to:

Table 27–7 Header Cycle Actions

| Cycle Action ID | Cycle Action | WF Sub-process Internal Name | WF Sub-process Display Name |
|-----------------|------------------------|------------------------------|---------------------------------|
| 1 | Booking | UPG_BOOK_PROCESS_ASYNC | (Upgrade) Book - Order, Manual |
| 9 | Complete Order (Close) | UPG_CLOSE_ORDER_PROCESS | (Upgrade) Close - Order |

Table 27–8 Line Cycle Actions

| Cycle Action ID | Cycle Action | WF Sub-process Internal Name | WF Sub-process Display Name |
|------------------------|-----------------------|-------------------------------------|--|
| 1 | Booking | ENTER | * Enter - Line |
| 2 | Pick Release | UPG_SHIPPING_SUB | (Upgrade) Ship - Line |
| 3 | Ship Confirm | UPG_SHIPPING_SUB | (Upgrade) Ship - Line |
| 4 | Back Order Release | UPG_SHIPPING_SUB | (Upgrade) Ship - Line |
| 7 | Receivables Interface | UPG_LINE_INVOICE_INTERFACE_SUB | ** (Upgrade) Invoice Interface - Line |
| 8 | Complete Line (Close) | UPG_CLOSE_LINE_PROCESS | (Upgrade) Close - Line |
| 11 | Inventory Interface | UPG_SHIPPING_SUB | (Upgrade) Ship - Line |
| 12 | Demand Interface | UPG_SCHEDULE_LINE | (Upgrade) Schedule - Line |
| 13 | RMA Interface | UPG_RMA_RECEIVING_SUB | (Upgrade) Return Receiving - Line |
| 15 | Manufacturing Release | UPG_MODEL_MFG_RELEASE | (Upgrade) Manufacturing Release - Line |
| | | UPG_CONFIGURATION_LINE | *** (Upgrade) Create Supply Order - Line |
| 16 | Service Interface | UPG_SHIPPING_SUB | **** (Upgrade) Ship - Line |
| 17 | Purchase Release | UPG_PUR_REL_LINE | (Upgrade) Purchase Release - Line |

* is used when a line action has Booking as a prerequisite.

** indicates additional UPG_FUFILLMENT_SUB (Upgrade) Fulfill - Line) is also added before the invoicing process if the original cycle had Ship-Confirm or RMA Interface cycle actions.

*** is used in the flow created specifically for the Configured Item Line

**** indicates that Service Interface is obsolete in OM. Shipping behaves like a no-op for Service Lines

Cycle Action Pre-Requisites

Cycle action pre-requisites determined when an Order or Line became eligible for a certain cycle action. In Workflow transition information determines when a

particular workflow activity is executed. The upgrade creates this information based cycle action pre-requisites. Appropriate AND and OR activities are also created depending on the grouping of the records via the group number.

Custom Cycle Actions

Custom cycle actions are those actions that are not seeded and are not approvals actions. In Order Entry the processing for such a cycle action was done externally, and you needed to call C based Order Entry functions to move the Order or Line forward in its cycle based on the result of the custom action.

Such cycle actions are upgraded to special workflow block activities. The block activity is created under the workflow item type OM Order Header (OEOH), if the custom cycle action was a Header action. It is created under the workflow item type OM Order Line (OEOL), if the custom cycle action was a Line action.

The following naming convention is used when creating this special block activity:

Internal Name - UPG_AN_nn (Where nn stands for the ACTION ID)

Display Name - xxxxxxxxxxxx (Where xxxxxxxxxxxx stands for the Cycle Action Name)

This activity is defined to call the function OE_WF_UPGRADE_UTIL.UPGRADE_CUSTOM_ACTIVITY_BLOCK. An activity attribute is also created and it is set to the name of the S column (status column) that the custom cycle action was mapped to.

The procedure OE_WF_UPGRADE_UTIL.UPGRADE_CUSTOM_ACTIVITY_BLOCK does the following:

If the activity is executed when the Upgrade is running, then it retrieves the S Column name from its activity attribute. It then checks the S Column value for the order or line in Order Entry. If the S column has a value other than eligible (18) it completes the block with that value, using the upgraded workflow lookup code naming convention. If the S column has a value of Eligible (18) indicating that the order or line was eligible for the custom action, then it completes with NOTIFIED.

If the block activity is executed when the Upgrade is not running then it will complete with NOTIFIED to indicate that the order or line is eligible for external custom processing.

After you have successfully upgraded to Order Management, you need to complete such special blocks for upgrade orders or lines using the Workflow API WF_ENGINE.CompleteActivityInternalName() after completing the external processing that the custom cycle action did.

Example

A custom action is defined as following in Order Entry:

- Action ID: 1022
- Action Name: External Export Processing
- Result Table: SO_HEADERS_ALL
- Result Column: S11

It is used in a cycle International Ship. The cycle action becomes eligible once the Order is entered and it serves as a pre-requisite for the Pick Release Action.

The following records are defined for it in SO_ACTION_RESULTS:

Table 27–9 SO_ACTION_RESULTS

| Result Name | Result Id | Passing |
|-------------|-----------|---------|
| Pass | 1 | Yes |
| Fail | 2 | |

The cycle action is upgraded to a block activity that is defined under the workflow item type OM Order Header as follows:

- Internal Name: UPG_AN_1022
- Display Name: External Export Processing

It is tied to the Lookup UPG_RT_1022 that has the following two lookups:

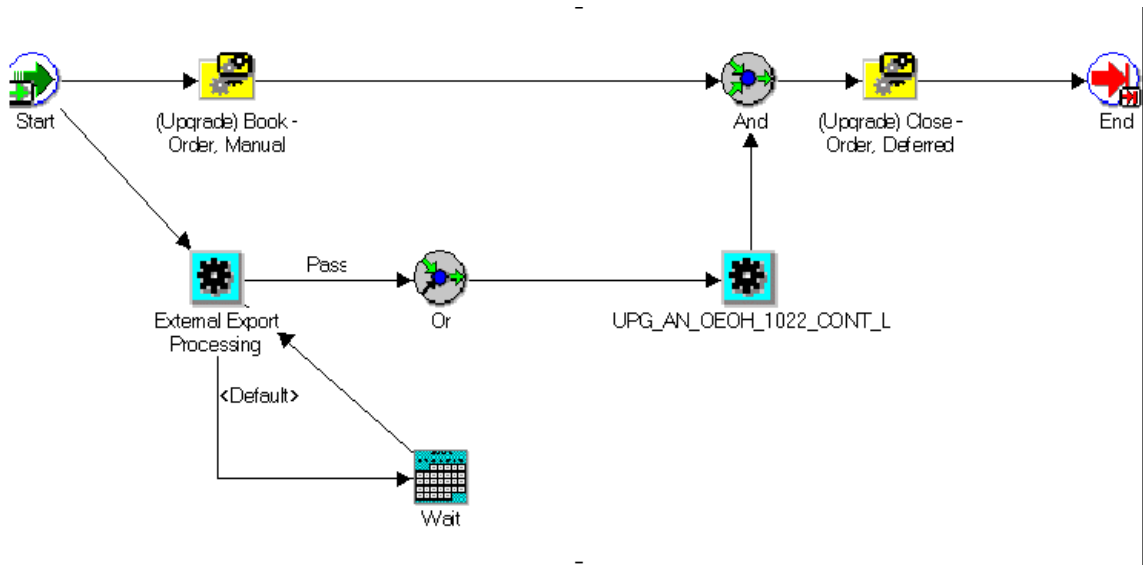
Table 27–10 Lookups

| Lookup Code | Lookup Meaning |
|-------------|----------------|
| UPG_RC_1 | Pass |
| UPG_RC_2 | Fail |

The activity attribute S_COLUMN on this block activity is set to the value S11.

When the cycle that uses this activity is upgraded,

The workflow process that is created when the cycle that uses this activity is upgraded is shown in [Figure 27–4](#).

Figure 27-4 Upgraded Cycle Activity Workflow

In the above process the block activity External Export Processing represents the upgraded cycle action. It calls the function `OE_WF_UPGRADE_UTIL.UPGRADE_CUSTOM_ACTIVITY_BLOCK`.

The function `UPG_AN_OEOH_1022_CONT_L` is created for handling the dependency of a Line action on this Header action.

When cycle history is upgraded, a header flows are started using this workflow process. If an Order was eligible for this custom action then the function External Export Processing sets itself to NOTIFIED.

If an Order was past this custom action with the Pass result then the block completes with a Pass (`UPG_RC_1`), thus it transitions to the continue-flow activity and then the flow transitions to the Close Order process. There it will wait for the lines to close.

If an Order was past this custom action with a Fail result then the block will complete with a Fail (`UPG_RC_2`) which transitions to the wait activity through the default transition. Post-upgrade this transition will revisit the block activity, which will set itself to NOTIFIED again. The transition back to the custom activity is done to mimic order cycles functionality, where an action when completed with a non-passing result could stay in that unprocessed state forever.

Now post-upgrade to handle orders that are eligible for this custom activity, you need to process these orders externally. To query orders that are eligible for this custom activity External Export Processing, you can query workflow item activity statuses as follows:

```
SELECT ITEM_KEY
FROM WF_ITEM_ACTIVITY_STATUSES_V
WHERE ITEM_TYPE = 'OEOH'
AND ACTIVITY_NAME = 'UPG_AN_1022'
AND ACTIVITY_STATUS_CODE = 'NOTIFIED'
AND SOURCE = 'R';
```

This query will return all the Orders (Header Ids) that are awaiting processing at this custom activity. On successfully completing the external processing you need to complete this block activity for each Order, to progress its flow.

You can do this by calling the Workflow API WF_ENGINE.COMPLETEACTIVITYINTERNALNAME with the following parameters:

- Item Type: OEOH
- Item Key: OE_ORDER_HEADERS_ALL.HEADER_ID for the Order that has been processed.
- Activity Name: UPG_AN_1022
- Result Code: UPG_RC_1

To handle the case where the Order fails the external processing, you can cancel the Order via the Sales Order Form, so that it can go ahead and close. You can also call the Process Order API Order (OE_ORDER_PUB.Process_Order) to cancel an order. See the Open Interfaces Manual for details on using this public API.

Approval Actions

Approval actions get upgraded to workflow notification activities. The upgrade also creates special pre-notification activities and message data for the notifications.

The notification and pre-notification activities are created under the workflow item type OM Order Header (OEOH) if the approval was a Order level approval action. They are created under the workflow item type OM Order Line (OEOL) if the approval was a Line level approval action.

The following naming convention is used when creating the notification activities:

- Internal Name: UPG_AN_nn (where nn stands for the Approval Action ID)

- Display Name: xxxxxxxxxxxx (Where xxxxxxxxxxxx stands for the Approval Action Name)

The activity is defined to be a high-cost activity to ensure that no notifications are sent when the upgrade is running.

The responder on the notification activity determines who the notification is sent to. This is set to default from the workflow item attribute Notification Approver.

For every usage of the approval action in a cycle, a pre-notification activity is also created. The following naming convention is used in creating pre-notification activities:

- Internal Name: UPG_AN_PNOT_nnn (where nnn stand for the WF instance Id of the Notification activity it precedes.)
- Display Name: UPG_AN_PNOT_nnn (where nnn stand for the instance Id of the Notification activity it precedes.)

This activity is defined to call the PL/SQL Function OE_WF_UPGRADE_UTIL.UPGRADE_PRE_APPROVAL

An activity attribute is also created and it is set to the name of the S column (column status column) that the approval cycle action was mapped to.

The procedure OE_WF_UPGRADE_UTIL. UPGRADE_PRE_APPROVAL does the following:

If the activity is executed when the Upgrade is running, then it retrieves the S Column name from its activity attribute. It then checks the S Column value for the order or line in Order Entry. If the S column has a value other than eligible (18) it completes with that value (using the upgraded lookup code naming convention).

If the S column has a value of eligible (18) indicating that the order or line was eligible for the approval, then it completes with Not Processed. If the pre-notification activity is executed when the Upgrade is not running then it will complete with Not Processed.

The Not Processed result from the pre-notification activity transitions to the respective notification activity.

A Notification activity needs to have a message tied to it. The upgrade creates a message for each approval, using the following convention:

- Display Name: xxxxxxxxxxxx (Where xxxxxxxxxxxx stands for the Approval action name)

- Message Subject: xxxxxxxxxxxx (Where xxxxxxxxxxxx stands for the Approval action name)

Message attributes are created that reference the seeded Header or Line Short Descriptor workflow item attributes, depending on whether this is a message for a Order level approval or a Line level approval.

- Example: An approval action is defined as following in Order Entry:
- Action ID: 1023
- Approval Action Name: Legal Approval
- Result Table: SO_HEADERS_ALL
- Result Column: S12

It is used in the cycle International Bill-Only. It becomes eligible once the Order is entered. It can complete with a Pending, Pass or Fail result. When it completes with a Pass, it serves as a pre-requisite for the Receivables Interface line action.

The following records are defined for it in SO_ACTION_RESULTS:

Table 27–11 SO_ACTION_RESULTS

| Result Name | Result Id | Passing |
|-------------|-----------|---------|
| Pass | 1 | Yes |
| Fail | 2 | |
| Pending | 30 | |

This approval action is upgraded to a notification activity under the workflow item type OM Order Header as follows:

- Internal Name: UPG_AN_1023
- Display Name: Legal Approval

It is tied to the Lookup UPG_RT_1023 that has the following two lookups:

Table 27–12 UPG_RT_1023

| Lookup Code | Lookup Meaning |
|-------------|----------------|
| UPG_RC_1 | Pass |
| UPG_RC_2 | Fail |

Table 27–12 UPG_RT_1023

| | |
|-------------------|---------------------------------|
| UPG_RC_30 | PP Pending |
| N N NOT_PROCESSED | NOT_PROCESSED_NOTN_ UPG_AN_1023 |

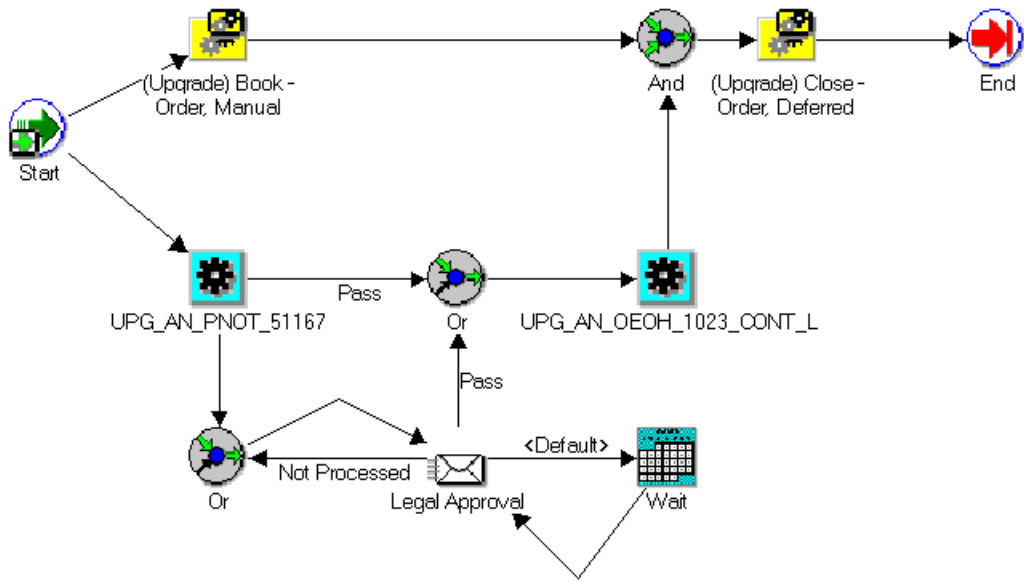
For every usage of the approval action in a cycle, a pre-notification activity is also created as follows:

- Internal Name: UPG_AN_PNOT_51167
- Display Name: UPG_AN_PNOT_51167

The activity attribute S_COLUMN on this pre-notification activity is set to the value S12.

When the cycle that uses this approval is upgraded, the flow that is created will look as follows:

Figure 27–5 Cycle with Upgraded Approval



The Pre-notification Activity UPG_AN_PNOT_51167 is placed before the Notification Legal Approval. It calls the function OE_WF_UPGRADE_UTIL.UPGRADE_PRE_APPROVAL.

If the Order is already past the approval with a Pass result then the pre-notification also completes with a Pass, transitions the flow to the continuation activity UPG_AN_OEOH_1023_CONT_L.

If the Header is eligible for the Approval then the pre-notification activity completes with a Not Processed, which transitions it to the Notification Activity, using OR.

If the Approval was completed with a result other than Pass (the passing result), the pre-notification activity completes with that result transitioning to the notification activity (via the default transition and Wait activity). Since the Notification Activity is created with a High Cost the flow is deferred when it reaches it. This transitioning back to the notification activity is done to mimic order cycles functionality, where an approval action when completed with a non-passing result could stay in that unprocessed state forever.

Post-Upgrade, you can respond to Notifications from the WF Notifications page. It is available off the Order Management menu. Notifications that the upgrade creates are all configured to go the role that is set with the profile option OM: Notification Approver.

Header and Line Action Dependencies

Order Entry cycles supported line actions having header actions as pre-requisites. In Workflow such parent-child co-ordination is achieved via wait-for-flow and continue-flow coordination activities. Coordination for Booking (Lines wait for Order to book) and Closure (Order waits for Lines to close) is handled by the upgrade specific versions of those seeded functional sub-processes.

However the following kinds of dependencies are handled dynamically when the cycle definitions are upgraded:

- Seeded Line actions having custom Header actions or approvals as pre-requisites
- Custom Line actions or approvals having custom Header actions or approvals as pre-requisites

For every such dependency two new activities are created. A continue flow activity at the Header level, that is placed immediately after the Header pre-requisite activity. It is named as follows:

- Internal/Display Name: UPG_AN_OEOH_nn_CONT_L (Where nn stands for the Action ID of the pre-requisite action)

A wait for flow activity at the Line level, that is placed immediately before the dependent Line action. It is named as follows:

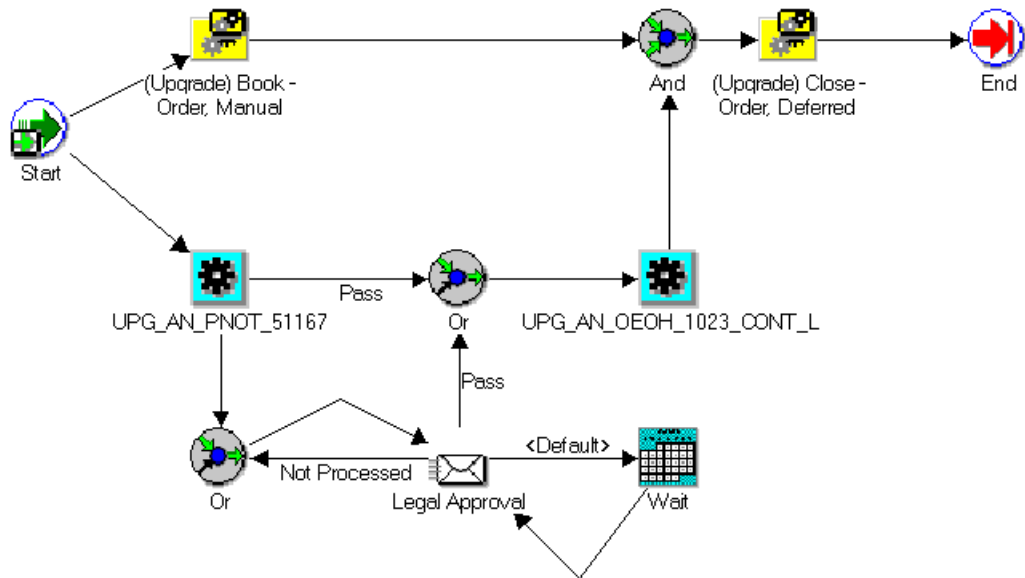
- Internal/Display Name: UPG_AN_OEOL_nn_WAIT_FOR_H (Where nn stands for the Action ID of the pre-requisite action)

Appropriate activity attributes are created for coordination. When more than 1 Line Action is dependent on the same Header action the code creates multiple wait-for-flow activities and then merges them, since WF supports only one Continue-flow activity linked to a single wait-for-flow activity.

Example

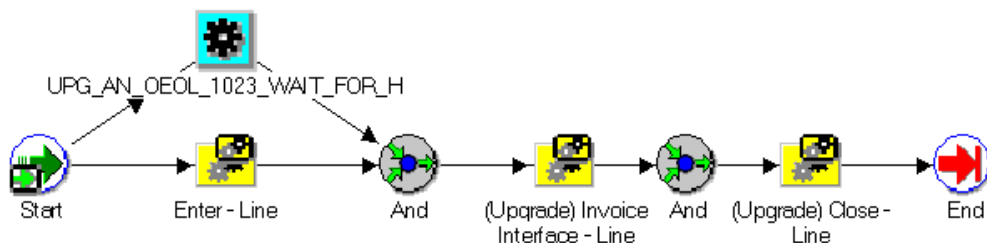
The cycle International Bill Only is defined such that the Line cycle action Receivables interface is dependent on the order being booked and the order having passed the Header level Legal Approval (Action ID is 1023).

The upgraded cycle header workflow definition is shown in [Figure 27-6](#).

Figure 27–6 Upgraded Cycle - Header Workflow Definition

The activity UPG_AN_OEOH_1023_CONT_L is positioned such that it is executed when the Notification Activity (Legal Approval) completes with a 'Pass' result. This is the continuation activity that signals the Line flows to continue.

The Line workflow definition is shown in [Figure 27–7](#).

Figure 27–7 Line Workflow Definition

The Enter Line activity is a seeded activity that handles Line dependency on Booking. It includes the coordination activity that makes the Line flow wait for Booking. The activity UPG_AN_OEOL_1023_WAIT_FOR_H is the WAIT_FOR_FLOW coordination activity that the Upgrade dynamically creates to handle the dependency on the Header Approval Action. As the process definition indicates both of these serve as prerequisites to Interface to Invoice Sub-process.

Cycle Definitions

Order Entry did not seed any cycles. Every user defined cycle that is referenced by open orders or lines is upgraded in to a Header workflow process and a Line workflow process. A Cycle that has the Manufacturing Release Action is upgraded into three workflow processes. The third one is a Line workflow process that is specific only for the Configured Item Line.

The upgrade specific functional sub-processes, special block activities (for upgraded custom cycle actions), pre-notification and notification activities (for upgraded approval actions), coordination activities (for dependencies), AND and OR activities (for pre-requisite groupings) that are described in the previous sections are used as building blocks to define workflow process definitions. The upgrade dynamically creates these process definitions based on the cycle definitions.

Header workflow process definitions are created based on all the header level cycle actions in the cycle. Line workflow process definitions are created based on all line level cycle actions in the cycle.

The following naming conventions are used to name these workflow processes:

- Header workflow process:
 - Internal Name: UPG_PN_OEOH_REG_nn (Where nn stands for the Cycle Id)
 - Display Name: UPG_PN_OEOH_REG_xxxxxxxxxxx (Where xx stands for the Cycle Name)
- Line workflow process:
 - Internal Name: UPG_PN_OEOL_REG_nn (Where nn stands for the Cycle Id)
 - Display Name: UPG_PN_OEOL_REG_xxxxxxxxxxx (Where xxx stands for the Cycle Name)
- Configured Item Line workflow process:
 - Internal Name: UPG_PN_OEOL_CFG_nn (Where nn stands for the Cycle Id)
 - Display Name: UPG_PN_OEOL_CFG_xxxxxxxxxxx (Where xxx stands for the Cycle Name)

Cycle Definitions that are NOT upgraded

Certain cycle definitions that were unsupported in Order Entry, have corrupt definitions or are extremely complex are not upgraded. If a cycle is not upgraded then any Open order referencing such a cycle is not upgraded either.

Workflow Process definitions are NOT created for the following kinds of cycles:

- A cycle that has no Complete Order cycle action. Order Entry required that you include the actions of Complete Line and Complete Order action at the end of all your order cycles.

To upgrade open Orders referencing such a cycle, you can do one of the following:

- Complete cancel the order thus closing it.
 - Add the Complete Order Header action to the cycle definition. Verify that the Create Dynamic Where Clauses Concurrent Program completes successfully.
- A cycle that has no Complete Line cycle action. Order Entry required that you include the actions of Complete Line and Complete Order action at the end of all your order cycles.

To upgrade open Orders referencing such a cycle, you can do one of the following:

- Completely cancel all the lines on the order thus closing them.
- Add the Complete Line cycle action to the cycle. Verify that the Create Dynamic Where Clauses Concurrent Program completes successfully.
- A cycle that has the Order or Line Cancel Action. Order Entry does not support defining cycles with the Cancel Action in them. It does not provide a program or a form to process orders or lines that are eligible for the Cancel Action.

To upgrade open Orders referencing such a cycle, you can do one of the following:

- Process all orders through the order cycle and close them using the Close Orders program.
- Verify that there are **NO** orders or lines eligible for the Cancel Action. And then take out the Cancel Action from the cycle. Verify that the 'Create Dynamic Where Clauses' Concurrent Program completes successfully.

If you were using the line cancel action in a cycle to cancel back-ordered lines, you can use the Order Management Under-Shipment feature. By setting the under-shipment tolerances appropriately you can ship partially but fulfill completely (thus obviating the need to cancel the un-shipped portion). Refer to the Order Management User Guide for more information on Over-Under Shipments.

- A Non-Ship Cycle that has the Inventory Interface Action

To upgrade open Orders referencing such a cycle, you can do one of the following:

- Process all orders through the order cycle and close them using the Close Orders program.
- Take out the Inventory interface action. This means that you have to manually decrement inventory for some transactions post-upgrade, unless you progress all open transactions past inventory interface before you upgrade. Verify that the Create Dynamic Where Clauses Concurrent Program completes successfully.
- A Cycle that has both the RMA Interface Action and the Purchase Release Action

To upgrade open Orders referencing such a cycle, you can do one of the following:

- Process all orders through the order cycle and close them using the Close Orders program.
- Process all open Orders to closure and then take out the Purchase release Action from the cycle. Verify that the Create Dynamic Where Clauses Concurrent Program completes successfully.
- Process all open Returns to closure and then take out the RMA interface Action from the cycle. Verify that the Create Dynamic Where Clauses Concurrent Program completes successfully.
- A Cycle that has a Line Action with:
 - More than one group in its pre-requisites (OR condition) AND
 - One of the groups has more than one pre-requisite action (AND condition) AND
 - Such a group has a header action as one or more of its pre-requisite actions

To upgrade open Orders referencing such a cycle, you can do **one** of the following:

 - Process all orders through the order cycle and close them using the Close Orders program.
 - Convert the AND conditions to OR conditions. This may not be feasible to do while retaining the same functionality. It will also result in some actions becoming eligible post-upgrade that would not have become eligible pre-upgrade, because an AND condition was not met. Verify that the Create Dynamic Where Clauses Concurrent Program completes successfully.
- A Cycle that does not have records in the table `so_action_results` for those actions-result combinations that serve as prerequisites for other actions in that cycle. This is a case of data corruption that can happen when you define cycles without using the Application Forms.

To upgrade open Orders referencing such cycles, you can do one of the following:

Process all orders through the order cycle and close them using the Close Orders program.

Create the required records in `SO_ACTION_RESULTS` via the Define Action Results form.
- A Cycle that has Header level actions dependent on Line level actions. Order Entry does not support such a definition.

To upgrade open Orders referencing such a cycle, you can do one of the following:

- Process all orders through the order cycle and close them using the Close Orders program.
- Take out the dependency of the Header level action from the Line Level action. Ensure that the header action is now dependent on some other Header level action. Verify that the Create Dynamic Where Clauses Concurrent Program completes successfully.
- In Order Entry the cycle actions of Pick Release, Back Order Release and Ship-Confirm have to be used in a certain way. A Cycle that has the Ship-Confirm cycle action and it has as its pre-requisites actions other than Pick Release or Back Order Release is not supported.
 - To upgrade open Orders referencing such a cycle, you can do one of the following:
 - Process all orders through the order cycle and close them using the Close Orders program.
 - Ensure that all open lines using this cycle are before the Pick Release action. That is the line status columns for Pick Release, Back Order Release and Ship-Confirm have null values. If they are not, then process those lines to closure. Change the cycle definition so that the Ship-Confirm Action does not have as its pre-requisite an action other than Pick Release or Back Order Release. Verify that the Create Dynamic Where Clauses Concurrent Program completes successfully.
- In Order Entry the cycle actions of Pick Release, Back Order Release and Ship-Confirm have to be used in a certain way. A cycle that has the Back Order release cycle action and it has as its pre-requisite an action other than Ship-Confirm is not supported.

To upgrade open Orders referencing such a cycle, you can do one of the following:

- Process all orders through the order cycle and close them using the Close Orders program.
- Ensure that all open lines using this cycle are before the Pick Release action. That is the line status columns for Pick Release, Back Order Release and Ship-Confirm have null values. If they are not, then process those lines to closure. Change the cycle definition so that the Back Order Release Action does not have as its pre-requisite an action other than Ship-Confirm. Verify

that the Create Dynamic Where Clauses Concurrent Program completes successfully.

- In Order Entry the cycle actions of Pick Release, Back Order Release, Ship-Confirm, and Inventory Interface had to be used in a certain way. A cycle that has the Ship-confirm and Inventory Interface cycle actions and the Inventory Interface action has as its pre-requisites an action other than Ship-Confirm or Service Interface is not supported.

To upgrade open Orders referencing such a cycle, you can do one of the following:

- Process all orders through the order cycle and close them using the Close Orders program.
- Ensure that all open lines using this cycle are before the Pick Release action. That is the line status columns for Pick Release, Back Order Release, Ship-Confirm, Inventory Interface and Service Interface have null values. If they are not, then process those lines to closure. Change the cycle definition so that the Inventory Interface Cycle Action does not have as its pre-requisite actions other than Ship-Confirm or Service Interface. Verify that the Create Dynamic Where Clauses Concurrent Program completes successfully.
- To upgrade open Orders that reference a cycle that has the Enter action in it and with a pre-requisite definition based on it, you can do one of the following:
 - Process all orders through the order cycle and close them using the Close Orders program.
 - Change the cycle definition so that there is no pre-requisite based on the Enter action.

A Pre-upgrade script (ontexc08.sql) is provided that identifies such non-upgradable cycles. Run this script before the upgrade and take corrective actions as needed. You must re-run the script to ensure that no exceptions are listed.

Mapping of Cycle entities to Workflow

Cycle definition data maps to Workflow definitions data as follows:

Table 27–13 Cycle Definition Data Mapping

| R11 Tables for Order Cycle Definition | R11i WF tables for Flow Definition |
|--|---|
| SO_ACTIONS | WF_ACTIVITIES |
| SO_ACTION_PRE_REQS | WF_ACTIVITY_TRANSITIONS |
| SO_ACTION_RESULTS | WF_ACTIVITIES, WF_LOOKUPS |
| SO_CYCLES | WF_ACTIVITIES |
| SO_CYCLE_ACTIONS | WF_PROCESS_ACTIVITIES |
| SO_RESULTS | WF_LOOKUPS |

Workflow is architected very differently from Cycles and hence the workflow process definitions that the upgrade creates are not optimal. The upgrade process follows certain heuristics to create process definitions that are functionally equivalent to the cycle definition. In doing so it creates extraneous 'and' and 'or' activities.

These upgraded workflow process definitions use the upgrade specific functional sub-processes, that have these additional activities that do special stuff when the cycle history is upgraded. For these reasons it is very strongly recommended that you DO NOT use these flows for processing new order and lines.

Upgrading Order Type - Cycle Assignments

Order Management has Transaction Types; Order Types and Line Types. Header workflow processes are assigned to Order Types. Line workflow processes are assigned to Order Type, Line Type and Item Type combinations. See Also Users Guide - Workflow Assignments for details.

We have described how Order Types are upgraded to Order and Line transaction types. The upgrade also creates workflow assignments for these transaction types. These workflow assignments are for use by the upgraded orders and lines only and hence are end dated. To be able to use the upgraded Order and Line transaction types for new orders and lines, you need to define new workflow assignments.

For every Order Type that is upgraded, a workflow assignment is created as follows:

Table 27–14 Order Type - Created Workflow Assignments

| Column | Value |
|--------------|--|
| Order Type | Order Type that is upgraded |
| Process Name | UPG_PN_OEOH_REG_xxx (where xxx stands for the cycle name that the Order Type referenced) |
| Start Date | The Start Date on the original Order Type |
| End Date | sysdate (Since this assignment is for upgraded orders ONLY) |

For every new Line Type that is created for an upgraded Order Type a line workflow assignment is created as follows:

Table 27–15 Line Type - Created Workflow Assignments

| Column Name | Value |
|--------------|---|
| Order Type | Order Type that is upgraded |
| Line Type | Line Type that is automatically created for this Order |
| Item Type | NULL |
| Process Name | UPG_PN_OEOL_REG_xxx (where xxx stands for the cycle name that the Order Type referenced). |
| Start Date | The Start Date on the original Order Type |
| End Date | sysdate (Since this assignment is for upgraded lines ONLY) |

If the cycle that the original Order Type references has Manufacturing Release, then we additionally create the following workflow assignment for supporting the Configured Item Line.

Table 27–16 Configured Line Item - Created Workflow Assignments

| Column Name | Value |
|-------------|--|
| Order Type | Order Type that is upgraded |
| Line Type | Line Type that is automatically created for this Order |
| Item Type | Configured Item |

Table 27–16 Configured Line Item - Created Workflow Assignments

| | |
|--------------|--|
| Process Name | UPG_PN_OEOL_CFG_xxx (where xxxx stands for the cycle name that the Order Type referenced). |
| Start Date | The Start Date on the original Order Type |
| End Date | sysdate (Since this assignment is for upgraded lines ONLY) |

Upgrading Cycle History

Cycle History is upgraded to Workflow Status Tables only for all Open Orders and Lines. Upgrading cycle history is a very expensive operation and you are advised to run the Close Orders program to close all Orders/Lines that are eligible to close before the upgrade.

Supported and Unsupported Cycle States

Order and Lines need to be in certain cycle states in order to be upgraded. A pre-upgrade script (ontexc07.sql) identifies Orders and Lines in unsupported cycle states. You need to run this script and handle the exceptions it lists. You can move such orders or line forward to a supported cycle state using Order Entry concurrent programs or forms.

Cancellation Status History

In Order Management partial cancellation is supported as a direct update of the ordered quantity. Partial cancellation status is not tracked via Workflow. Cancellation history is stored in lines history table (OE_ORDER_LINES_HISTORY).

When an Order or Line is fully cancelled its flow is automatically transitioned to the Close Order or Close Line activity and the Order or Line is closed. In Order Entry, an Order Header or Line were closed on full cancellation as well. This means that cycle history for fully canceled (hence closed) Orders/Lines is not upgraded.

Null Cycle Statuses

A Null Status for any S Column is supported, since it indicates that the order or line has not reached that cycle action yet or its cycle does not have that cycle action in it.

Seeded Partial Line Action Statuses

Order Management does not store partial statuses **. In OM, when a Line is partially processed it splits, so that the processed part progresses in its own flow and the new line created awaits processing.

Example: A line is ship-confirmed partial. The system splits it into two lines. The original line will complete the Ship-Line activity and move on to fulfill and invoice interface. The new line created gets its own flow and will wait at the Ship-Line activity, awaiting to be picked and shipped.

When an order line with a partial status is upgraded to Order Management, it is automatically split into multiple lines depending on the number of line details or picking line details that it is tied to.

** - Invoice Interface is an exception here, it can partially invoice interface a line when all its required for revenue components are not fulfilled.

Supported Header Seeded Cycle Action Statuses

The following table summarizes the supported state and unsupported cycle states for order headers.

Table 27–17 Supported and Unsupported Cycle States for Order Headers

| S Column | Seeded Cycle Action | Unsupported Cycle States | Supported States other than null and not applicable(8 or 24) | Where is the Order flow after the upgrade? |
|-----------------|----------------------------|---------------------------------|---|--|
| S1 | Booking | | 1 - Booked | Will skip past actual Booking function |
| | | | 5 - Partial | Will be Book eligible |
| | | | 15 - Entered | Will be Book eligible |
| | | | 18 - Eligible | Will be Book eligible |
| S4 | Cancel Order | | 11 - Complete | Please look at above section on Cancellation Status History |
| | | | | 8 or 24 not supported for S4 since Cancel Action cannot be used in a cycle. |
| S6 | Close/Complete | | 18 - Eligible | In Order Management it would become eligible for closure. Will close once all lines have closed. |
| | | | 10 | Status history not upgraded for Closed Orders |

Supported Order Line Seeded Cycle Action Statuses

The following table summarizes the supported state and unsupported cycle states for order lines.

Table 27–18 Supported and Unsupported Cycle States for Order Lines

| S Column | Seeded Cycle Action | Unsupported Cycle States | Supported States other than null and not applicable(8 or 24) | Where is the line flow after the upgrade? |
|-----------------|----------------------------|---------------------------------|---|---|
| S2 | Pick Release | | 18 - Eligible | This equates to 'Awaiting Shipping' |
| | | | 4 - Released, NO OPEN Pick Slips | If not shipped, This equates to 'Awaiting Shipping' |
| | | | 5 - Partial | Line is split as part of upgrade. If not shipped, This equates to 'Awaiting Shipping' |
| S3 | Back Order Release | | 18 - Eligible | This equates to 'Awaiting Shipping' |
| | | | 5 - Partial | Line is split as part of upgrade. If not shipped, This equates to 'Awaiting Shipping' |
| | | | 4 - Released, NO OPEN Pick Slips | If not shipped, This equates to 'Awaiting Shipping' |
| S4 | Ship Confirm | 18 - Eligible | | |
| | | | 5 - Partial | Line is split as part of upgrade. The Ship-confirmed Line will skip past Ship-Line. The other will be 'Awaiting Shipping' |
| | | | 6 - confirmed | Will skip past 'Ship Line' activity. |
| | | | 7 - Backordered Complete | This equates to 'Awaiting Shipping' |
| | | | 22 - Backordered Partial | Line is split as part of upgrade. If not shipped, this equates 'Awaiting Shipping' else it will skip past Ship-Line. |

Table 27–18 Supported and Unsupported Cycle States for Order Lines

| S Column | Seeded Cycle Action | Unsupported Cycle States | Supported States other than null and not applicable(8 or 24) | Where is the line flow after the upgrade? |
|-----------------|----------------------------|---------------------------------|---|--|
| S5 | Receivables Interface | | 18 - Eligible | This equates to Invoice Interface eligible. If a line was partially invoiced due to unfulfilled Required For Revenue components then post-upgrade the invoice interface function will push it to the RFR block activity. |
| | | | 9 - Interfaced to AR | This will skip past the Invoicing Sub-process. |
| | | | 5 - Partial | This equates to Invoice Interface eligible. If a line was partially invoiced due to unfulfilled Required for Revenue components then post-upgrade the invoice interface function will push it to the RFR block. |
| S6 | Close/Complete | | 18 - Eligible | In OM it would become eligible for closure. |
| | | | 10- Closed | Status History not upgraded for Closed Lines |
| S8 | Inventory Interface | 18 - Eligible | | |
| | | 13 - Interfaced Error | | |
| | | | 5 - Partial | Line is split as part of upgrade. The Ship-confirmed Line will skip past Ship-Line. The other will be 'Awaiting Shipping'. |
| | | | 14 - Interfaced | This equates to ship-confirmed (in a ship flow) and thus 'Awaiting fulfillment'. |
| S9 | Cancel Line | | 5 - Partial | Please look at above section on Cancellation Status History. |
| | | | 11 - Complete | 8 or 24 not supported for S4 since Cancel Action cannot be used in a cycle. |

Table 27–18 Supported and Unsupported Cycle States for Order Lines

| S Column | Seeded Cycle Action | Unsupported Cycle States | Supported States other than null and not applicable(8 or 24) | Where is the line flow after the upgrade? |
|-----------------|----------------------------|---------------------------------|---|--|
| S25 | Service Interface | 18 - Eligible | 14 - Interfaced | Service Interface has no corresponding WF activity in Order Management. |
| S26 | Purchase Release | | 18 - Eligible | This equates to it being Purchase Release Eligible. |
| | | | 14 - Interfaced | This equates to skipping Purchase Release and being eligible at the Ship-Line Block. |
| | | | 6 - Confirmed | This will skip both Purchase Release and the Ship-Line Block. |
| | | | 5 - Partial | The Line is split as a result of the upgrade. The received line will skip past ship-Line, the other will be "Awaiting Shipping". |
| S27 | Manufacturing Release | 4 - released | | . |
| | | 20 - WO partially completed | | |
| | | 21 - WO created | | |
| | | 23 - Configuration created | | |
| | | | 18 - Eligible | For the Model Line, this equates to being Create Configuration Eligible. For the Class and Option Lines this equates to "Awaiting Fulfillment". |
| | | | 19 - Work Order Completed | For the Model Line this equates to being ATO fulfillment eligible (Wait for CTO block). For the Class and Option Lines this equates to "Awaiting Fulfillment". For the configured item Line this equates to "Awaiting Shipping". |
| S28 | Demand Interface | | eligible - 18 | This equates to scheduling eligible |

Table 27–18 Supported and Unsupported Cycle States for Order Lines

| S Column | Seeded Cycle Action | Unsupported Cycle States | Supported States other than null and not applicable(8 or 24) | Where is the line flow after the upgrade? |
|-------------|------------------------|-----------------------------|--|---|
| | | | interfaced - 14 | This equates to will be eligible at for the next activity in the flow. |
| S29 | RMA Interface | | eligible - 18 | This equates to 'Wait for receiving' |
| | | | partially accepted - 16 | Line will be split as part of Upgrade. If not received, This equates to 'Wait for receiving', else it will be at eligible for the next activity. |
| | | | interfaced - 14 | If not received, This equates to 'Wait for receiving' |
| | | | completely accepted - 17 | It is past the Return Receipt sub-process |

Note: For the Manufacturing Release cycle action, the Order Management upgrade process only upgrades lines in the following statuses: Eligible or WO Complete. If you cannot complete all your open work orders in time for the upgrade, you can do the following before the upgrade:

Request the ARU for bug 1504523.

For lines that are mfg release - released: Run the pre-upgrade script that the ARU provides.

For lines that are mfg.-release - config created you need to delink the config item and run the pre-upgrade script the ARU provides.

For lines that are mfg-release - wo open or partial (no shipped items), you need to delink the WO, delink the item and run the pre-upgrade script that the ARU provides.

The script picks up scheduled ATO lines (model, class, option) that are mfg release - released and updates their cycle state to mfg release - eligible.

After running this update script you should re-run the pre-upgrade script `ontexc07.sql` to confirm that such lines no longer show-up in the exception report.

After successfully upgrading you can re-link the Config Items using the Link Item action in the Sales Order Form, and link Work Orders using the WIP Discrete Jobs form back to the order lines.

Supported Custom Action Statuses

The Order Management upgrade supports upgrading orders and lines that are eligible for OR past a custom action. As described before the custom action is upgraded to a special workflow block activity. If an order or line was eligible for a custom action, after the upgrade the flow for the order or line will be stopped at the corresponding block activity, which will be in a NOTIFIED state.

If the order or line was past the custom action, then the block activity would get completed with that result.

Pending cycle states (have completed with a non-passing result temporarily) for custom actions are supported as well. In this case too after the upgrade, block activity will be in a NOTIFIED state after the Workflow Background Engine has run.

Supported Approval Statuses

The Order Management upgrade supports upgrading orders and lines that are eligible for OR past an approval. As described before, approval actions are upgraded to WF notification activities. If an order or line was eligible for an approval, on upgrade the corresponding notification will be sent out after the Workflow Background Engine runs.

If the order or line was past the approval action then the pre-notification activity completes with that result thus skipping the notification activity.

Pending approval states (have completed with a non-passing result temporarily) for approval actions are supported as well. In this case the notification will be re-sent after the Workflow Background Engine runs.

Note: Order and Line Approval History data (SO_ORDER_APPROVALS, SO_LINE_APPROVALS) is not upgraded. Order Management provides a special form that allows you to view this Order Entry data for upgraded orders and lines.

Flow Creation for Upgraded Orders and Lines

One of the last tasks that the Order Management Upgrade does is the flow creation for the upgraded order headers and lines. This is done to upgrade cycle status history to workflow status information.

For every order that was successfully upgraded to Order Management, the upgrade process does the following:

As we described before cycle definitions are upgraded to workflow processes definitions. A header flow is started for the Order Header, using the header workflow process that maps to the cycle it referenced in Order Entry. The Header ID is used as the item key for the header flow.

For every line on the order, a line flow is started using the line workflow process that maps to the cycle it referenced in Order Entry. The Line ID is used as the item key for the line flow.

Example

An Order has a standard item line. The order uses the cycle International Bill - Only. This is the cycle we discussed in the Header and Line Action Dependencies. The order is booked and eligible for the Legal Approval cycle action. The line is waiting for the Order level approval to complete. The cycle gets upgraded into a header workflow process (UPG_PN_OEOH_REG_International Bill-Only) and a line workflow process (UPG_PN_OEOL_REG_International Bill-Only). The upgrade process starts a header flow for the order using the process UPG_PN_OEOH_REG_International Bill-Only. The flow will stop at the notification activity Legal Approval. A line flow is started for the line will be waiting for the Legal Approval to complete (wait-for-flow coordination activity). After successfully upgrading when you start the Workflow Background Engine, the notification will get sent out to the role specified in the profile option OM: Notification Approver.

After successfully upgrading you need to complete certain post-upgrade steps. In one of the post-upgrade steps, you need to run a script that updates workflow item attributes for all the upgraded orders and lines.

Post-Upgrade steps that affect the Cycle History Upgrade

To be able to process upgraded orders and lines you need to complete all post-upgrade steps. Some steps involve the setting of certain profile options and others involve running an update script:

Profile Option - OM: Context Responsibility for Upgraded Orders

In Order Management, for every Order and Line the following WF item attributes are set:

- User ID (USER_ID): The user that created the Order/Line
- Responsibility ID (RESPONSIBILITY_ID): The responsibility that was used to create the Order/Line
- Application ID (APPLICATION_ID): The application that was in effect when the Order/Line was created.

These item attributes are used to set application context when deferred flows are picked up by the Background Engine for processing. The application context determines the Operating Unit (Org) the environment is pointing to and the profile options that are in effect.

For upgraded orders and lines, the first item attribute can be set based on the created_by column on the Orders and Lines. To set the other two you need to complete certain manual post-upgrade steps.

As part of your Order Management Implementation you will be setting up new Order Management responsibilities and assigning them to users that create and manage orders. A post-upgrade script (ontupg48.sql) lists all the unique Users (who have created Order/Lines) for each Operating Unit. Another post-upgrade script (ontupg49.sql) lists *exceptions*; Users who have multiple responsibilities pointing to an Operating Unit or no responsibilities at all. For the former case you need to set the *OM: Context Responsibility for Upgraded Orders* (to Yes) on ONE of the responsibilities. In the latter case you need to assign that user an appropriate responsibility that has all the required profiles set appropriately.

When the script (ontupg49.sql) lists no exceptions, it means that when you run the script (ontupg255.sql in a later post-upgrade step) to update the workflow item attributes, it can easily identify the context responsibility to use for every order and line, based on the user that created it and the operating unit it was created in. If the script ontupg49.sql returns any record, stop and review the result of ontupg48.sql and setup the responsibilities appropriately until ontupg49.sql returns an empty report.

Example

A sample listing (ontupg48.lst) produced by the script ontupg48.sql:

Listings Report

Table 27–19 Distinct Operating Unit Listing in OE

| Org ID | Organization |
|--------|-----------------------------|
| 204 | **US** Vision Operations US |
| 498 | Vision ADB |
| 600 | Vision Project Mfg |

Table 27–20 Users Who Created Orders or Lines and their Operating Units In OE

| User ID | Name | Org ID | Organization |
|---------|---------|--------|------------------------------|
| 1894 | NDSMITH | 498 | Vision ADB |
| 1894 | NDSMITH | 204 | **US** Vision Operations US |
| 1737 | ECLARKE | 600 | Vision Project Manufacturing |
| 1001 | VISION | 204 | **US** Vision Operations US |
| 2501 | DMARTIN | 600 | Vision Project Manufacturing |

This example has four distinct Users who have access to three distinct Operating Units, in which they have created Orders or Lines. You can create three new Order Management or non-OM (if you plan to use a Custom Application on top of OM) responsibilities. The example indicates a Multi-Org installation, hence the MO: Operating Unit profile option has to be set to the appropriate value on each of these new responsibilities. Set OM: Context Responsibility for Upgraded Orders to Yes on each of these responsibilities, thus flagging them for cycle history Upgrade usage. Set other profile options that need to be set for processing orders.

Now assign these new responsibilities appropriately to the four Users, so that they continue to have access to the same Orgs that they did in the previous release.

The user NDSMITH has access to two operating units, so you would assign him two different responsibilities. Both of which are flagged to be used as context responsibilities for the operating units that they are pointing to.

To validate the responsibilities settings for user/org combination which was done in this step, run the script ontupg49.sql. If you find any errors in the report produced by this script, correct the settings and run the script again to ensure that the settings are correct.

Profile Option - OM: Notification Approver

In Order Entry any user who had access to the Approve Orders form could approve an order or a line that was eligible for an approval. As discussed before, approval cycle actions are converted to workflow notification activities. Notifications that require a response need to be sent to a WF Role.

The OM: Notification Approver Profile option setting determines, to whom these upgraded notifications are sent. You can set this profile option at the Site, Application, Responsibility or User level. It can be set to any Workflow role (Application Responsibility or User).

To get functionality akin to Order Entry Approvals, you can set it to an Application Responsibility. Setting this profile at a Responsibility level enables the user at a minimum to have a different approver role for a given Operating Unit.

If the profile OM: Notification Approver resolves to a null value for a given User, Responsibility and Application on an Upgraded Order or Line, then the notification will be sent to the SYSADMIN user.

As we described in the section on upgrading approval actions, the responder on the Notification Activity is set to default from the workflow item attribute Notification Approver. This workflow item attribute is set by a script (ontup255.sql in a later post-upgrade step), based on the value of the profile option OM: Notification Approver.

Updating WF Item Attribute Values for Upgraded Orders and Lines

When Order Management starts a header or a line flow, it also sets certain workflow item attribute values.

When the upgrade starts flows for upgraded orders and lines, it sets some of these attributes. But to be able to set certain others, you need to complete certain manual post-upgrade steps and then run a script that will update these attributes.

As described before, you need to assign (Order Management) responsibilities to all the users that the post-upgrade script ontupg48.sql lists. You need to ensure that the script ontupg49.sql lists no exceptions. You also need to set the OM: Notification Approver Profile option as required.

Now you can run the script ontupg255.sql that updates the following workflow item attributes for all upgraded order and line flows:

Responsibility ID (RESPONSIBILITY_ID)

Application ID (APPLICATION_ID)

Notification Approved (NOTIFICATION_APPROVER)

Start the Workflow Background Engine for the Order Management workflow items (OM Order Header, OM Order Line) ONLY after you have successfully completed all the post-upgrade steps.

Cycles Upgrade and other Order Entry features

Cycles Upgrade and Security Rules

In Order Entry you could define security rules based on cycle state. The upgrade to Order Management does not upgrade user defined security rules for the following reasons:

- Order Management is much more flexible than R10/11 Order Entry. You are advised to review your Security Rules and decide whether you still need these with the new product.
- The Order Management Constraints Framework allow definition of Role based constraints. You may want to take advantage of that.
- The Order Management Data Model is very different from the Order Entry one and security rules cannot be automatically & unambiguously upgraded.

When you need to define constraints based on upgraded approvals, note the following:

The Processing Constraints Framework lets you define constraints based on workflow state.

As described before, the upgrade notification processes are defined such that the actual notification activity is skipped if the Order or Line was already past that approval action in Order Entry. This means that you cannot define constraints based only the notification activity. You also need to define it based on the pre-notification activity.

Example

Payment Terms on the Order cannot be changed once it has passed the Legal Approval.

To support this the constraint needs to be defined with the following conditions:

- The order is past the Legal Approval Notification Activity with a Pass result.
- OR

- The order is past the pre-notification Activity that precedes the Legal Approval with a Pass result.
- The previous sections describe how notification and pre-notification activities are named.

Cycles Upgrade and Holds

In Order Entry you could define generic or cycle action specific holds. The upgrade migrates all user defined hold definitions and other holds data. Cycle action specific holds that were based on non-seeded cycle actions get upgraded as generic holds. Cycle Action specific holds that were based on seeded cycle actions get upgraded to activity specific holds.

If an Order or Line was not getting processed in Order Entry on account of a Hold, it will get held up in Order Management as well on upgrade.

Example

An Order in the old system cannot book due to a generic hold on the Order. It remains booking eligible. On upgrade it is Booking eligible. When you attempt to book it, the operation will fail because of the generic hold.

Note: Notification Activities do not honor Holds in Order Management. If you want your custom activities to honor holds, then your external process needs to check for holds. See Also “Using Workflow in Order Management”.

Migration/Upgrade from Order Types

If you are a customer upgrading from a previous release of Order Entry to Order Management your existing order types will be upgraded to new order and line transaction types. Your existing order cycles will be upgraded to new order and line workflow processes. Do not use these upgraded workflows for your new orders. They include many activities which check for status and are necessary for upgraded orders but are very inefficient for new orders. As part of the upgrade you should set up the flows associated with your upgraded transaction types as either seeded or custom flows which were created for new OM orders.

Also note that your existing order number sources are upgraded to document sequences. Document sequence categories are created for your upgraded order types, and these are assigned to the correct sequences. Normally, they do not need modification.

Order Management Profile Option Migration

This listing starts with the old profile options from Order Entry and maps them to new profiles in Order Management if they exist. New Order Management Profile Options are listed at the end of the table. For more information about these profile options and how they are used, please refer the *Basic Setup* chapter of this manual.

Profile Options

Table 27–21 Profile Options

| OE Profile Option (Old) | OM Profile Option (New) | Description of the OM Profile Option |
|---|----------------------------|---|
| WSH: Allow Future Departure Date | N/A | No equivalent profile option in OM/WSH |
| OE: Apply Order Adjustments to Service Lines | N/A | No equivalent profile option in OM. |
| OE: Configurator Display Mode | N/A | No equivalent profile option in OM. |
| OE: Cycle Action Changes Affect Existing Orders | N/A | No equivalent profile option in OM. |
| OE: Customer Relationships | OM: Customer Relationships | Obsolete. Replaced by a system parameter setup. |
| OE: Debug Level | OM: Debug Level | This profile option determines the level of debug messages printed in a OE Debug log file. To print all messages set it to 5 and for no messages set it to NULL. |
| OE: Default RMA Status | N/A | No equivalent profile option in OM. |
| OE: Debug | OM: Debug Level | This profile option can also be used for getting the OM Debug file for concurrent programs. |
| OE: Debug Trace | N/A | No equivalent profile option in OM. |
| OE: Default CP Selection Attribute | N/A | No equivalent profile option in OM. |
| OE: Discounting Privilege | OM: Discounting Privileges | Privileges to apply/Modify price adjustments (e.g. Discounts, Surcharges etc.) The possible values are: Unlimited, Full, Non-Overridable Only, None. |

Table 27–21 Profile Options

| OE Profile Option (Old) | OM Profile Option (New) | Description of the OM Profile Option |
|--|------------------------------------|--|
| OE: External Pricer Installed | N/A | No equivalent profile option in OM. |
| WSH: Enforce Freight Carrier At Ship Confirm | N/A | No equivalent profile option in OM/WSH |
| OE: Force Valid Configurations | N/A | No equivalent profile option in OM. |
| OE: GSA Discount Violation Action | OM: GSA Discount Violation Action | Controls what to do if the Pricing Engine returns a GSA Violation. Works with QP: Verify GSA Violations |
| OE: Immediate Inventory Update | N/A | No equivalent profile option in OM/WSH. |
| OE: Included Item Freeze Method | OM: Included Item Freeze Method | It determines the date and time Order Management uses to determine the included items for a configuration's bill of material. |
| WSH: Invoice Numbering Method | OM: Invoice Numbering Method | Determines whether invoices numbers are automatically generated or are mapped to the delivery name |
| Tax: Invoice Freight as Revenue | Tax: Invoice Freight as Revenue- 1 | If profile option TAX: Allow Tax Code Override is set to YES, and profile option TAX: Invoice Freight as Revenue is set to YES, then freight charges are treated as revenue lines, and Invoicing module passes along VAT tax information and sales credits for them. |
| Tax: Inventory Item for Freight | Tax: Inventory Item for Freight- 1 | Invoicing module passes this item for freight charges treated as revenue lines. |
| OE: Inventory Stock Location | N/A | No equivalent profile option in OM. |
| OE: Item Flexfield | OM: Item Flexfield | This profile option specifies the name of the flexfield structure of the System Items flexfield |
| OE: Item Validation Organization | OM: Item Validation Organization | Obsolete. It has been replaced by System Parameters functionality. |
| OE: Item View Method | OM: Item View Method | The method to be used in the Order Management Order Form Options Window for item LOV. It controls the way the LOV for the items is displayed. |
| SHP: Release Online Exception Report | N/A | No equivalent profile option in OM/WSH. |

Table 27–21 Profile Options

| OE Profile Option (Old) | OM Profile Option (New) | Description of the OM Profile Option |
|--|--------------------------------|--|
| SHP: Release Single Orders Online | N/A | No equivalent profile option in OM/WSH. |
| SHP: Release Online Pick Slip Report | N/A | No equivalent profile option in OM/WSH. |
| OE: Reservations | N/A | No equivalent profile option in OM. |
| OE: Schedule Date Window | N/A | No equivalent profile option in OM. |
| OE: Set of Books | OM: Set of Books | Obsolete. OM Looks at Set of Books of the Account Receivable's setup for the Operating Unit. (Table: ar_system_parameters_all) |
| WSH: Shipping Method | N/A | No equivalent profile option in OM/WSH |
| OE: Source Code | OM: Source Code | This profile option identifies the source code that Order Management passes to Oracle Inventory during scheduling. The source code should be defined as the third segment of the Sales Order Flexfield to guarantee that each transaction is unique. |
| OE: Trans. Manager Debug Level | N/A | No equivalent profile option in OM. |
| OE: Tune for Large Number of Discounts | N/A | No equivalent profile option in OM. |
| OE: Transaction Manager | N/A | No equivalent profile option in OM. |
| OE: Unit Price Precision Type | OM: Unit Price Precision Type | Currency Precision Type: Extended or Standard. |
| OE: Verify GSA Violations | QP: Verify GSA Violations | Select YES to verify GSA Violations. |
| OE: Validate Standard Line Item | N/A | No equivalent profile option in OM. |
| OE: Validate Option Line Item | N/A | No equivalent profile option in OM. |
| OE: Weight Unit Of Measure Class | N/A | No equivalent profile option in OM. |

System Parameters Setup

Order Management has converted Old Profile Options *OE: Item Validation Organization* and *OE: Customer Relationships* into System Parameters. These profile Options were available to setup at the Site Level.

Now you can set them up as System Parameters at the Operating Unit level. The setup screen is available under Order Management Super User responsibility. Navigate: Setup > Parameters. On opening, the default Operating Unit will display (MO: Operating Unit for the Responsibility). You can set the value for Item Validation Organization (Inventory Organizations) to define which Inventory Organization you can use to transact items in a given Operating Unit. The Customer Relationships flag for the Operating Unit defines whether a user can specify SHIP_TO and BILL_TO locations for related customers while entering orders.

Order Management Flexfield Migration

This section contains information about Flexfields Migration from Order Entry to Order Management 11i. Flex field definitions from OE are not upgraded to OM, only flex values from OE tables will be upgraded to OM/QP/WSH tables as mentioned below. Customers will need to create new definitions for corresponding OM/QP/WSH Flexfields.

Descriptive Flexfields

Note: For the Headings, Upg means 'Values Upgraded from OE to OM/QP/WSH'.

Table 27–22 Descriptive Flexfields

| OE Flex | OM Flex | Upg | Usage |
|--|---|-----|--|
| Title: Additional Header Information Name: SO_HEADERS Table: SO_HEADERS_ALL Columns: Context, Attribute1..15 | Title: Additional Header Informations Name: OE_HEADER_ATTRIBUTES Table: OE_ORDER_HEADERS_ALL Columns: Context, Attribute1..15 | Yes | Descriptive Flexfield for Order Headers table. |
| Title: Additional Line Information Name: SO_LINES Table: SO_LINES_ALL Columns: Context, Attribute1..15 | Title: Additional Line Attribute Information Name: OE_LINE_ATTRIBUTES Table: OE_ORDER_LINES_ALL Columns: Context, Attribute1..15 | Yes | Descriptive Flexfield for Order Lines table. |
| Title: Pricing Attributes Name: PRICING_ATTRIBUTES Table: SO_LINES_ALL Columns: Pricing_Context, Pricing_attribute1..15 | Title: Pricing Contexts Name: QP_ATTR_DEFNS_PRICING Table: QP_ATTRIBUTE_DEFNS Columns: Pricing_Context, Pricing_Attribute1..100 Application: Oracle Pricing (QP) Definition for Pricing Flex on the Line. Actual columns are stored in OE_ORDER_PRICE_ATTRIBS table. Note: The Definition is also upgraded for this flex field. | Yes | Pricing Attributes Descriptive Flexfield. The OE flexfield Pricing Attribute is now replaced by the Pricing Flexfield Pricing Context. |

Table 27–22 Descriptive Flexfields

| OE Flex | OM Flex | Upg | Usage |
|--|--|-----|---|
| Title: Additional Industry Attributes Name: RLA_DEMAND_LINES_ALL Table: RLA_DEMAND_LINES_ALL Columns: Industry_Context, Industry_Attribute1..15 Application: Oracle Release Management Kit(RLA) Definition for Industry Flex on Line. Columns are stored in SO_LINE_ATTRIBUTES table. | Title: Additional Line Industry Information Name: OE_LINE_INDUSTRY_ATTRIBUTE Table: OE_ORDER_LINES_ALL Columns: Industry_Context, Industry_Attribute1..30 | Yes | Industry Attributes Descriptive Flexfield on Order Line. |
| Title: JG_SO_LINE_ATTRIBUTES Name: JG_SO_LINE_ATTRIBUTES Table: SO_LINE_ATTRIBUTES Columns: Global_Attribute_category, Global_attribute1..20 Application: Regional Localizations (JG). | Title: JG_OE_ORDER_LINES Name: JG_OE_ORDER_LINES Table: OE_ORDER_LINES_ALL Columns: Global_Attribute_category, Global_attribute1..20 | Yes | Globalization Descriptive Flexfield on Order Line. |
| Title: Additional Line Service Detail Info Name: SO_LINE_SERVICE_DETAILS Table: SO_LINE_SERVICE_DETAILS Columns: Context, Attribute1..15 | Title: Additional Line Service Detail Info Name: CS_LINE_INST_DETAILS Table: CS_LINE_INST_DETAILS Columns: Context, Attribute1..15 Application: Oracle Service(CS) | Yes | Descriptive Flexfield for Service installation details table. |

Table 27–22 Descriptive Flexfields

| OE Flex | OM Flex | Upg | Usage |
|--|---|------------|--|
| Title: Additional Sales Credit Information Name: SO_SALES_CREDITS Table: SO_SALES_CREDITS Columns: Context, Attribute1..15 | Title: Additional Sales Credits Information Name: OE_SALES_CREDITS_ATTRIBUTES Table: OE_SALES_CREDITS Columns: Context, Attribute1..15 | Yes | Descriptive Flexfield for Sales Credits table. |
| Title: Additional Hold Information Name: SO_HOLDS Table: SO_HOLDS Columns: Context, Attribute1..15 | Title: Additional Hold Information Name: OE_HOLD_DEFINITIONS Table: OE_HOLD_DEFINITIONS Columns: Context, Attribute1..15 | Yes | Descriptive Flexfield for Hold Definitions table. |
| Title: Additional Hold Authorization Info Name: SO_HOLD_AUTHORIZATIONS Table: SO_HOLD_AUTHORIZATIONS Columns: Context, Attribute1..15 | Title: Additional Hold Authorization Info Name: OE_HOLD_AUTHORIZATIONS Table: OE_HOLD_AUTHORIZATIONS Columns: Context, Attribute1..15 | Yes | Descriptive Flexfield for Hold Authorizations table. |
| Title: Additional Hold Release Information Name: SO_HOLD_RELEASES Table: SO_HOLD_RELEASES Columns: Context, Attribute1..15 | Title: Additional Hold Release Information Name: OE_HOLD_RELEASES Table: OE_HOLD_RELEASES Columns: Context, Attribute1..15 | Yes | Descriptive Flexfield for Hold Releases table. |

Table 27–22 Descriptive Flexfields

| OE Flex | OM Flex | Upg | Usage |
|---|---|-----|--|
| Title: Additional Hold Source Information Name: SO_HOLD_SOURCES_ALL Table: SO_HOLD_SOURCES_ALL Columns: Context, Attribute1..15 | Title: Additional Hold Source Information Name: OE_HOLD_SOURCES Table: OE_HOLD_SOURCES_ALL Columns: Context, Attribute1..15 | Yes | Descriptive Flexfield for Hold Sources table. |
| Title: Additional Note Addition Rule Info Name: SO_NOTE_ADDITION_RULES Table: SO_NOTE_ADDITION_RULES Columns: Context, Attribute1..15 | Title: Additional Attachment Rule Elements Info Name: OE_ATTACHMENT_RULE_ELEMENTS Table: OE_ATTACHMENT_RULE_ELEMENTS Columns: Context, Attribute1..15 | No | Descriptive Flexfield for Attachment Rules table. |
| Title: Additional Order Number Source Info Name: SO_ORDER_NUMBER_SOURCES Table: SO_ORDER_NUMBER_SOURCES Columns: Context, Attribute1..15 | Title: Define Sequences Name: FND_DOCUMENT_SEQUENCES Table: FND_DOCUMENT_SEQUENCES Columns: Attribute_category, Attribute1..15 Application: Application Object Library(AOL) | No | Descriptive Flexfield for 'Document Sequences' table. |
| Title: Additional Freight Charge Information Name: SO_FREIGHT_CHARGES Table: SO_FREIGHT_CHARGES Columns: Context, Attribute1..15 | Title: Additional Price Adjustment Information Name: OE_PRICE_ADJUSTMENTS Table: OE_PRICE_ADJUSTMENTS Columns: Context, Attribute1..15 | Yes | Descriptive Flexfield for Price Adjustments table. Definition is used for Price Adjustments / Freight and Special Charges. |

Table 27–22 Descriptive Flexfields

| OE Flex | OM Flex | Upg | Usage |
|--|---|------------|---|
| Title: AETC / Allowances and Charges Name: SO_FREIGHT_CHARGES_AC Table: SO_FREIGHT_CHARGES Columns: AC_Attribute_Category, AC_Attribute1.. 15 | Title: AETC / Allowances and Charges Name: OE_PRICE_ADJUSTMENTS_AC Table: OE_PRICE_ADJUSTMENTS Columns: AC_Context, AC_Attribute1.. 15 | Yes | AETC(Authorized Excess Transportation Charges) Descriptive Flexfield. |
| Title: Additional Line Detail Information Name: SO_LINE_DETAILS Table: SO_LINE_DETAILS Columns: Context, Attribute1.. 15 | None | No | Obsolete |
| Title: Additional Order Hold Information Name: SO_ORDER_HOLDS Table: SO_ORDER_HOLDS_ALL Columns: Context, Attribute1.. 15 | None | No | Obsolete. |
| Title: Additional Line Approval Information Name: SO_LINE_APPROVALS Table: SO_LINE_APPROVALS Columns: Context, Attribute1.. 15 | None | No | Obsolete. |
| Title: Additional Note Information Name: SO_NOTES Table: SO_NOTES Columns: Context, Attribute1.. 15 | None | No | Obsolete. |

Table 27–22 Descriptive Flexfields

| OE Flex | OM Flex | Upg | Usage |
|---|---------|-----|-----------|
| Title: Additional Note Reference Information Name: SO_NOTE_ REFERENCES Table: SO_NOTE_ REFERENCES Columns: Context, Attribute1.. 15 | None | No | Obsolete. |
| Title: Additional Note Usage Information Name: SO_NOTE_USAGES Table: SO_NOTE_USAGES Columns: Context, Attribute1.. 15 | None | No | Obsolete. |
| Title: Additional Order Approval Information Name: SO_ORDER_ APPROVALS Table: SO_ORDER_ APPROVALS Columns: Context, Attribute1.. 15 | None | No | Obsolete. |
| Title: Additional Order Cancellation Info Name: SO_ORDER_ CANCELLATIONS Table: SO_ORDER_ CANCELLATIONS Columns: Context, Attribute1.. 15 | None. | No | Obsolete. |

Table 27–22 Descriptive Flexfields

| OE Flex | OM Flex | Upg | Usage |
|--|----------------|------------|--------------|
| Title: Additional Security Rule Information Name: SO_SECURITY_RULES Table: SO_SECURITY_RULES Columns: Context, Attribute1..15 | None | No | Obsolete. |
| Title: Attribute Data Information Name: ATTRIBUTE_DATA_INFORMATION Table: SO_ATTRIBUTES | None | No | Obsolete. |
| Title: Attribute Value Name: ATTRIBUTE_VALUE Table: SO_ATTRIBUTE_VALUES | None | No | Obsolete. |
| Title: Additional Action Information Name: SO_ACTIONS Table: SO_ACTIONS | None | No | Obsolete. |
| Title: Additional Attribute Information Name: SO_ATTRIBUTES Table: SO_ATTRIBUTES | None | No | Obsolete. |
| Title: Additional Attribute Std Value Source In Name: SO_ATTRIBUTE_STD_VALUE_SOURCES Table: SO_ATTRIBUTE_STD_VALUE_SOURCES | None | No | Obsolete. |
| Title: Additional Attribute Use Information Name: SO_ATTRIBUTE_USES Table: SO_ATTRIBUTE_USES | None | No | Obsolete. |

Table 27–22 Descriptive Flexfields

| OE Flex | OM Flex | Upg | Usage |
|--|---------|-----|-----------|
| Title: Additional Cycle Information Name: SO_CYCLES Table: SO_CYCLES | None | No | Obsolete. |
| Title: Additional Entity Information Name: SO_ENTITIES Table: SO_ENTITIES | None | No | Obsolete. |
| Title: Additional Entity Use Information Name: SO_ENTITY_USES Table: SO_ENTITY_USES | None | No | Obsolete. |
| Title: Additional General Std Value Source Info Name: SO_GENERAL_STD_VALUE_SOURCES Table: SO_GENERAL_STD_VALUE_SOURCES | None | No | Obsolete. |
| Title: Additional Object Information Name: SO_OBJECTS Table: SO_OBJECTS | None | No | Obsolete. |

Table 27–22 Descriptive Flexfields

| OE Flex | OM Flex | Upg | Usage |
|--|----------------|------------|--------------|
| Title: Additional Results Information Name: SO_ RESULTS Table: SO_RESULTS | None | No | Obsolete. |
| Title: Additional Standard Value Rule Info Name: SO_ STANDARD_VALUE_RULES Table: SO_STANDARD_ VALUE_RULES | None | No | Obsolete. |
| Title: Additional Standard Value Rule Set Info Name: SO_STANDARD_ VALUE_RULE_SETS Table: SO_STANDARD_ VALUE_RULE_SETS | None | No | Obsolete. |

Upgrading to Oracle Shipping Execution 11i

Topics covered in this chapter include the following:

- [Overview](#) on page 28-2
- [Technical Migration R10.7 to R11i](#) on page 28-5
- [Technical Migration R11 to R11i](#) on page 28-6

Overview

Table 28–1 Shipping User Interface (UI) Entities Migration from R10.7 to R11i

| Release 10.7 | | Release 11i |
|----------------------|---------|---|
| Picking Headers | Maps to | Trips, Stops, Deliveries, Delivery Legs |
| Picking line | Maps to | Delivery details |
| Picking line details | | |

Table 28–2 Shipping User Interface (UI) Entities Migration from R11 to R11i

| Release 11 | | Release 11i |
|---------------------------------|---------|-----------------------------|
| Departures | Maps to | Trips, Stops, Delivery Legs |
| Deliveries | Maps to | Deliveries, Delivery Legs |
| Packed Containers | Maps to | Containers/LPNs |
| Delivery Lines | Maps to | Delivery Details |
| Warehouse, Customer/Vendor Site | Maps to | Locations |

Functional Differences

Ship Set Validation In R10.7and R11 ship sets are validated while Pick Releasing for unreleased lines and backordered lines.

In 11i, you can choose not to validate ship sets at pick release and still have ship sets validated at ship confirm. The Order lines will be released with available quantity irrespective of their being in a ship set.

There is a parameter control Enforce Ship Sets & Ship Models. If this control is enabled (checked), ship set is validated at pick release. If this control is disabled (unchecked), ship set is validated at ship confirm.

Note: If you authorize the ship set to be broken then the remaining shipment is no longer part of the original ship set group. The remaining unshipped line quantities become disassociated from the ship set as individual lines.

Ship Model Complete Validation In R10.7 and R11, Ship Model Complete is validated at time of Pick Release for unreleased and backordered Models.

In R11i, Ship Model Complete is validated at Ship Confirm.

There is a parameter control Enforce Ship Sets & Ship Models. If this control is enabled (checked), ship model complete is validated at pick release. If this control is disabled (unchecked), ship model complete is validated at ship confirm.

Inventory Controls In R10.7 and R11, you cannot choose or update the Inventory Controls of the Pick Released items if OE Profile:Reservations = Yes.

In R11i, you can update the Inventory Controls of any item while Pick Confirming. (OE:Reservations are obsolete.)

Ship Confirm Open Interface and Public API's In R10.7 and R11, Ship Confirm Open Interface process can be submitted from the application menu.

In R11i, Ship Confirm Open Interface Application menu is replaced by Public API's.

The Shipping Execution 11i Public APIs are viewable on Oracle MetaLink.

1. Sign on to MetaLink and click Technical Libraries.
2. Click Apps 11i & Euro Info.
3. Click Documentation.
4. In the Distribution/Supply Chain area, click Order Management.
5. Click Oracle Order Management Suite APIs and Open Interfaces Manual - Release 11i to view the document. It is in.pdf format so you must have Adobe Acrobat installed to view it.

Smallest Unit to be Ship Confirmed In R10.7, Pick Slip is the smallest unit that could be Ship Confirmed.

In R11 and R11i, a Delivery is now the smallest unit that can be Ship Confirmed.

Serial Number Entry In R10.7 and R11, serial numbers are entered while Ship Confirming the order line for pre-specified serial controlled items.

In R11i, serial numbers need to be entered while Pick Confirming pre-specified serial controlled items. You can also enter and update serial numbers at ship confirm.

Pick Slips, Batches and Deliveries In R10.7, Consolidated Pick Slip and Open Batch Reports are available.

In R11, you can query open Deliveries and directly take action on them from within the Ship Confirm Delivery form. Pick Slip Reports remain available.

In R11i, you can query open Deliveries and directly take action on them from within the Transactions form. Pick Slip Reports remain available.

Migration: Common Technical Considerations

WSH_DELIVERY_DETAILS contains all the lines which needs to be processed through Shipping Execution. SOURCE_CODE = 'OE' identifies the lines imported from OE.

- WSH_DELIVERY_DETAILS.SOURCE_HEADER_NUMBER stores Order Number
- WSH_DELIVERY_DETAILS.SOURCE_HEADER_ID stores OE_ORDER_LINES_ALL.HEADER_ID
- WSH_DELIVERY_DETAILS.SOURCE_LINE_ID stores OE_ORDER_LINES_ALL.LINE_ID
- Freight Carrier information in ORG_FREIGHT is upgraded to lookups (FND_LOOKUP_VALUES) with lookup_type = 'SHIP_METHOD'

Upgraded table information: ORG_FREIGHT and SO_PICKING_RULES

- WSH_CARRIER_SHIP_METHODS will store the link between Carrier and Ship Method. While upgrading each record in ORG_FREIGHT will have a corresponding record in FND_LOOKUP_VALUES and WSH_CARRIER_SHIP_METHODS.
- All document sets and the individual report will be upgraded for reference purposes. The User will be responsible for updating the document set lines to the equivalent new Reports manually.
- SO_PICKING_RULES is upgraded to WSH_PICKING_RULES, but the document_set will be NULL, which has to be updated manually.

WSH_DELIVERY_DETAILS.RELEASED_STATUS can have the following values:

- **Ready To Release** Line is booked but has not been submitted for Pick Release.
- **Released to Warehouse** Pick Release is started but not completed. Either no allocations were created or allocations have not been Pick Confirmed.
- **Backordered** Line is pick released but no allocation was created, or a partial allocation occurred. For example, an item with a delivery line of quantity 100 has 25 available for allocation. The original delivery line splits; the new line

represents the unallocated portion with quantity 75 and status Backordered. The original line represents the allocated portion with quantity 25 and status Staged.

- **Staged/Pick Confirmed** Line is successfully pick released (detailed and pick confirmed). This occurs after pick confirm to indicate that the subinventory transfer from source location to staging location is complete. Lines remain staged until they are ship confirmed.
- **Shipped** Delivery to which the line is associated is Ship Confirmed.
- **Canceled** Sales order line is canceled.

Technical Migration R10.7 to R11i

Picking Headers, Deliveries and Trips

SO_PICKING_BATCHES_ALL WSH_PICKING_BATCHES

WSH_NEW_DELIVERIES WSH_DELIVERY_ASSIGNMENTS

After upgrade every Closed Picking Header (in SO_PICKING_HEADERS_ALL) is assigned a delivery_id (generated from a sequence). Each delivery is moved into WSH_NEW_DELIVERIES in R11i.

For each delivery inserted into WSH_NEW_DELIVERIES a TRIP is created and a record is inserted into WSH_TRIPS.

For each delivery created a record is inserted into WSH_DELIVERY_LEGS, where the PICK_UP_STOP_ID is the location_id attached to the warehouse from where the line was shipped and the DROP_OFF_STOP_ID is the location_id of SO_PICKING_HEADERS_ALL.SHIP_TO_SITE_USE_ID

For each TRIP created, two records are inserted into WSH_TRIP_STOPS, one with STOP_LOCATION_ID as the location id of the warehouse from which the line is shipped and the other is the location_id of SO_PICKING_HEADERS_ALL.SHIP_TO_SITE_USE_ID

Backordered Lines

All Backordered lines in R10.7 are created as fresh line in WSH_DELIVERY_DETAILS with RELEASED_STATUS = 'R' and ordered_quantity = backordered_quantity.

Pick Slip, Pack Slip, and Bill of Lading

Pick Slip numbers initially stored in SO_PICKING_HEADERS_ALL are NOT upgraded to R11i.

New Pick Slip Numbers are stored in MTL_MATERIAL_TRANSACTIONS and MTL_MATERIAL_TRANSACTIONS_TEMP.

Number of Boxes entered while Ship Confirming a Pick Slip in R10.7 (stored in so_picking_headers_all.number-of_boxes) is NOT upgraded and dropped during R11i upgrade process.

The field Number Of LPN in the Shipping Transactions form, Deliveries tabbed region. There is a script to upgrade the number_of_boxes in so_picking_headers_all to number_of_LPN in WSH_NEW_DELIVERIES.

Packing Slips and Bill of Lading reports cannot be generated for SO lines upgraded from R10.7.

In R11i, a unique sequence number identifies each instance of the report. Initial steps are required to generate these reports in R11i.

Each line in SO_PICKING_LINE_DETAILS that is attached to a Closed Picking Header is moved into WSH_DELIVERY_DETAILS.

Technical Migration R11 to R11i

Deliveries and Delivery Legs

Data from WSH_DELIVERIES is moved into WSH_NEW_DELIVERIES where WSH_DELIVERIES.DELIVERY_ID = WSH_NEW_DELIVERIES.DELIVERY_ID.

For every Delivery a record is created in WSH_DELIVERY_LEGS.

Departures and Trips

Data from WSH_DEPARTURES is moved into WSH_TRIPS, where WSH_DEPARTURES.DEPARTURE_ID = WSH_TRIPS.TRIP_ID

For every Departure in Release 11, a record is created in WSH_TRIP_STOPS

Containers and Delivery Details

Each Container in WSH_PACKED_CONTAINERS becomes a Container Instance i.e a record is inserted in WSH_DELIVERY_DETAILS with container_flag = Y and source_code = WSH.

For each Container in WSH_PACKED_CONTAINERS a record is inserted into WSH_DELIVERY_ASSIGNMENTS.

WSH_CONTAINER_LOAD will be upgraded to WSH_CONTAINER_ITEMS.

Report Sets and Usage Code

WSH_REPORT_SETS is upgraded to WSH_REPORT_SETS, but the usage_code is changed from PICK_RELEASE_DELIVERY to PICK_RELEASE and SHIP_CONFIRM_DELIVERY to SHIP_CONFIRM.

Pick Slip and Pick Slip Grouping Rules

WSH_PICK_SLIP_RULES is upgraded to WSH_PICK_GROUPING_RULES

Data Not Upgraded

Descriptive Flexfield

The descriptive flexfield attribute values are upgraded but their definition is not. After an upgrade descriptive flexfields need to be redefined.

Document Sets

The document sets should be redefined after the upgrade.

Profile Options

The profile options used in 10.7 and 11.0 are discontinued.

Concurrent Program OEIIRA

Program name or the executable for the receivable interface in 10.7 was OEIIRA and the name was changed to WSHARI in rel 11.0.

Lookups

Topics covered in this appendix include the following:

- [Advanced Pricing Lookups](#) on page A-2
- [Shipping Execution Lookups](#) on page A-14

Advanced Pricing Lookups

This appendix lists the predefined Oracle Pricing Lookups.

Agreement Type

Access Level: Extensible

Allows the user to optionally categorize agreements by defining unique agreement types. For example, the user could setup an agreement type per contract type, or use the categorization for reporting purposes. An agreement type is optional on a pricing agreement.

The user can choose to use the seeded agreement types or add new types.

Table 28–3 Agreement Type Lookup

| Code | Meaning | Function |
|----------|-------------------------------|--|
| GSA | Government Services Agreement | Used to categorize pricing agreements. |
| STANDARD | Standard Terms and Conditions | Used to categorize pricing agreements. |
| VPA | Volume Purchase Agreement | Used to categorize pricing agreements. |

Arithmetic Operator

Access Level: System

The method by which a price or modifier is calculated. Used in the Price List and Modifier Setup U.I.'s.

Table 28–4 Arithmetic Operator Lookup

| Code | Meaning | Function |
|---------------|---------------|--|
| % | Percent | Modifier value is calculated as a per unit percentage of the List Price. |
| AMT | Amount | Modifier value is calculated as per unit amount +/- the List Price. |
| LUMPSUM | Lump Sum | Modifier value is a fixed amount, i.e. is not per unit. |
| NEW PRICE | New Price | Modifier value overrides the selling price. |
| PERCENT PRICE | Percent Price | List Price is derived as a percentage of an associated item. |
| UNIT PRICE | Unit Price | List Price is a per unit price. |

Comparison Operator

Access Level: System

Used when setting up Qualifiers and Pricing Attributes to define the rule as to how the search engine should evaluate the attribute on the request line.

Table 28–5 Comparison Operator Lookup

| Code | Meaning | Function |
|---------|-----------|---|
| = | Equals | Qualifier/Pricing Attribute value on the incoming request should match the Qualifier/Pricing Attribute value. |
| BETWEEN | Between | Qualifier/Pricing Attribute value on the incoming request should be in the range defined by the Qualifier / Pricing Attributes. |
| Not = | Not Equal | Qualifier Attribute value on the incoming request should NOT match the Qualifier Attribute value. |

Currency Precision Type

Access Level: System

Valid values for the profile option QP: Unit Price Precision Type. Indicates whether the currencies standard or extended precision should be used.

Table 28–6 Currency Precision Types Lookup

| Precision Type | Rounding Factor |
|----------------|---|
| Extended | Rounding Factor is defaulted to the currencies extended precision |
| Standard | Rounding Factor is defaulted to the currencies standard precision |

Effective Date Types

Access Level: System

Effective date ranges of these types can optionally be defined on some types of Modifier Lists. The Search Engine will use these dates, if passed by the calling application, in addition to the pricing effective date to determine which Modifier Lists are eligible.

Table 28–7 Effective Date Type Lookup

| Code | Meaning | Function |
|------|---------------------|---|
| ORD | Order Date | Order Date must be within the date range. |
| SHIP | Requested Ship Date | Customer requested Ship Date must be within the date range. |

Incompatibility Groups

Access Level: Extensible

Incompatibility Groups allow the user to define which Modifiers cannot be applied to a request line with which other Modifiers, i.e. are incompatible, and which Modifiers cannot be applied to a request line with any other Modifier, i.e. are exclusive.

All Modifiers in a Phase which are incompatible should be assigned to the same Incompatibility Groups, LVL1 - LVL3, and any Modifier in a Phase which is exclusive should be placed in the EXCL - Exclusive Group.

Users may define additional incompatibility groups, but only the seeded EXCL - Exclusive group is treated as incompatible with ALL.

Table 28–8 Incompatibility Groups Lookup

| Code | Meaning | Function |
|------|-------------------------|---|
| EXCL | Exclusive group | Incompatible with all other Modifiers in a Phase. |
| LVL1 | Level 1 Incompatibility | Incompatible with other Modifiers in this incompatibility group in a Phase. |
| LVL2 | Level 2 Incompatibility | Incompatible with other Modifiers in this incompatibility group in a Phase. |
| LVL3 | Level 3 Incompatibility | Incompatible with other Modifiers in this incompatibility group in a Phase. |

Incompatibility Resolution Code

Access Level: System

Methods of deciding which Modifier should be selected when multiple Modifiers in the same incompatibility group are eligible to be applied to a request line in the same pricing phase. The method for resolving incompatibility is specified by pricing phase when maintaining pricing phases in the Event to Phase Mapping Setup Up.

Table 28–9 Incompatibility Resolution Code

| Code | Meaning | Function |
|------------|------------|--|
| BEST PRICE | Best Price | Search Engine selects the Modifier which gives the lowest price to the customer. |

Table 28–9 Incompatibility Resolution Code

| Code | Meaning | Function |
|------------|------------|--|
| PRECEDENCE | PRECEDENCE | Search Engine selects the Modifier with the lowest precedence, i.e. the highest specificity. |

List Line Type Code

Access Level: System

Defines the behavior of a List Line; a List Line maybe a Price List Line or a type of Modifier, i.e. price adjustment, benefit or charge.

Table 28–10 List Line Code Lookup

| Code | Meaning | Function |
|------|---------------------|--|
| PLL | Price List Line | Sets the base price of an item or level in product hierarchy. |
| PBH | Price Break Header | A series of base price or price adjustments which are eligible for application to the pricing request according to a delimited break unit range and the rules of the break type. |
| PMR | Price Modifier | One or more pricing attributes, whose value or range of values is used to derive a factor on a formula line. |
| DIS | Discount | Reduces the list price, or selling of the previous pricing bucket, according to the calculation rules of the arithmetic operator. |
| SUR | Surcharge | Increases the list price, or selling of the previous pricing bucket, according to the calculation rules of the arithmetic operator. |
| OID | Other item Discount | A discount for which eligibility can be qualified by one or more request lines, but is applied to the same or different request line/s which are on the request. |
| PMG | Promotional Goods | A discount for which eligibility can be qualified by one or more request lines, but for which a new request line is created for the discounted item. |
| CIE | Coupon Issue | Creation of a coupon which qualifies for a discount or promotional goods on a future request. |
| IUE | Item Upgrade | Substitution of one item for another on a request line, according to the pre-defined promotional Upgrade relationship between the two items. |

Table 28–10 List Line Code Lookup

| Code | Meaning | Function |
|-----------------|-----------------------------|--|
| TSN | Terms Substitution | Changing value of qualifier attribute in terms context on request line. Seeded qualifier attributes in terms context are Freight, Shipping, and Payment Terms. |
| Freight Charges | Freight and Special Charges | Monetary charges which are calculated based on attributes of a request line, but which do not effect the selling price on the request line. |

List Type Code

Access Level: System

Used to categorize the type of list which groups price list lines or modifiers. Used for validation, including which types of lines can be included on the list, and reporting purposes.

Table 28–11 List Type Code Lookup

| Modifier Line Types | Price List | Discount | Surcharge | F&S | Promotion | Deal | Price Modifier |
|---------------------|------------|----------|-----------|-----|-----------|------|----------------|
| Price List | X | | | | | | |
| Discount | | X | | | X | X | |
| Surcharge | | X | X | | X | X | |
| Freight Charge | | | | X | | | |
| Price Break Header | | X | X | | X | X | |
| Item Upgrades | | | | | X | X | |
| Other Item Discount | | | | | X | X | |
| Terms Substitution | | | | | X | X | |
| Promotional Goods | | | | | X | X | |
| Coupon Issue | | | | | X | X | |
| Price Modifier | | | | | | | X |

Modifier Level Code

Access Level: System

Determines what qualifiers and pricing attributes are considered by the search engine when deciding if a request line qualifies for a modifier. This code also determines at what level, i.e. individual line or summary, a modifier should be applied to the request.

Table 28–12 *Modifier Level Code Lookup*

| Code | Meaning | Function |
|------------|----------------|--|
| Line | Line | Line Group |
| Line Group | Group of lines | The quantity, in the pricing UOM, and amount spent on an item is summed across all request lines. Hence the total item quantity and amount, on the request, or total quantity and amount at a level in the product hierarchy, is considered by the search engine when deciding if a modifier is qualified or not. Modifier application is at the request line level. |
| Order | Order | Only qualifiers or pricing attributes of the summary request line, or header, are considered by the search engine when deciding if a modifier is qualified. Note: it is not possible for a header level modifier to be qualified by a request line. Modifier application is at the summary request line, or header level. |

Price Break Type Code

Access Level: System

Rules which determine which delimited break unit range/s the qualifying break unit quantity falls into.

Table 28–13 *Price Break Type Code Lookup*

| Code | Meaning | Function |
|-----------|-----------|---|
| POINT | Point | Volume break in which each volume of break unit gets price/discount in the break range into which it falls. |
| RANGE | Range | Volume break in which each volume of break unit gets base price/modifier in the break range within which the <i>total</i> volume falls. |
| RECURRING | Recurring | Volume break in which the modifier is given <i>for each</i> volume of break unit that falls into the break range. Used for modifiers only. |

Price Formula Line Type Code

Access Level: System

Defines the behavior of a formula line. Table 28–14 are the defined lookups for basic pricing in OM, and Table 28–15 are the lookups defined for Oracle Pricing.

Table 28–14 Price Formula Line Type Code Lookup (Basic Pricing in OM)

| Code | Function | Meaning |
|------|--------------------|--|
| ML | Factor List | Formula uses a price modifier list to derive the value for the formula line. A price modifier list is a grouping of price modifier lines, each line having one or more pricing attributes, whose value or range of values is used to derive a factor. |
| NUM | Numeric Constant | Fixed value |
| PRA | Pricing Attributes | Formula takes as input the pricing attribute for the item referenced by the formula line. |

Table 28–15 Price Formula Line Type Code Lookup (Oracle Pricing Only)

| Code | Function | Meaning |
|------|-------------------|--|
| FUNC | Function | Formula uses a function to derive the value for the formula line |
| LP | Price List Line | Formula takes as input the list price of the price list line to which it is attached |
| PLL | Price List Line | Formula takes as input the list price from the price list line (any price list line) referenced by the formula line. |
| PRA | Pricing Attribute | Formula takes as input the pricing attribute for the item referenced by the formula line. |
| ML | Factor List | Formula uses a price modifier list to derive the value for the formula line. A price modifier list is a grouping of price modifier lines, each line having one or more pricing attributes, whose value or range of values is used to derive a factor. |
| NUM | Numeric Constant | Fixed value |

Pricing Events

Access Level: System

A point in the process flow of the transaction system/calling application at which a call is made to the Pricing Engine (analogous to a Workflow Event).

The following seeded lookup codes are for Oracle Order Management integration with pricing; each event represents a stage in the order cycle at which pricing is performed. The information returned by pricing; base prices, price adjustments, promotions, freight charges, etc. depends on the pricing phases which are processed for this event.

Note: in this release it is not possible to create new pricing events.

Table 28–16 Pricing Events Lookup

| Code | Meaning | Function |
|-------|------------------|--|
| PRICE | Fetch List Price | Calls pricing engine to get base price as user enters item, quantity and unit of measure on the order line. |
| LINE | Enter Order Line | Calls pricing engine to get line level modifiers as user saves the order line. |
| ORDER | Save Order Event | Calls pricing engine, as user saves order, to get order level modifiers and other benefits which depend on multiple order lines. |
| BOOK | Book Order | Calls pricing engine as order is booked. |
| SHIP | Enter Shipments | Calls pricing engine as order is shipped. |
| BATCH | Batch Processing | Calls pricing engine when orders are processed in batch, replaces 'Line' and 'Order' events. |

Pricing Group Sequence

Access Level: Extensible

A Pricing Group Sequence is a mechanism to control the application order of price adjustments and retrospective discounts, i.e. accruals. The sequence of application of these modifiers becomes important when the adjustment or accrual value is derived from the selling price (the price resulting from applying prior price adjustments) rather than the list price. This is known as discounts on discounts or cascading discounts. The sequence number of the group determines which order the calculation engine will apply the modifiers.

The pricing group sequence allows the user to place all price adjustments and retrospective discounts in a pricing bucket; all modifiers in a bucket are additive, i.e. the adjustment amount for all modifiers in a bucket is calculated off the final selling price, or subtotal of the previous bucket.

The user can add additional pricing group sequences / buckets if they require further subtotals or cascading of modifiers. Pricing Group Sequence 0 is reserved for base price calculation.

Table 28–17 Pricing Group Sequence Lookup

| Code | Meaning | Function |
|------|----------------------------|--------------------------|
| 0 | Base Price | Base Price calculation |
| 1 | Price Adjustments Bucket 1 | First modifier subtotal |
| 2 | Price Adjustments Bucket 2 | Second modifier subtotal |
| 3 | Price Adjustments Bucket 3 | Third modifier subtotal |

Related Modifier Group Type

Access Level: System

Used by Oracle Pricing internally to identify relationships between, and functional groupings, of modifiers.

Table 28–18 Related Modifier Group Type Lookup

| Code | Meaning | Function |
|-----------|-----------|---|
| QUALIFIER | Qualifier | Identifies those modifiers which the request must qualify for in order to get a benefit. |
| BENEFIT | Benefit | Identifies those modifiers which are given as a benefit once the qualification criteria has been met. |

Table 28–18 *Related Modifier Group Type Lookup*

| Code | Meaning | Function |
|----------------|-------------|--|
| COUPON | Coupon | Identifies the benefit which is given for a Coupon Issue. |
| PRICE BREAK | Price Break | Records which modifiers are price break lines for a price break. |

Request Type

Access Level: Extensible

A Request Type indicates to the pricing engine the type of transaction being priced. This is important to pricing, as the engine will use this information to only consider data created specifically to price this particular type of transaction.

The following seeded lookup codes are for Oracle Order Management integration with pricing. Any application which wishes to use Oracle Pricing should create a request type lookup code to identify their transaction.

Table 28–19 Request Type Lookup

| Code | Meaning | Function |
|------|------------------------|--|
| ONT | Order Management Order | Used to price an Order Management Order. |

Source System

Access Level: Extensible

The Source System is used to identify the origin of the pricing data. The pricing engine will use this information to restrict it's search to pricing information which originated from a particular application depending on the Request Type to Source System Setup.

Any application which wishes to use create pricing information should create a source system lookup code to identify their pricing data

Table 28–20 Source System Lookup

| Code | Meaning | Function |
|------|----------------|---|
| QP | Oracle Pricing | Use Oracle Pricing tables as data origin. |

Shipping Execution Lookups

This section lists the key lookups in Oracle Shipping Execution. Consult the Oracle Shipping Execution Lookups form (Setup > Lookups) for complete information on all of the lookups.

Key Lookups

DELIVERY_STATUS: Delivery status

DOCUMENT_TYPE: Shipping document types

EXCEPTION_SEVERITY: Exception severity
EXCEPTION_STATUS: Exception status
EXCEPTION_TYPE: Exception type
FREIGHT_COST_TYPE: Freight cost type lookups
INSPECTION_STATUS: Inspection status
LOGGING_ENTITY: Exception logging entity
OPN_SORT_BY: Sort Order for Open Deliveries Report
PACK_PRINT_ALL: Packing slip print all option values
PACK_SORT: Packing slip print sort option values
PACK_TYPE: Packing slip types
PICK_STATUS: Pick status
REPORT_USAGE: Report usage
SECURITY_PRIVILEGE: Security privileges in shipping transactions
SOURCE_SYSTEM: Source system from which delivery details are imported
TRIP_STATUS: Trip status
TRIP_STOP_STATUS: Trip stop status
UPS: UPS service levels

Order Management Processing Constraints

Topics covered in this appendix include the following:

- [Processing Constraints](#) on page B-2
- [Constraints for Order Line](#) on page B-3
- [Constraints for Line Price Adjustment](#) on page B-14
- [Constraints for Line Sales Credit](#) on page B-14
- [Constraints for Order Header](#) on page B-15
- [Constraints for Order Price Adjustment](#) on page B-18
- [Constraints for Order Sales Credit](#) on page B-18

Processing Constraints

The following tables within this appendix display Processing Constraints currently available with the Oracle Order Management application.

Appendix Tables / Processing Constraints Window field mapping

For all tables within this appendix, the following mapping exists between table columns and fields within the Order Management Processing Constraint window:

- Entity Column - Entity field
- Operation Column - Operation field
- Attribute Column - Attribute field
- Seeded Flag Column- Constraint Seeded check box
- Group Number Column- Group Number field
- Validation Entity Column - Validation Entity field
- Record Set Column - Record Set field
- Validation Template Column - Validation Template field
- Seeded Condition exists for constraint Column - Constraint Condition Seeded check box

The following is true for all tables within this appendix:

- If a row has the Seeded Flag column with a value of Yes, and the Seeded Condition Exists for Constraint column has a value of Yes, you cannot update the constraint or constraint condition.
- If a row has the Constraint Seeded Flag column with a value of Yes, and the Seeded Condition exists for constraint Column has a value of No, you cannot update the constraint but you can update the constraint condition.

Note: It is possible that a constraint that is 'seeded' has conditions that are 'not seeded'.

The following is true for all rows within all tables of this appendix:

- If the value in column Entity has an asterisk, then System Changes (field System Changes within the Processing Constraints window) for the operation are set to

Always, and the User Changes (field User Changes within the Processing Constraints window) for the operation are set to Never After Insert.

- If the value in column Seeded Condition exists for Constraint includes an asterisk, then the condition will evaluate to False for the constraint to be applicable (the Not check box within the Processing Constraints window is selected for the condition).
- The User Action (field User Action within the Processing Constraints window) associated with each constraint operand is Not Allowed, unless specifically noted in the Operation column.
- The Scope (field Scope within the Processing Constraints window) for the Validation Entity condition to be evaluated is Any.

Constraints for Order Line

Table 28–21 Order Line Constraints

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|------------|------------------------------------|-----------|-------------|--------------|-------------------|------------|---------------------|--|
| Order Line | CANCEL-user action requires reason | NULL | No | 1 | Order Line | Line | Booked | No |
| Order Line | CANCEL | NULL | Yes | 1 | Order Line | Line | Cancel Line | Yes |
| Order Line | CANCEL | NULL | Yes | 2 | Order Line | Line | Closed | Yes |
| Order Line | CANCEL | NULL | Yes | 3 | Order Line | Line | RMA Received | Yes |
| Order Line | CANCEL | NULL | Yes | 4 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | CANCEL | NULL | Yes | 5 | Order Line | Line | ATO | Yes |
| Order Line | CANCEL | NULL | Yes | 5 | Order Line | Line | Ship complete | Yes |
| Order Line | CANCEL | NULL | Yes | 5 | Order Line | Line | Standard item | Yes |

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|------------|-----------|-----------|-------------|--------------|-------------------|------------|-------------------------------|--|
| Order Line | CANCEL | NULL | Yes | 6 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | CANCEL | NULL | Yes | 7 | Order Line | Line | Update Config Line | Yes |
| Order Line | CANCEL | NULL | Yes | 8 | Order Line | Line | Operations on Included items | Yes |
| Order Line | CANCEL | NULL | Yes | 9 | Order Line | Line | Pick Released | No |
| Order Line | CREATE | NULL | Yes | 1 | Order Header | Order | Closed | Yes |
| Order Line | CREATE | NULL | Yes | 2 | Order Header | Order | Header Invoice Complete | Yes |
| Order Line | DELETE | NULL | No | 1 | Order line | Line | Booked | No |
| Order Line | DELETE | NULL | Yes | 1 | Order Line | Line | Closed | Yes |
| Order Line | DELETE | NULL | No | 1 | Order Line | Line | RLM Line | No * |
| Order Line | DELETE | NULL | Yes | 2 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | DELETE | NULL | Yes | 3 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | DELETE | NULL | Yes | 4 | Order Line | Line | ATO | Yes |
| Order Line | DELETE | NULL | Yes | 4 | Order Line | Line | Standard item | Yes |
| Order Line | DELETE | NULL | Yes | 4 | Order Line | Line | Ship notified | Yes |
| Order Line | DELETE | NULL | Yes | 5 | Order Line | Line | Top ATO model | Yes |
| Order Line | DELETE | NULL | Yes | 5 | Order Line | Line | Configuration Created | Yes |
| Order Line | DELETE | NULL | Yes | 6 | Order Line | Line | Configuration created for PTO | Yes |

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|------------|-----------|-----------|-------------|--------------|-------------------|------------|--------------------------------------|--|
| Order Line | DELETE | NULL | Yes | 7 | Order Line | Line | Is config Line | Yes |
| Order Line | DELETE | NULL | Yes | 8 | Order Line | Line | Purchase Release Interfaced | Yes |
| Order Line | DELETE | NULL | Yes | 9 | Order Line | Line | Operations on Included Items | Yes |
| Order Line | DELETE | NULL | Yes | 10 | Order Line | Line | Pick Released | No |
| Order Line | SPLIT | NULL | Yes | 1 | Order Line | Line | Configuration Created | Yes |
| Order Line | SPLIT | NULL | Yes | 1 | Order Line | Line | Purchase Release Interfaced | Yes |
| Order Line | SPLIT | NULL | Yes | 2 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | SPLIT | NULL | Yes | 3 | Order Line | Line | RMA Received | Yes |
| Order Line | SPLIT | NULL | Yes | 4 | Order Line | Line | Closed | Yes |
| Order Line | SPLIT | NULL | Yes | 5 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | SPLIT | NULL | Yes | 6 | Order Line | Line | Pick Released | No |
| Order Line | SPLIT | NULL | Yes | 7 | Order Line | Line | Awaiting Export Compliance Screening | Yes |
| Order Line | SPLIT | NULL | Yes | 8 | Order Line | Line | ATO Item Buy | Yes |
| Order Line | SPLIT | NULL | Yes | 8 | Order Line | Line | Ship notified | Yes |
| Order Line | UPDATE | NULL | Yes | 1 | Order Line | Line | Closed | Yes |
| Order Line | UPDATE | NULL | Yes | 1 | Order Line | Line | Closed | Yes |

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|------------|-----------|-------------------------|-------------|--------------|-------------------|------------|--------------------------------------|--|
| Order Line | UPDATE | Accounting Rule | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | UPDATE | Agreement | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | UPDATE | Arrival Set | Yes | 1 | Order Line | Line | External Line | Yes |
| Order Line | UPDATE | Authorized To Ship | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Authorized To Ship | Yes | 2 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Customer | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Customer | Yes | 2 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | UPDATE | Customer | Yes | 3 | Order Line | Line | Inventory Interfaced | Yes |
| Order Line | UPDATE | Customer | Yes | 4 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Customer | Yes | 5 | Order Line | Line | Awaiting Export Compliance Screening | No |
| Order Line | UPDATE | Customer PO | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | UPDATE | Customer PO | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Customer PO | Yes | 2 | Order Line | Line | Inventory Interfaced | Yes |
| Order Line | UPDATE | Customer PO | Yes | 3 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Customer PO Line Number | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|------------|-----------|-------------------------|-------------|--------------|-------------------|------------|--------------------------------------|--|
| Order Line | UPDATE | Customer PO Line Number | Yes | 2 | Order Line | Line | Inventory Interfaced | Yes |
| Order Line | UPDATE | Customer PO Line Number | Yes | 3 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | UPDATE | Customer PO Line Number | Yes | 4 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Deliver To Contact | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Deliver To Contact | Yes | 2 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Deliver To Org | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Deliver To Org | Yes | 2 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Deliver To Org | Yes | 3 | Order Line | Line | Awaiting Export Compliance Screening | No |
| Order Line | UPDATE | Demand Class | Yes | 1 | Order Line | Line | Configuration Created | Yes |
| Order Line | UPDATE | Demand Class | Yes | 2 | Order Line | Line | External Line | Yes |
| Order Line | UPDATE | End Item Unit Number | Yes | 1 | Order Line | Line | Booked | Yes |
| Order Line | UPDATE | FOB Point | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | FOB Point | Yes | 2 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | UPDATE | FOB Point | Yes | 3 | Order Line | Line | Pick Released | No |

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|------------|-----------|-----------------|-------------|--------------|-------------------|------------|--------------------------------------|--|
| Order Line | UPDATE | Freight Carrier | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Freight Carrier | Yes | 2 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | UPDATE | Freight Carrier | Yes | 3 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Freight Terms | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Freight Terms | Yes | 2 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Inventory Item | Yes | 1 | Order Line | Line | Included Item | Yes |
| Order Line | UPDATE | Inventory Item | Yes | 2 | Order Line | Line | Line Part of Configuration | Yes |
| Order Line | UPDATE | Inventory Item | Yes | 3 | Order Line | Line | Service Lines Exists | Yes |
| Order Line | UPDATE | Inventory Item | Yes | 4 | Order Line | Line | Booked | Yes |
| Order Line | UPDATE | Inventory Item | Yes | 5 | Order Line | Line | Purchase Release Interfaced | Yes |
| Order Line | UPDATE | Invoice To | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | UPDATE | Invoice To | Yes | 1 | Order Line | Order | Internal Order | Yes |
| Order Line | UPDATE | Invoice To | Yes | 2 | Order Header | Order | Awaiting Export Compliance Screening | No |
| Order Line | UPDATE | Invoicing Rule | Yes | 1 | Order Line | Line | Invoice Interface | Yes |
| Order Line | UPDATE | Item Type | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|------------|-----------|--------------------|-------------|--------------|-------------------|------------|----------------------|--|
| Order Line | UPDATE | Item Type | Yes | 2 | Order Line | Line | Inventory Interfaced | Yes |
| Order Line | UPDATE | Item Type | Yes | 3 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Line Type | Yes | 1 | Order Line | Line | Booked | Yes |
| Order Line | UPDATE | Order Quantity Uom | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Order Quantity Uom | Yes | 2 | Order Line | Line | Training Line | Yes |
| Order Line | UPDATE | Order Quantity Uom | Yes | 3 | Order Line | Line | Inventory Interfaced | Yes |
| Order Line | UPDATE | Order Quantity Uom | Yes | 4 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Ordered Quantity | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | UPDATE | Ordered Quantity | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Ordered Quantity | Yes | 2 | Order Line | Line | Cancel Line | Yes |
| Order Line | UPDATE | Ordered Quantity | Yes | 3 | Order Line | Line | Closed | Yes |
| Order Line | UPDATE | Ordered Quantity | Yes | 3 | Order Line | Line | RMA Received | Yes |
| Order Line | UPDATE | Ordered Quantity | Yes | 3 | Order Line | Line | ATO | Yes |
| Order Line | UPDATE | Ordered Quantity | Yes | 4 | Order Line | Line | Ship complete | Yes |
| Order Line | UPDATE | Ordered Quantity | Yes | 5 | Order Line | Line | Standard Item | Yes |

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|------------|-----------|-----------------------|-------------|--------------|-------------------|------------|-----------------------------|--|
| Order Line | UPDATE | Ordered Quantity | Yes | 6 | Order Header | Order | Internal Order | Yes |
| Order Line | UPDATE | Ordered Quantity | Yes | 7 | Order Line | Line | Update Config Line | Yes |
| Order Line | UPDATE | Ordered Quantity | Yes | 8 | Order Line | Line | Inventory Interfaced | Yes |
| Order Line | UPDATE | Ordered Quantity | Yes | 9 | Order Line | Line | Operations on Included item | Yes |
| Order Line | UPDATE | Ordered Quantity | Yes | 10 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Packing Instructions | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Packing Instructions | Yes | 2 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Payment Term | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | UPDATE | Project | Yes | 1 | Order Line | Line | Booked | Yes |
| Order Line | UPDATE | Request Date | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Request Date | Yes | 1 | Order Header | Order | Internal Order | Yes |
| Order Line | UPDATE | Request Date | Yes | 2 | Order Line | Line | Update Config Line | Yes |
| Order Line | UPDATE | Request Date | Yes | 3 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Schedule Arrival Date | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Schedule Arrival Date | Yes | 2 | Order Line | Line | Update Config Line | Yes |

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|------------|-----------|-----------------------|-------------|--------------|-------------------|------------|--------------------------------------|--|
| Order Line | UPDATE | Schedule Arrival Date | Yes | 3 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Schedule Ship Date | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Schedule Ship Date | Yes | 2 | Order Line | Line | ATO | Yes |
| Order Line | UPDATE | Schedule Ship Date | Yes | 2 | Order Line | Line | Standard item | Yes |
| Order Line | UPDATE | Schedule Ship Date | Yes | 2 | Order Line | Line | Ship complete | Yes |
| Order Line | UPDATE | Schedule Ship Date | Yes | 3 | Order Line | Line | Update Config Line | Yes |
| Order Line | UPDATE | Schedule Ship Date | Yes | 4 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Ship Set | Yes | 1 | Order Line | Line | External Line | Yes |
| Order Line | UPDATE | Ship To | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | UPDATE | Ship To | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Ship To | Yes | 2 | Order Header | Order | Internal Order | Yes |
| Order Line | UPDATE | Ship To | Yes | 3 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Ship To | Yes | 4 | Order Line | Line | Awaiting Export Compliance Screening | No |
| Order Line | UPDATE | Ship To Contact | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | UPDATE | Ship To Contact | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|--------------|-----------|-----------------------|-------------|--------------|-------------------|------------|----------------------|--|
| Order Line | UPDATE | Ship To Contact | Yes | 3 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Shipment Priority | Yes | 1 | Order Line | Line | External Line | Yes |
| Order Line | UPDATE | Shipment Priority | Yes | 2 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Shipment Priority | Yes | 3 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Shipping Instructions | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Shipping Instructions | Yes | 2 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Shipping Method | Yes | 1 | Order Line | Line | External Line | Yes |
| Order Line | UPDATE | Source Type | Yes | 1 | Order Header | Order | Internal Order | Yes |
| Order Line | UPDATE | Source Type | Yes | 2 | Order Line | Line | Create Supply | Yes |
| Order Line | UPDATE | Subinventory | Yes | 1 | Order Line | Line | Pick Released | Yes |
| Order Line | UPDATE | Subinventory | Yes | 2 | Order Line | Line | Inventory Interfaced | Yes |
| Order Line | UPDATE | Task | Yes | 1 | Order Line | Line | Booked | Yes |
| Order Line * | UPDATE | Tax Code | Yes | 1 | Order Line | Line | Tax Override | Yes * |
| Order Line * | UPDATE | Tax Code | Yes | 2 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line * | UPDATE | Tax Exempt | Yes | 1 | Order Line | Line | Tax Exemptions | Yes * |
| Order Line * | UPDATE | Tax Exempt | Yes | 2 | Order Line | Line | Invoice Interfaced | Yes |

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|--------------|-----------|-------------------|-------------|--------------|-------------------|------------|-----------------------|--|
| Order Line * | UPDATE | Tax Exempt Number | Yes | 1 | Order Line | Line | Tax Exemptions | Yes * |
| Order Line * | UPDATE | Tax Exempt Number | Yes | 2 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line * | UPDATE | Tax Exempt Reason | Yes | 1 | Order Line | Line | Tax Exemptions | Yes * |
| Order Line * | UPDATE | Tax Exempt Reason | Yes | 2 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | UPDATE | Unit List Price | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Order Line | UPDATE | Warehouse | Yes | 1 | Order Line | Line | Ship Confirmed | Yes |
| Order Line | UPDATE | Warehouse | Yes | 2 | Order Header | Order | Internal Order | Yes |
| Order Line | UPDATE | Warehouse | Yes | 3 | Order Line | Line | ATO | Yes |
| Order Line | UPDATE | Warehouse | Yes | 3 | Order Line | Line | Ship notified | Yes |
| Order Line | UPDATE | Warehouse | Yes | 3 | Order Line | Line | Standard item | Yes |
| Order Line | UPDATE | Warehouse | Yes | 4 | Order Line | Line | ATO | Yes |
| Order Line | UPDATE | Warehouse | Yes | 4 | Order Line | Line | Standard item | Yes |
| Order Line | UPDATE | Warehouse | Yes | 4 | Order Line | Line | Ship complete | Yes |
| Order Line | UPDATE | Warehouse | Yes | 5 | Order Line | Line | Configuration Created | Yes |
| Order Line | UPDATE | Warehouse | Yes | 6 | Order Line | Line | Inventory Interfaced | Yes |

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|------------|-----------|-----------|-------------|--------------|-------------------|------------|--------------------------------------|--|
| Order Line | UPDATE | Warehouse | Yes | 7 | Order Line | Line | Pick Released | No |
| Order Line | UPDATE | Warehouse | Yes | 8 | Order Line | Line | Awaiting Export Compliance Screening | No |

Constraints for Line Price Adjustment

Table 28–22 *Line Price Adjustment Constraints*

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|-----------------------|-----------|---------------------|-------------|--------------|-----------------------|-----------------------|---------------------|--|
| Line Price Adjustment | CREATE | NULL | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Line Price Adjustment | DELETE | NULL | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Line Price Adjustment | UPDATE | NULL | Yes | 1 | Line Price Adjustment | Line Price Adjustment | any_line_frozen | Yes |
| Line Price Adjustment | UPDATE | Arithmetic Operator | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Line Price Adjustment | UPDATE | Operand | Yes | 1 | Order Line | Lines | Invoice Interfaced | Yes |

Constraints for Line Sales Credit

Table 28–23 *Line Sales Credit Constraints*

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|-------------------|-----------|-------------------|-------------|--------------|-------------------|------------|---------------------|--|
| Line Sales Credit | CREATE | NULL | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Line Sales Credit | CREATE | NULL | Yes | 2 | Order Line | Line | Closed | Yes |
| Line Sales Credit | DELETE | NULL | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Line Sales Credit | DELETE | NULL | Yes | 2 | Order Line | Line | Closed | Yes |
| Line Sales Credit | UPDATE | Percent | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Line Sales Credit | UPDATE | Percent | Yes | 2 | Order Line | Line | Closed | Yes |
| Line Sales Credit | UPDATE | Sales Credit Type | Yes | 1 | Order Line | Lines | Invoice Interfaced | Yes |
| Line Sales Credit | UPDATE | Sales Credit Type | Yes | 2 | Order Line | Line | Closed | Yes |
| Line Sales Credit | UPDATE | Salesperson | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Line Sales Credit | UPDATE | Salesperson | Yes | 2 | Order Line | Line | Closed | Yes |

Constraints for Order Header

Table 28–24 *Order Header Constraints*

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|--------------|-----------|-----------|-------------|--------------|-------------------|------------|---------------------|--|
| Order Header | CANCEL | NULL | Yes | 1 | Order Line | Line | Closed | Yes |
| Order Header | CANCEL | NULL | Yes | 2 | Order Line | Line | RMA Received | Yes |

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|--------------|-----------|----------------------|-------------|--------------|-------------------|------------|---------------------|--|
| Order Header | CANCEL | NULL | Yes | 3 | Order Line | Line | Ship Confirmed | Yes |
| Order Header | DELETE | NULL | Yes | 1 | Order Header | Order | Is Gapless | Yes |
| Order Header | DELETE | NULL | Yes | 2 | Order Header | Order | Booked | Yes |
| Order Header | UPDATE | NULL | Yes | 1 | Order Header | Order | Closed | Yes |
| Order Header | UPDATE | Conversion Rate | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Order Header | UPDATE | Conversion Rate Date | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Order Header | UPDATE | Conversion Type | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Order Header | UPDATE | Currency | Yes | 1 | Order Line | Line | Invoice Interfaced | Yes |
| Order Header | UPDATE | Customer | Yes | 1 | Order Header | Order | Internal Order | Yes |
| Order Header | UPDATE | Customer | Yes | 2 | Order Line | Line | Ship Confirmed | Yes |
| Order Header | UPDATE | Customer | Yes | 3 | Order Line | Line | Invoice Interfaced | Yes |
| Order Header | UPDATE | Customer | Yes | 4 | Order Line | Line | RMA REceived | Yes |
| Order Header | UPDATE | Invoice To | Yes | 1 | Order Header | Order | Internal Order | Yes |
| Order Header | UPDATE | Order Date Type Code | Yes | 1 | Order Header | Order | Lines Exist | Yes |
| Order Header | UPDATE | Order Number | Yes | 1 | Order Header | Order | Booked | Yes |
| Order Header | UPDATE | Order Number | Yes | 1 | Order Header | Order | Is Manual | Yes |

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|----------------|-----------|-------------------|-------------|--------------|-------------------|------------|-------------------------|--|
| Order Header | UPDATE | Order Number | Yes | 2 | Order Header | Order | Is Manual | Yes |
| Order Header | UPDATE | Order Number | Yes | 2 | Order Header | Order | Lines Exist | Yes |
| Order Header | UPDATE | Order Type | Yes | 1 | Order Header | Order | Is gapless | Yes |
| Order Header | UPDATE | Order Type | Yes | 2 | Order Header | Order | Booked | Yes |
| Order Header | UPDATE | Order Type | Yes | 3 | Order Header | Order | Lines Exist | Yes |
| Order Header | UPDATE | Price List | Yes | 1 | Order Header | Order | Header Invoice Complete | Yes |
| Order Header | UPDATE | Request Date | Yes | 1 | Order Header | Order | Internal Order | Yes |
| Order Header | UPDATE | Ship To | Yes | 1 | Order Header | Order | Internal Order | Yes |
| Order Header * | UPDATE | Tax Exempt | Yes | 1 | Order Header | Order | Tax Exemptions | Yes * |
| Order Header * | UPDATE | Tax Exempt Number | Yes | 1 | Order Header | Order | Tax Exemptions | Yes * |
| Order Header * | UPDATE | Tax Exempt Reason | Yes | 1 | Order Header | Order | Tax Exemptions | Yes * |
| Order Header | UPDATE | Warehouse | Yes | 1 | Order Header | Order | Internal Order | Yes |

Constraints for Order Price Adjustment

Table 28–25 *Order Price Adjustment Constraints*

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|------------------------|-----------|---------------------|-------------|--------------|------------------------|------------------------|-----------------------------|--|
| Order Price Adjustment | CREATE | NULL | Yes | 1 | Order Price Adjustment | Order Price Adjustment | Any Line Invoice Interfaced | Yes |
| Order Price Adjustment | DELETE | NULL | Yes | 1 | Order Price Adjustment | Order Price Adjustment | Any Line Invoice Interfaced | Yes |
| Order Price Adjustment | UPDATE | NULL | Yes | 1 | Order Price Adjustment | Order Price Adjustment | any_line_frozen | Yes |
| Order Price Adjustment | UPDATE | Arithmetic Operator | Yes | 1 | Order Price Adjustment | Order Price Adjustment | Any Line Invoice Interfaced | Yes |
| Order Price Adjustment | UPDATE | Operand | Yes | 1 | Order Price Adjustment | Order Price Adjustment | Any Line Invoice Interfaced | Yes |

Constraints for Order Sales Credit

Table 28–26 *Order Sales Credit Constraints*

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|--------------------|-----------|-----------|-------------|--------------|--------------------|--------------------|-----------------------------|--|
| Order Sales Credit | CREATE | NULL | Yes | 1 | Order Sales Credit | Order Sales Credit | Any Line Invoice Interfaced | Yes |

| Entity | Operation | Attribute | Seeded Flag | Group Number | Validation Entity | Record Set | Validation Template | Seeded Condition exists for constraint |
|--------------------|-----------|-------------------|-------------|--------------|--------------------|--------------------|-----------------------------|--|
| Order Sales Credit | CREATE | NULL | Yes | 2 | Order Header | Order | Closed | Yes |
| Order Sales Credit | DELETE | NULL | Yes | 1 | Order Sales Credit | Order Sales Credit | Any Line Invoice Interfaced | Yes |
| Order Sales Credit | DELETE | NULL | Yes | 2 | Order Header | Order | Closed | Yes |
| Order Sales Credit | UPDATE | Percent | Yes | 1 | Order Sales Credit | Order Sales Credit | Any Line Invoice Interfaced | Yes |
| Order Sales Credit | UPDATE | Percent | Yes | 2 | Order Header | Order | Closed | Yes |
| Order Sales Credit | UPDATE | Sales Credit Type | Yes | 1 | Order Sales Credit | Order Sales Credit | Any Line Invoice Interfaced | Yes |
| Order Sales Credit | UPDATE | Sales Credit Type | Yes | 2 | Order Header | Order | Closed | Yes |
| Order Sales Credit | UPDATE | Salesperson | Yes | 1 | Order Sales Credit | Order Sales Credit | Any Line Invoice Interfaced | Yes |
| Order Sales Credit | UPDATE | Salesperson | Yes | 2 | Order Header | Order | Closed | Yes |

The information provided within this appendix is subject to change without notice.

Pricing Attribute Seed Data

Topics covered in this appendix include the following:

- [Pricing Attribute Seed Data](#) on page C-2
- [Demand Planning PTE Attributes](#) on page C-3
- [Intercompany Transaction PTE Attributes](#) on page C-4
- [Logistics PTE Attributes](#) on page C-6
- [Order Fulfillment PTE Attributes](#) on page C-8

Pricing Attribute Seed Data

This appendix lists the seeded Oracle Pricing Contexts and default pricing attribute sourcing rules.

To find an attribute, see the Pricing Transaction Entity (PTE) section where the attribute is sourced. For example, to find a product attribute called *Item Category* for Order Fulfillment, go to the Order Fulfillment PTE Attributes section and look at the Product Attributes table.

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

Table 28–27 Key of Short Names used in the Attribute tables

| Short name | Definition |
|------------|--------------------------|
| AM | Attribute Mapping |
| AMM | Attribute Mapping Method |
| ASO | Oracle Order Capture |
| IC | Intercompany Transaction |
| Lmt | Limits |
| ONT | Order Management |
| OKC | Oracle Contracts Core |
| Prec | Precedence |
| UE | User Entered |
| — | No value/not applicable |

Demand Planning PTE Attributes

The following section displays the attributes for the Demand Planning Pricing Transaction Entity (PTE).

Pricing Attributes

There are no seeded pricing attributes for this PTE.

Product Attributes

There are no seeded product attributes for this PTE.

Qualifier Attributes

The following table lists the seeded qualifier attributes for the Demand Planning PTE:

Table 28–28 Seeded Qualifier Attributes: Demand Planning PTE

| Context | Attribute | Prec | Mapped Value | Value Set Name | Level | AMM | Lmt | Req Type |
|---------|----------------|------|----------------------|-------------------|-------|-----|-----|----------|
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | LINE | UE | Yes | ASO |
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | LINE | UE | Yes | ASO |
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | LINE | UE | Yes | ONT |
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | LINE | UE | Yes | ONT |

Intercompany Transaction PTE Attributes

The following section displays the attributes for the Intercompany Transaction Pricing Transaction Entity (PTE).

Pricing Attributes

There are no seeded pricing attributes for this PTE.

Product Attributes

The following table lists the seeded product attributes for the Intercompany Transaction PTE:

Table 28–29 Seeded Product Attributes: Intercompany Transaction PTE

| Context | Attribute | Prec | Mapped Value | Value Set Name | Level | AMM | Lmt | Request Type |
|---------|-------------|------|--------------------|----------------|-------|-----|-----|--------------|
| Item | Item Number | 220 | PRICING_ATTRIBUTE1 | - | LINE | AM | Yes | ASO |
| Item | Item Number | 220 | PRICING_ATTRIBUTE1 | - | LINE | AM | Yes | IC |
| Item | Item Number | 220 | PRICING_ATTRIBUTE1 | - | LINE | AM | Yes | OKC |
| Item | Item Number | 220 | PRICING_ATTRIBUTE1 | - | LINE | AM | Yes | ONT |

Qualifier Attributes

The following table lists the seeded qualifier attributes for the Intercompany Transaction PTE:

Table 28–30 Seeded Qualifier Attributes: Intercompany Transaction PTE

| Context | Attribute | Prec | Mapped Value | Value Set Name | Level | AMM | Lmt | Req Type |
|---------|----------------|------|----------------------|-------------------|-------|-----|-----|----------|
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | LINE | UE | Yes | ASO |
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | LINE | UE | Yes | ASO |
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | LINE | UE | Yes | ONT |
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | LINE | UE | Yes | ONT |

Logistics PTE Attributes

The following table lists the seeded pricing attributes for the Logistics Pricing Transaction Entity (PTE):

Pricing Attributes

There are no seeded pricing attributes for this PTE.

Product Attributes

The following table lists the seeded product attributes for the Logistics PTE:

Table 28–31 Seeded Product Attributes: Logistics PTE

| Context | Attribute | Prec | Mapped Value | Value Set Name | Level | AMM | Lmt | Req Type |
|---------|-----------|------|--------------------|----------------|-------|-----|-----|----------|
| Item | All Items | 315 | PRICING_ATTRIBUTE3 | QP:ITEM_ALL | LINE | UE | Yes | ASO |
| Item | All Items | 315 | PRICING_ATTRIBUTE3 | QP:ITEM_ALL | LINE | UE | Yes | ONT |
| Item | All Items | 315 | PRICING_ATTRIBUTE3 | QP:ITEM_ALL | LINE | UE | Yes | OKC |

Qualifier Attributes

The following table lists the seeded qualifier attributes for the Logistics PTE:

Table 28–32 Seeded Qualifier Attributes: Logistics PTE

| Context | Attribute | Prec | Mapped Value | Value Set Name | Level | AMM | Lmt | Req Type |
|---------|----------------|------|----------------------|------------------------|-------|-----|-----|----------|
| MODLIST | Price List | 140 | QUALIFIER_ATTRIBUTE4 | QP_SRS_PRICE_LIST_NAME | LINE | UE | Yes | ASO |
| MODLIST | Price List | 140 | QUALIFIER_ATTRIBUTE4 | QP_SRS_PRICE_LIST_NAME | LINE | UE | Yes | ASO |
| MODLIST | Price List | 140 | QUALIFIER_ATTRIBUTE4 | QP_SRS_PRICE_LIST_NAME | LINE | UE | Yes | ONT |
| MODLIST | Price List | 140 | QUALIFIER_ATTRIBUTE4 | QP_SRS_PRICE_LIST_NAME | LINE | UE | Yes | ONT |
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | LINE | UE | Yes | ASO |

Table 28–32 Seeded Qualifier Attributes: Logistics PTE

| Context | Attribute | Prec | Mapped Value | Value Set Name | Level | AMM | Lmt | Req Type |
|---------|----------------|------|----------------------|-------------------|-------|-----|-----|----------|
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | LINE | UE | Yes | ONT |
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | LINE | UE | Yes | ONT |
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | LINE | UE | Yes | ASO |

Order Fulfillment PTE Attributes

The following section displays the attributes for the Order Fulfillment Pricing Transaction Entity (PTE): 2466771

Pricing Attributes

The following table lists the seeded pricing attributes for the Order Fulfillment PTE:

Table 28–33 Seeded Pricing Attributes: Order Fulfillment PTE

| Context | Attribute | Prec | Mapped Value | Value Set Name | Level | AMM | Lmt | Req Type |
|-------------------|---------------------------------|------|---------------------|-------------------|-------|-----|-----|----------|
| Pricing Attribute | Administration Cost | 780 | PRICING_ATTRIBUTE17 | QP: Number | LINE | AM | Yes | ONT |
| Pricing Attribute | Customer Item | 720 | PRICING_ATTRIBUTE11 | QP_CUSTOMER_ITEMS | LINE | AM | Yes | ONT |
| Pricing Attribute | Duty Cost | 760 | PRICING_ATTRIBUTE15 | QP: Number | LINE | AM | Yes | ONT |
| Pricing Attribute | Estimated Transportation Charge | 830 | PRICING_ATTRIBUTE24 | QP: Number | LINE | AM | No | ONT |
| Pricing Attribute | Estimated Transportation Price | 820 | PRICING_ATTRIBUTE23 | QP: Number | LINE | AM | No | ONT |
| Pricing Attribute | Export Cost | 750 | PRICING_ATTRIBUTE14 | QP: Number | LINE | AM | Yes | ONT |
| Pricing Attribute | Freight Cost | 770 | PRICING_ATTRIBUTE16 | QP: Number | LINE | AM | Yes | ONT |
| Pricing Attribute | Grade | 782 | PRICING_ATTRIBUTE19 | OPM_QC_GRADE | LINE | AM | Yes | ONT |
| Pricing Attribute | Handling Cost | 740 | PRICING_ATTRIBUTE13 | QP: Number | LINE | AM | Yes | ONT |
| Pricing Attribute | Insurance Cost | 730 | PRICING_ATTRIBUTE12 | QP: Number | LINE | AM | Yes | ONT |
| Pricing Attribute | Parent List Price | 710 | PRICING_ATTRIBUTE10 | QP: Number | LINE | AM | Yes | ASO |

Table 28–33 Seeded Pricing Attributes: Order Fulfillment PTE

| Context | Attribute | Prec | Mapped Value | Value Set Name | Level | AMM | Lmt | Req Type |
|-------------------|-----------------------|------|---------------------|----------------|-------|-----|-----|----------|
| Pricing Attribute | Parent List Price | 710 | PRICING_ATTRIBUTE10 | QP: Number | LINE | AM | Yes | ONT |
| Pricing Attribute | Transportation Charge | 810 | PRICING_ATTRIBUTE21 | QP: Number | LINE | AM | Yes | ONT |
| Pricing Attribute | Transportation Price | 800 | PRICING_ATTRIBUTE20 | QP: Number | LINE | AM | Yes | ONT |

Product Attributes

The following table lists the seeded product attributes for the Order Fulfillment PTE:

Table 28–34 Seeded Product Attributes: Order Fulfillment PTE

| Context | Attribute | Prec | Mapped Value | Value Set Name | Level | AMM | Lmt | Req Type |
|---------|---------------|------|--------------------|----------------|-------|-----|-----|----------|
| Item | All Items | 315 | PRICING_ATTRIBUTE3 | QP: ITEM_ALL | LINE | AM | Yes | ASO |
| Item | All Items | 315 | PRICING_ATTRIBUTE3 | QP: ITEM_ALL | LINE | AM | Yes | OKC |
| Item | All Items | 315 | PRICING_ATTRIBUTE3 | QP: ITEM_ALL | LINE | AM | Yes | ONT |
| Item | Item Category | 290 | PRICING_ATTRIBUTE2 | - | LINE | AM | Yes | ASO |
| Item | Item Category | 290 | PRICING_ATTRIBUTE2 | - | LINE | AM | Yes | OKC |
| Item | Item Category | 290 | PRICING_ATTRIBUTE2 | - | LINE | AM | Yes | ONT |
| Item | Item Number | 220 | PRICING_ATTRIBUTE1 | - | LINE | AM | Yes | ASO |

Table 28–34 Seeded Product Attributes: Order Fulfillment PTE

| Context | Attribute | Prec | Mapped Value | Value Set Name | Level | AMM | Lmt | Req Type |
|---------|-------------|------|--------------------|----------------|-------|-----|-----|----------|
| Item | Item Number | 220 | PRICING_ATTRIBUTE1 | - | LINE | AM | Yes | OKC |
| Item | Item Number | 220 | PRICING_ATTRIBUTE1 | - | LINE | AM | Yes | ONT |
| Item | Item Number | 220 | PRICING_ATTRIBUTE1 | - | LINE | AM | Yes | IC |

Qualifier Attributes

The following table lists the seeded qualifier attributes for the Order Fulfillment PTE:

Table 28–35 Seeded Qualifier Attributes: Order Fulfillment PTE

| Context | Attribute | Prec | Mapped Value | Value Set Name | Level | AMM | Lmt | Req Type |
|----------|----------------|------|----------------------|-------------------|-------|-----|-----|----------|
| Customer | Agreement Name | 210 | QUALIFIER_ATTRIBUTE7 | QP_AGREEMENT_NAME | BOTH | AM | Yes | ASO |
| Customer | Agreement Name | 210 | QUALIFIER_ATTRIBUTE7 | QP_AGREEMENT_NAME | BOTH | AM | Yes | ASO |
| Customer | Agreement Name | 210 | QUALIFIER_ATTRIBUTE7 | QP_AGREEMENT_NAME | BOTH | AM | Yes | OM |
| Customer | Agreement Name | 210 | QUALIFIER_ATTRIBUTE7 | QP_AGREEMENT_NAME | BOTH | AM | Yes | OM |
| Customer | Agreement Type | 240 | QUALIFIER_ATTRIBUTE8 | QP_AGREEMENT_TYPE | BOTH | AM | Yes | ASO |
| Customer | Agreement Type | 240 | QUALIFIER_ATTRIBUTE8 | QP_AGREEMENT_TYPE | BOTH | AM | Yes | ASO |
| Customer | Agreement Type | 240 | QUALIFIER_ATTRIBUTE8 | QP_AGREEMENT_TYPE | BOTH | AM | Yes | ONT |
| Customer | Agreement Type | 240 | QUALIFIER_ATTRIBUTE8 | QP_AGREEMENT_TYPE | BOTH | AM | Yes | ONT |
| Customer | Customer Class | 310 | QUALIFIER_ATTRIBUTE1 | QP_CUSTOMER_CLASS | BOTH | AM | Yes | ASO |
| Customer | Customer Class | 310 | QUALIFIER_ATTRIBUTE1 | QP_CUSTOMER_CLASS | BOTH | AM | Yes | ASO |

Table 28–35 Seeded Qualifier Attributes: Order Fulfillment PTE

| Context | Attribute | Prec | Mapped Value | Value Set Name | Level | AMM | Lmt | Req Type |
|----------|----------------|------|----------------------|------------------------|-------|-----|-----|----------|
| Customer | Customer Class | 310 | QUALIFIER_ATTRIBUTE1 | QP_CUSTOMER_CLASS | BOTH | AM | Yes | OKC |
| Customer | Customer Class | 310 | QUALIFIER_ATTRIBUTE1 | QP_CUSTOMER_CLASS | BOTH | AM | Yes | OKC |
| Customer | Customer Name | 260 | QUALIFIER_ATTRIBUTE2 | QP_CUSTOMERS | BOTH | AM | Yes | ASO |
| Customer | Customer Name | 260 | QUALIFIER_ATTRIBUTE2 | QP_CUSTOMERS | BOTH | AM | Yes | OKC |
| Customer | Customer Name | 260 | QUALIFIER_ATTRIBUTE2 | QP_CUSTOMERS | BOTH | AM | Yes | ONT |
| Customer | Customer Name | 260 | QUALIFIER_ATTRIBUTE2 | QP_CUSTOMERS | BOTH | AM | Yes | ONT |
| Customer | Site Use | 270 | QUALIFIER_ATTRIBUTE5 | QP_CUSTOMER_SITES | BOTH | AM | Yes | ASO |
| Customer | Site Use | 270 | QUALIFIER_ATTRIBUTE5 | QP_CUSTOMER_SITES | BOTH | AM | Yes | ASO |
| Customer | Site Use | 270 | QUALIFIER_ATTRIBUTE5 | QP_CUSTOMER_SITES | BOTH | AM | Yes | OKC |
| Customer | Site Use | 270 | QUALIFIER_ATTRIBUTE5 | QP_CUSTOMER_SITES | BOTH | AM | Yes | OKC |
| Customer | Site Use | 270 | QUALIFIER_ATTRIBUTE5 | QP_CUSTOMER_SITES | BOTH | AM | Yes | ONT |
| Customer | Site Use | 270 | QUALIFIER_ATTRIBUTE5 | QP_CUSTOMER_SITES | BOTH | AM | Yes | ONT |
| MODLIST | Price List | 140 | QUALIFIER_ATTRIBUTE4 | QP_SRS_PRICE_LIST_NAME | BOTH | AM | Yes | ASO |
| MODLIST | Price List | 140 | QUALIFIER_ATTRIBUTE4 | QP_SRS_PRICE_LIST_NAME | BOTH | AM | Yes | ASO |
| MODLIST | Price List | 140 | QUALIFIER_ATTRIBUTE4 | QP_SRS_PRICE_LIST_NAME | BOTH | AM | Yes | ONT |
| MODLIST | Price List | 140 | QUALIFIER_ATTRIBUTE4 | QP_SRS_PRICE_LIST_NAME | BOTH | AM | Yes | ONT |

Table 28–35 Seeded Qualifier Attributes: Order Fulfillment PTE

| Context | Attribute | Prec | Mapped Value | Value Set Name | Level | AMM | Lmt | Req Type |
|---------|----------------|------|-----------------------|--------------------|-------|-----|-----|----------|
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | BOTH | AM | Yes | ASO |
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | BOTH | AM | Yes | ASO |
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | BOTH | AM | Yes | ONT |
| Order | Blanket Number | 600 | QUALIFIER_ATTRIBUTE3 | QP_BLANKET_NUMBER | BOTH | AM | Yes | ONT |
| Order | Customer PO | 440 | QUALIFIER_ATTRIBUTE12 | QP_CUSTOMER_PO | BOTH | AM | Yes | ASO |
| Order | Customer PO | 440 | QUALIFIER_ATTRIBUTE12 | QP_CUSTOMER_PO | BOTH | AM | Yes | ASO |
| Order | Customer PO | 440 | QUALIFIER_ATTRIBUTE12 | QP_CUSTOMER_PO | BOTH | AM | Yes | ONT |
| Order | Customer PO | 440 | QUALIFIER_ATTRIBUTE12 | QP_CUSTOMER_PO | BOTH | AM | Yes | ONT |
| Order | OrderType | 470 | QUALIFIER_ATTRIBUTE9 | QP_ORDER_TYPES_ALL | BOTH | AM | Yes | ASO |
| Order | OrderType | 470 | QUALIFIER_ATTRIBUTE9 | QP_ORDER_TYPES_ALL | BOTH | AM | Yes | ASO |
| Order | OrderType | 470 | QUALIFIER_ATTRIBUTE9 | QP_ORDER_TYPES_ALL | BOTH | AM | Yes | ONT |
| Order | OrderType | 470 | QUALIFIER_ATTRIBUTE9 | QP_ORDER_TYPES_ALL | BOTH | AM | Yes | ONT |

Qualifier Seed Data

Topics covered in this appendix include [Qualifier Seed Data](#) on page D-2

Qualifier Seed Data

This appendix lists the predefined Oracle Pricing Qualifier Contexts and default qualifier attribute sourcing rules.

- [Table 28–36](#) displays default qualifier contexts information.
- [Table 28–37](#) displays the default *header* qualifier attribute sourcing mapping information.
- [Table 28–38](#) displays the default *line* qualifier attribute sourcing mapping information.

Table 28–36 *Qualifier Contexts*

| Hierarchy | | Qualifier | Qualifier Attribute | Table validated Value Set Name |
|----------------|------------|----------------|-----------------------|---|
| Name | Precedence | Attribute | data source | *indicates non table validated value set |
| Customer | 260 | Customer Name | QUALIFIER_ATTRIBUTE2 | RA_CUSTOMERS |
| | 310 | Customer Class | QUALIFIER_ATTRIBUTE1 | AR_LOOKUPS |
| | 270 | Site Use | QUALIFIER_ATTRIBUTE5 | RA_CUSTOMERS, RA_ADDRESSES_ALL, RA_SITE_USES_ALL, AR_LOOKUPS |
| | 250 | Ship To | QUALIFIER_ATTRIBUTE11 | RA_CUSTOMERS, OE_SHIP_TO_ORGS_V |
| | 280 | Bill To | QUALIFIER_ATTRIBUTE14 | OE_INVOICE_TO_ORGS_V, RA_CUSTOMERS |
| | 210 | Agreement Name | QUALIFIER_ATTRIBUTE7 | OE_AGREEMENTS |
| Customer (con) | 240 | Agreement Type | QUALIFIER_ATTRIBUTE8 | QP_LOOKUPS |
| | 230 | GSA | QUALIFIER_ATTRIBUTE15 | FND_LOOKUPS |
| | 320 | Sales Channel | QUALIFIER_ATTRIBUTE3 | OE_LOOKUPS |

Table 28–36 Qualifier Contexts

| Hierarchy | | Qualifier | Qualifier Attribute | Table validated Value Set Name |
|-----------|------------|------------------------|-----------------------|---|
| Name | Precedence | Attribute | data source | *indicates non table validated value set |
| Orders | 340 | Account Type | QUALIFIER_ATTRIBUTE12 | AR_CUSTOMER_PROFILE_CLASSES_V |
| | 470 | Order Type | QUALIFIER_ATTRIBUTE9 | OE_ORDER_TYPES_V |
| | 480 | Order Category | QUALIFIER_ATTRIBUTE13 | OE_LOOKUPS |
| | 510 | Order Date | QUALIFIER_ATTRIBUTE1 | QP_DATE * |
| | 520 | Request Date | QUALIFIER_ATTRIBUTE17 | QP_DATE * |
| | 530 | Pricing Date | QUALIFIER_ATTRIBUTE14 | QP_DATE * |
| | 440 | Customer PO | QUALIFIER_ATTRIBUTE12 | OE_ORDER_LINES_ALL, OE_ORDER_HEADERS_ALL |
| | 450 | Line Type | QUALIFIER_ATTRIBUTE2 | OE_LINE_TYPES_V |
| | 460 | Line Category | QUALIFIER_ATTRIBUTE19 | OE_LOOKUPS |
| | 490 | Source Type | QUALIFIER_ATTRIBUTE15 | OE_LOOKUPS |
| | 540 | Ship From | QUALIFIER_ATTRIBUTE18 | OE_SHIP_FROM_ORGS_V |
| | 550 | Shipment Priority Code | QUALIFIER_ATTRIBUTE16 | OE_LOOKUPS |
| | 560 | Shippable Flag | QUALIFIER_ATTRIBUTE10 | FND_LOOKUPS |
| | 570 | Shipped Flag | QUALIFIER_ATTRIBUTE11 | FND_LOOKUPS |
| | 580 | Freight Cost Type Code | QUALIFIER_ATTRIBUTE20 | WSH_LOOKUPS |
| Modlist | 110 | List Line Number | QUALIFIER_ATTRIBUTE2 | QP_LIST_LINES |

Table 28–36 Qualifier Contexts

| Hierarchy | | Qualifier | Qualifier Attribute | Table validated Value Set Name |
|--------------|------------|-----------------------|-----------------------|--|
| Name | Precedence | Attribute | data source | *indicates non table validated value set |
| | 120 | Coupon Number | QUALIFIER_ATTRIBUTE3 | QP_COUPONS |
| | 130 | Promotion Number | QUALIFIER_ATTRIBUTE1 | QP_LIST_HEADERS_VL |
| | 140 | Price List | QUALIFIER_ATTRIBUTE4 | QP_LIST_HEADERS_VL |
| Terms | 660 | Payment Term | QUALIFIER_ATTRIBUTE1 | RA_TERMS |
| | 640 | Freight Terms | QUALIFIER_ATTRIBUTE10 | OE_FRGHT_TERMS_ACTIVE_V |
| | 650 | Shipping Terms | QUALIFIER_ATTRIBUTE11 | OE_SHIP_METHODS_V |
| Volume | 500 | Order Amount | QUALIFIER_ATTRIBUTE10 | QP_NUMBER * |
| Volume (con) | 590 | Period 1 Order Amount | QUALIFIER_ATTRIBUTE12 | QP_NUMBER * |
| | 600 | Period 2 Order Amount | QUALIFIER_ATTRIBUTE13 | QP_NUMBER * |
| | 610 | Period 3 Order Amount | QUALIFIER_ATTRIBUTE11 | QP_NUMBER * |
| | 620 | Line Weight | QUALIFIER_ATTRIBUTE14 | QP_NUMBER * |
| | 630 | Line Volume | QUALIFIER_ATTRIBUTE15 | QP_NUMBER * |

Table 28–37 Default Header Qualifier Source Attribute Mapping

| Context | Qualifier Attribute | Source Package | Source Function |
|-------------|-----------------------|---------------------|--|
| Customer | QUALIFIER_ATTRIBUTE1 | QP_SOURCING_API_PUB | Get_Customer_Class(OE_ORDER_PUB.G_LINE.sold_to_org_id) |
| | QUALIFIER_ATTRIBUTE12 | QP_SOURCING_API_PUB | Get_Account_Type(OE_ORDER_PUB.G_HDR.sold_to_org_id) |
| | QUALIFIER_ATTRIBUTE13 | QP_SOURCING_API_PUB | Get_Sales_Channel(OE_ORDER_PUB.G_HDR.sold_to_org_id) |
| | QUALIFIER_ATTRIBUTE1 | OE_ORDER_PUB | G_HDR.invoice_to_org_id |
| | QUALIFIER_ATTRIBUTE15 | QP_SOURCING_API_PUB | Get_GSA(OE_ORDER_PUB.G_HDR.sold_to_org_id) |
| | QUALIFIER_ATTRIBUTE15 | QP_SOURCING_API_PUB | Get_GSA(OE_ORDER_PUB.G_LINE.sold_to_org_id) |
| | QUALIFIER_ATTRIBUTE2 | OE_ORDER_PUB | G_HDR.sold_to_org_id |
| | QUALIFIER_ATTRIBUTE5 | QP_SOURCING_API_PUB | Get_Site_Use(OE_ORDER_PUB.G_HDR.ship_to_contact_id) |
| | QUALIFIER_ATTRIBUTE7 | OE_ORDER_PUB | G_HDR.agreement_id |
| | QUALIFIER_ATTRIBUTE8 | QP_SOURCING_API_PUB | Get_Agreement_Type(OE_ORDER_PUB.G_HDR.agreement_id) |
| Orders | QUALIFIER_ATTRIBUTE1 | OE_ORDER_PUB | G_HDR.ordered_date |
| | QUALIFIER_ATTRIBUTE9 | OE_ORDER_PUB | G_HDR.order_type_id |
| | QUALIFIER_ATTRIBUTE12 | OE_ORDER_PUB | G_HDR.cust_po_number |
| | QUALIFIER_ATTRIBUTE13 | OE_ORDER_PUB | G_HDR.order_category_code |
| Order (con) | QUALIFIER_ATTRIBUTE14 | OE_ORDER_PUB | G_HDR.pricing_date |
| | QUALIFIER_ATTRIBUTE17 | OE_ORDER_PUB | G_HDR.request_date |
| | QUALIFIER_ATTRIBUTE18 | OE_ORDER_PUB | G_HDR.ship_from_org_id |

Table 28–37 Default Header Qualifier Source Attribute Mapping

| Context | Qualifier Attribute | Source Package | Source Function |
|---------|-----------------------|---------------------|---|
| Terms | QUALIFIER_ATTRIBUTE20 | OE_CHARGE_PVT | GET_COST_TYPES |
| | QUALIFIER_ATTRIBUTE1 | OE_ORDER_PUB | G_HDR.payment_term_id |
| | QUALIFIER_ATTRIBUTE10 | OE_ORDER_PUB | G_HDR.freight_terms_code |
| Volume | QUALIFIER_ATTRIBUTE11 | OE_ORDER_PUB | G_HDR.shipping_method_code |
| | QUALIFIER_ATTRIBUTE1 | QP_SOURCING_API_PUB | Get_Order_Qty(OE_ORDER_PUB.G_HDR.header_id) |
| | QUALIFIER_ATTRIBUTE10 | QP_SOURCING_API_PUB | Get_Order_Amount(OE_ORDER_PUB.G_HDR.header_id) |
| | QUALIFIER_ATTRIBUTE11 | QP_SOURCING_API_PUB | Get_Period3_Order_Amount(OE_ORDER_PUB.G_HDR.sold_to_org_id) |
| | QUALIFIER_ATTRIBUTE12 | QP_SOURCING_API_PUB | Get_Period1_Order_Amount(OE_ORDER_PUB.G_HDR.sold_to_org_id) |
| | QUALIFIER_ATTRIBUTE13 | QP_SOURCING_API_PUB | Get_Period2_Order_Amount(OE_ORDER_PUB.G_HDR.sold_to_org_id) |

Table 28–38 Default Line Qualifier Attribute Source Mapping

| Context | Qualifier Attribute | Source Package | Source Function |
|----------|-----------------------|---------------------|--|
| Customer | QUALIFIER_ATTRIBUTE1 | QP_SOURCING_API_PUB | Get_Customer_Class(OE_ORDER_PUB.G_LINE.sold_to_org_id) |
| | QUALIFIER_ATTRIBUTE2 | OE_ORDER_PUB | G_LINE.sold_to_org_id |
| | QUALIFIER_ATTRIBUTE5 | QP_SOURCING_API_PUB | Get_Site_Use(OE_ORDER_PUB.G_LINE.ship_to_contact_id) |
| | QUALIFIER_ATTRIBUTE7 | OE_ORDER_PUB | G_LINE.agreement_id |
| | QUALIFIER_ATTRIBUTE8 | QP_SOURCING_API_PUB | Get_Agreement_Type(OE_ORDER_PUB.G_LINE.agreement_id) |
| | QUALIFIER_ATTRIBUTE11 | OE_ORDER_PUB | G_LINE.ship_to_org_id |
| | QUALIFIER_ATTRIBUTE12 | QP_SOURCING_API_PUB | Get_Account_Type(OE_ORDER_PUB.G_LINE.sold_to_org_id) |

Table 28–38 Default Line Qualifier Attribute Source Mapping

| Context | Qualifier Attribute | Source Package | Source Function |
|----------------|-----------------------|---------------------|--|
| | QUALIFIER_ATTRIBUTE13 | QP_SOURCING_API_PUB | Get_Sales_Channel(OE_ORDER_PUB.G_HDR.sold_to_org_id) |
| | QUALIFIER_ATTRIBUTE14 | OE_ORDER_PUB | G_LINE.invoice_to_org_id |
| Customer (con) | QUALIFIER_ATTRIBUTE15 | QP_SOURCING_API_PUB | Get_GSA(OE_ORDER_PUB.G_LINE.sold_to_org_id) |
| Order | QUALIFIER_ATTRIBUTE2 | OE_ORDER_PUB | G_LINE.line_type_id |
| | QUALIFIER_ATTRIBUTE10 | OE_ORDER_PUB | G_LINE.SHIPPABLE_FLAG |
| | QUALIFIER_ATTRIBUTE11 | OE_CHARGE_PVT | GET_SHIPPED_STATUS |
| | QUALIFIER_ATTRIBUTE12 | OE_ORDER_PUB | G_LINE.cust_po_number |
| | QUALIFIER_ATTRIBUTE14 | OE_ORDER_PUB | G_LINE.pricing_date |
| | QUALIFIER_ATTRIBUTE15 | OE_ORDER_PUB | G_LINE.source_type_code |
| | QUALIFIER_ATTRIBUTE16 | OE_ORDER_PUB | G_LINE.shipment_priority_code |
| | QUALIFIER_ATTRIBUTE17 | OE_ORDER_PUB | G_LINE.request_date |
| Terms | QUALIFIER_ATTRIBUTE1 | OE_ORDER_PUB | G_LINE.payment_term_id |
| | QUALIFIER_ATTRIBUTE10 | OE_ORDER_PUB | G_LINE.freight_terms_code |
| | QUALIFIER_ATTRIBUTE11 | OE_ORDER_PUB | G_LINE.shipping_method_code |
| Volume | QUALIFIER_ATTRIBUTE11 | QP_SOURCING_API_PUB | Get_Period3_Order_Amount(OE_ORDER_PUB.G_LINE.sold_to_org_id) |
| | QUALIFIER_ATTRIBUTE12 | QP_SOURCING_API_PUB | Get_Period1_Order_Amount(OE_ORDER_PUB.G_LINE.sold_to_org_id) |

Table 28–38 Default Line Qualifier Attribute Source Mapping

| Context | Qualifier Attribute | Source Package | Source Function |
|---------|-----------------------|----------------|-------------------------------------|
| | QUALIFIER_ATTRIBUTE14 | OE_CHARGE_PVT | GET_LINE_WEIGHT_OR_VOLUME('Weight') |
| | QUALIFIER_ATTRIBUTE15 | OE_CHARGE_PVT | GET_LINE_WEIGHT_OR_VOLUME('Volume') |
| Modlist | QUALIFIER_ATTRIBUTE4 | OE_ORDER_PUB | G_LINE.price_list_id |

Multimodal and Consolidated Shipments

Topics covered in this appendix include the following:

- [Introduction](#) on page E-2
- [Definitions](#) on page E-2
- [Business Scenario 1: Multimodal Shipment](#) on page E-3
- [Business Scenario 2: Consolidated Shipment](#) on page E-10

Introduction

This appendix presents two business scenarios:

- **Business Scenario 1: Multimodal Shipment:** An order needs to ship via different modes before arriving at its final destination.
- **Business Scenario 2: Consolidated Shipment:** An order sources from various locations needs to be staged at an intermediate location before arriving at its final destination.

Definitions

Consolidation: The collection of packages to be either dropped-off in a set or to share transportation costs. Consolidations may include shipments for an individual ship to location or for multiple different customers within the same vicinity.

Ship confirmation: To enter shipped quantity and inventory controls for specific shippable lines. You can ship confirm the same delivery/trip repeatedly until you close the delivery/trip. Once it is closed, no more changes can be made to a delivery/trip.

Ship-to location: The delivery point for consolidated shipments, gathered from multiple locations, that will be shipped to an intermediate and/or ultimate ship to location.

Delivery: A set of order lines to be shipped to a customer's ship-to location on a given date in a given vehicle. Multiple deliveries can be grouped into a single trip. A single delivery may include items from different sales orders and may include backorders as well as regular orders.

Ship confirmation: A process in Shipping Execution that enables you to identify shipped quantities, assign inventory control information for released lines, assign freight charges, and specify whether or not to backorder unfulfilled quantities of released line items.

Trip planning: The process of planning the necessary vehicles and grouping the scheduled shipments that will be included in a given trip. Planning the trip requires consideration of vehicle load capacities, container capacities and, in certain cases, the loading order for the customer's specified unload order.

Trip: An instance of a specific freight carrier departing from a particular location containing deliveries. The carrier may make other stops on its way from the starting point to its final destination. These stops may be for picking up or dropping off deliveries.

Stop: A location at which the trip is due for a pick-up or drop-off.

Shipment: An individual package sent to a customer. Thus, a shipment might contain an entire order, if all items in that order are pick released and packed together. A shipment might contain just part of an order that is pick released and packed. A shipment might also contain only part of a released order line, where some of the items on the picking slip are not in stock.

Ultimate ship-to location: The final destination of a shipment.

Business Scenario 1: Multimodal Shipment

Overview

When a customer's order needs to ship via different modes (i.e., air, ocean, truck) to arrive at the final destination, multimodal shipping must be used. This business process starts when your company receives an order from your customer; the items are picked, and you need to ship them using multiple modes of transportation.

Once the order line reaches the Order Management workflow Shipping Activity, Order Management calls Shipping Execution to identify the line as ready to import. When shipping imports the order line, Shipping Execution picks the items and autocreates a delivery. Once a delivery has been created, it can be assigned to the corresponding carriers via Trips. Shortly after assigning the Delivery to the Trips, the Delivery can be shipped.

A few quick setup steps can be followed to execute this scenario. Setting defaults in the Organization and Shipping Parameters will allow the streamlined Pick process to occur. Trips can be created to represent multiple carriers either before the order has been placed or during the order flow from entered to shipped.

Required Setup

To accomplish Multimodal Shipment, the following setups are required:

Organization Parameters

1. Navigate to the Organization Parameters window. N: Order Management > Shipping > Setup > Organization Parameters.
2. On the ATP, Pick, Item-Sourcing tab, ensure that the Pick Confirm Required check box is unchecked.

This will allow Inventory to automatically pick confirm each move order line.

Shipping Parameters

1. Navigate to the Shipping Parameters window. N: Order Management > Shipping > Setup > Shipping Parameters.
2. On the Pick Release tab, check Autocreate Deliveries to use the Delivery Grouping Rules you have defined to group delivery lines into deliveries.
3. Check Auto Allocate to use the Picking Rules that you have defined in Inventory to determine the source.

Note: If you prefer to manually create a Delivery ahead of time to assign Delivery Lines to, the Autocreate Deliveries box must be unchecked.

4. Navigate to the Delivery Grouping tab.
5. You can define delivery grouping rules, based on conditions that make sense to your business process. Ship from location and Ship to location are mandatory. These are the additional conditions:
 - Customer
 - Freight Terms
 - FOB Code
 - Intermediate Ship To Location
 - Ship Method

Picking Rules

4. Navigate to the Picking Rules window. N: Inventory > Setup > Rules > Picking.
6. When you define an item you choose a picking rule to determine the order in which revisions, lots, subinventories, and locators are picked for sales orders. Shipping Execution submits requests to Inventory, which uses the information you enter in the Picking Rules window to generate pick lists for sales orders. If you choose None for any of the criteria fields, Inventory ignores that criterion. For example, if you choose None for Revision, Inventory picks units of an item without regard to revision levels. Inventory looks at the picking criteria in the order in which they appear in the Picking Rules window. Then, Inventory looks at the options (except for None options) for each criterion in the order in which they appear beneath each criterion.

See

Oracle Inventory User's Guide

Defaulting Rules

1. Navigate to the Defaulting Setup - Entity Attributes window. N: Order Management > Setup > Rules > Defaulting.
2. Freight Terms and FOB are fields that appear on the Order Header that could be helpful to default during order entry. They may also be entered or the defaults overridden at the time the order is created. These fields can be entered until the Delivery has been Ship Confirmed. Once the Delivery has been Ship Confirmed, changes can not be made to the mentioned fields.

See

Oracle Order Management User's Guide

Define Location

1. Navigate to the Location window. N: Inventory > Setup > Organizations > Locations
2. An intermediate address can be assigned to a trip once a Location has been defined. This address will be used as the Pick-up or Drop-off location defined when a Delivery is assigned to a Trip. Upon saving the newly created Location, the system will generate a number which corresponds to the Location. In many cases, the Location may represent a Port or an Airport.

See

Oracle Inventory User's Guide

Process Steps

1. Enter and Book your order

Note: Import Delivery Lines must occur before order lines are visible in Shipping as delivery lines. This can be triggered manually or as a concurrent process that can be set to run at specific time intervals. Navigate: Shipping > Interfaces > Run > Import Delivery Lines (choose Order Management as the Parameter).

2. Launch Pick Release.

There are several ways to launch Pick Release however the most streamlined method would be to set up Pick Release to run as a concurrent process. Navigate: Shipping > Release Sales Orders > Release Sales Orders SRS.

Other methods for launching Pick Release include the following:

- From the Shipping Transactions form select a specific Delivery Line for Pick Release by selecting one or multi-selecting many Delivery Lines, then Navigate: Action > Launch Pick Release and click Go. (You can pick release by LPN(s) and once created, Deliveries, Stops and Trips can also be submitted for Pick Release through the Shipping Transactions form).
- Additionally, you can bring up the Release Sales Order form while in the Shipping Transactions form by using the Tools menu and selecting the Pick Release form.
- Finally, Pick Release can be run manually. Navigate: Shipping > Release Sales Orders > Release Sales Orders.

Note: When Pick Releasing using the Release Sales Order form, any of the defaults set in the Organization and Shipping Parameters can be overridden for that particular Pick Release.

3. Create Trips. Navigate: Order Management > Shipping > Transactions.

By default, you will be on the Trips tab. To create a Trip, click Detail and populate the information. At minimum, Name and Ship Method.

4. Save each Trip.

Example

When a delivery requires transportation on multiple carriers, the creation of a Trip is required for each carrier.

Figure 28–1 Create Trip 2 to follow Trip 1

Trip - 6078

Trip

Name6078

Ship MethodDHL

Carrier

Mode of Transport

☐ Consolidate

StatusOpen

Activity

Service Level

☐ Planned

Exceptions☐

Vehicle

Organization

Item Name

Number Prefix

87509

Arrive after Trip

Tender Status

Routing Instructions

[]

Actions

Calculate Weight/Vol

Go

Done

1) Assign Delivery to Trips

Using the Query Manager in the Shipping Transactions form, find the Delivery, click Details, select Assign to Trip from the actions menu, then click Go to assign the Delivery to each newly created Trip.

Figure 28–2 Assign Delivery to Trip 2 (same procedure for each Trip)

Assign Deliveries to Trip

Trip **6078**

Pick-up Stop

☐ New Location

Planned Arrival Date

Planned Departure Date

Stop Sequence Number

Drop-off Stop

☐ New Location **1190 : 34 River Street-Cleveland**

Planned Arrival Date

Planned Departure Date

Stop Sequence Number **20**

OK Cancel

2) View the Stops

From the Shipping Transactions form, click the Path by Stop tab and verify that there are two stops associated with each Trip.

Figure 28–3 View Path by Stop tab

Shipping Transactions

Query Context

| Location | Trip | Status | Activity | Planned Arrival Date |
|-----------------|-----------|--------|-------------------|----------------------|
| M1- Seattle | ML Trip 1 | Open | Awaiting Pickup | 18-DEC-2000 00:00:00 |
| ML Port of NY | ML Trip 1 | Open | Awaiting Drop off | |
| M1- Seattle | ML Trip 2 | Open | Awaiting Pickup | 18-DEC-2000 00:00:00 |
| ML Airport - CI | ML Trip 2 | Open | Awaiting Drop off | |
| M1- Seattle | ML Trip 3 | Open | Awaiting Pickup | 18-DEC-2000 00:00:00 |
| Nanterre1065 | ML Trip 3 | Open | Awaiting Drop off | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Actions

Lines/LPNs Delivery Path by Stop Path by Trip

3) Ship Confirm the Delivery

Navigate to the Shipping Transactions window. N: Order Management > Shipping > Transactions. Find your delivery. Highlight the desired Delivery, select Actions, choose Ship Confirm and click Go. The Ship Confirm window will appear. Click Ok to complete the process. Process Order API runs after the delivery has been Ship Confirmed.

Note: The options in the Auto-create Trip Options box are grayed out.

Update the status of the stops to Closed.

Inventory Interface will be submitted when the Pick-up Stop has been Closed. The delivery lines will now be available to the Receivables Interface.

Business Scenario 2: Consolidated Shipment

This scenario presents a solution in support of a process where items on a customer order are sourced from different geographical locations. The shipments containing the items are to be merged or consolidated at an intermediate location with the final delivery being made to the customer's ultimate ship to destination.

The release 11i data model supports the ability to create a multileg shipment and to manage the activities at each stop along the shipment's journey.

A sales order is placed for two items: a desktop CPU and a monitor. The order lines are booked and scheduled in Order Management. The inventory for the desktop CPU resides in the M1 Inventory organization and the Monitor resides in V1 Inventory organization.

The objective is to create a plan that enables the shipments of the individual items to be made from their respective Inventory organizations, merge or consolidate at an intermediate distribution center location, and deliver to the customers ultimate ship to location as a single shipment.

Creating Trips

Once the order is booked, the order lines are imported into Shipping Execution where the Transportation Planner has visibility to the lines. At this point, the planner creates Trip 1 (consisting of Carrier and vehicle information) for the desktop CPU located in Warehouse 1 in Seattle, WA. The key element depicting the Trip is the ship method. The creation of the Trip can be done in a variety of ways depending on your business process.

1. Autocreate Trip: When a Trip is created using the Autocreate Trip functionality, 2 stops are created. The first stop consists of the location where the shipment is picked up, (Ship From) and the second stop is the location where the shipment is dropped off (Ship To). In the business scenario we're describing, an intermediate stop needs to be defined and assigned to the Trip 1.
 1. Navigate to the Shipping Transactions form and the Query Manager.
 2. Enter criteria for the lines to ship.
 3. Multi-select lines.

4. Click Action, Select Autocreate Trips, and click Go. Oracle Shipping Execution creates the trips, creates the pick up and dropoff stops, autocreates the deliveries, and assigns the deliveries to trips.
2. Create Trip Manually: One of the two processes described would need to be performed in order to create Trip 2 for the Monitor originating from Warehouse V1 located in New York, and an ultimate destination of Chattanooga, TN. In the case of a manually created Trip, deliveries could either be auto created or manually created and subsequently assigned to the Trip.
 1. Navigate to the Shipping Transactions form.
 2. Click Trips in the Search for region.
 3. Click Find.
 4. Expand the Data Entry tree.
 5. Double-click Trip Data Entry.
 6. On the Trip form, enter Name, Ship Method, and Vehicle Info.
 7. Click Done.

Figure 28–4 Trip - New Window

Trip - New

Trip

Name: Status:

Ship Method: Activity:

Carrier: Service Level:

Mode of Transport:

☐ Consolidate ☐ Planned

Exceptions: ☐

Vehicle

Organization:

Item Name:

Number Prefix: Number:

Arrive after Trip: Tender Status:

Routing Instructions:

Actions:

Creating Locations and Stops

Creating Locations

In order to perform the merge or consolidation of the shipments originating from warehouse M1 and V1, a Stop must be defined to represent the Distribution Center in Troy Michigan. (A stop is a location within your network where a shipment can be picked up or dropped off.) In this scenario, this is a non-Oracle location. The location of the Distribution Center must also be set up in Inventory in order to be used when defining a Stop.

1. Navigate to the Location window. N: Inventory > Set up > Organizations > Locations

Figure 28–5 *Location Window*

2. Enter a Name.
3. Enter a Description
4. Optionally, enter an Inactive Date.

Note: The Address Style will default to United States. Use the list of values to change the Address Style.

5. Click the Address field.
6. Detail the address in the Location Address window.

Note: Once the location is defined, the Distribution Center can be define as a stop and ultimately assigned as intermediate stops to Trip 1 and Trip 2.

Creating Stops

To create and assign Trip 1 with the intermediate Stop (i.e. Distribution Center Location), the following process can be followed.

1. Navigate to the Shipping Transactions form.
2. In the Search for region, click Stops.
3. Click Find.
4. Expand Data Entry.
5. Double-click Stop Data Entry.
6. On the Stop form, select Loc and Trip from their lists of values.
7. Enter Planned Arrival and Departure Dates.
8. Click Done.

Figure 28–6 Stop Window

Stop - M1- Seattle:3455 108th Avenue-Seattle-WA

Stop

Location **M1- Seattle:3455 108th Avenue-Seattl** Status **Closed**

Trip **1000** Activity

Seal Code Exceptions ☐

Departure Fill % Sequence **10**

Planned Dates

Arrival

Departure **30-DEC-1997 15:51:28**

Actual Dates

Arrival

Departure **30-DEC-1997 15:51:28**

Departure Weight

Gross

Tare

Net

UOM

Departure Volume

Volume

UOM

[Trading Partner] ☐ ☐

Actions **Update Status** Go Done

Follow this same process for Trip 2.

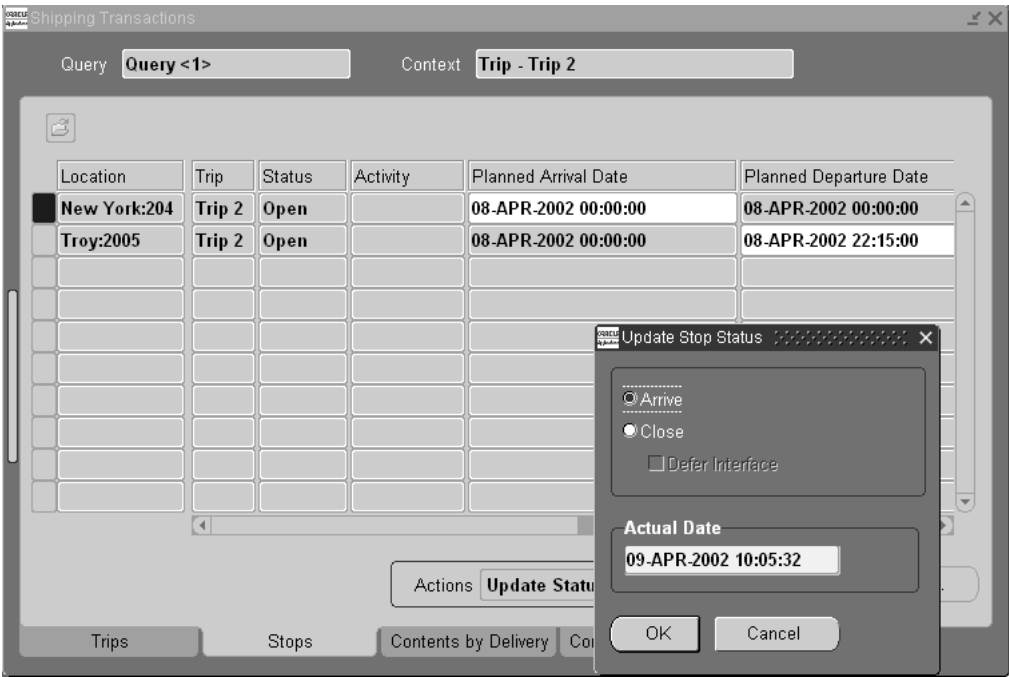
At this point of the consolidation solution, a delivery has been created for the material being sourced from Warehouse M1 and the delivery has been assigned to Trip 1. A delivery has also been created for the material being sourced from Warehouse V1 and the delivery has been assigned to Trip 2. The intermediate stop (i.e. Distribution Center Troy Michigan) has also been defined and assigned to Trip 1 and Trip 2.

A Stop consisting of the location of the distribution center has been assigned to Trip 1 and Trip 2. The data at this point is represented in the following table.

Table 28–39 Trip Information

| Trip | Pick up | Dropoff |
|-------------|----------------|----------------|
| 1 | M1 Seattle WA | Troy DC |
| 2 | V1 New York NY | Troy DC |

This screen represents similar data to Trip 2 described in our business scenario. The Trip is awaiting pick up at M1 warehouse.



The solution at this point is represented by a Trip 1 originating at warehouse M1 (Seattle) and dropping off at the Troy distribution center and Trip 2 originating from warehouse V1 (New York) and dropping off at the Troy distribution center stop.

The final step is to create a Trip 3 that originates at the Troy Distribution center, assign the deliveries that are on Trip 1 and 2 to Trip 3 and have the final drop off be the customers ultimate ship to destination.

To create trip 3:

1. Navigate to the Shipping Transactions form.
2. In the Search for region, click Trips.
3. Click Find.
4. Click Data Entry to expand the tree.
5. Double-click Trip Data Entry.
6. On the Trip form, enter Name, Ship Method, and Vehicle Info.

7. Click Done.
8. Navigate to the Shipping Transactions form.
9. Query the Deliveries from trip 1 and trip 2.
10. Click Action and select Assign to Trip.
11. Select trip 3, select New Location.
12. In Pickup Location, enter DC; in Dropoff Location, enter Cust.

Executing the Shipments

Pick Releasing the Trip

Since the shipments are originating from two separate locations, it is assumed that the execution processes would be performed independently. However, a single user can execute the releases from both locations.

What has been done up to this point is a plan. The plan cannot take effect until actual inventory is allocated to the deliveries and trips. At the highest level, this can be accomplished by pick releasing the trip. The individual delivery can be pick released as well.

To pick release a trip:

1. Navigate to the Shipping Transactions form.
2. Query Trip 1.
3. From the Action menu, select Launch Pick Release.
4. Click Go.

The same process is performed at warehouse V1 for Trip 2.

See

Oracle Shipping Execution User's Guide

Pick Slips will print at each of the warehouses indicating the items to be picked for their respective Trips.

There are many options as part of the Shipping Execution set up steps to allow each organization to set up how picking is done. For example, Pick Slip Grouping Rules can be used to determine how released lines are grouped on to Pick Slips.

Once the Trips from each warehouse are released, a bill of lading and Packing List can be generated for each delivery in the Trip. The Bill of Lading can be generated at Ship Confirmation as part of the Ship Confirm Doc Set or it can be generated before Ship Confirm.

Document Categories and Document Sequences must be Set up before Bills of Lading or Packing Slips can be generated.

See

Oracle Shipping Execution User's Guide

The Bill of Lading for Trip 1 and Trip 2 will indicate the Ship From Address as the M1 and V1 locations and the Ship To Address of the Distribution Center.

The actual intermediate ship to field has limited functionality in release 11i. In order to take full advantage of it, the order line must already contain the intermediate ship to information before being imported into shipping execution, i.e. if the Shipment from Warehouse M1 had the intermediate ship to information on the line prior to it's being imported into shipping execution, and there wasn't an intermediate stop assigned to the M1 trip, the bill of lading would print with three addresses. 1) The Ship from Address of warehouse M1, The intermediate address indicated on the shipment line, and the ultimate ship to of Chattanooga TN.

In the scenario we're defining, if intermediate ship to was used, the bill of lading for Trip 1 would print with the Ship from address of warehouse M1, an intermediate address of the Troy DC and the final ship to of the Troy DC. For Trip 1 the ultimate destination for Trip 1 is the Troy DC.

A packing list can be generated prior to ship confirmation similar to the Bill of lading. The following process can be used to generate the Packing List.

See

Oracle Shipping Execution User's Guide

Ship Confirming the Trip

The next step in the consolidation process is to Ship Confirm Trip 1 and Trip 2. This must be done at Inventory organization M1 and V1 in order to recognize revenue, decrement inventories, update Order Management and initiate the receivables interface to generate invoices.

The following screen depicts how the Trip originating in the M1 (Seattle) warehouse would look prior to Ship Confirmation and closing the stop at M1. In this example the Trip is named Trip 1.

Shipping Transactions

Query **Query <2>** Context **Line - 74056**

All

| Location | Trip | Status | Activity | Planned Arrival Date | Planned Departure Date |
|---------------|--------|--------|-------------------|----------------------|------------------------|
| Troy:2005 | Trip 3 | Open | Awaiting Pickup | 09-APR-2002 00:00:00 | 09-APR-2002 20:15:00 |
| Chattanooga:1 | Trip 3 | Open | Awaiting Drop off | 09-APR-2002 23:30:00 | 09-APR-2002 23:40:00 |
| Seattle:207 | Trip 1 | Open | Awaiting Pickup | 08-APR-2002 00:00:00 | 08-APR-2002 00:30:00 |
| Troy:2005 | Trip 1 | Open | Awaiting Drop off | 08-APR-2002 12:00:00 | 08-APR-2002 12:30:00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Actions **Update Status** Go... Detail... (J)

Lines/LPNs Delivery Path by Stop Path by Trip

- Navigate to the Shipping Transactions form.
- Query Trip 1.
- From the Actions menu, select Ship Confirm.
- Click Go.

Closing the stop sets the trip to an In Transit status.

See

Oracle Shipping Execution User's Guide

Changing Stop Status

At this point in the process, it is assumed that the delivery from the M1 warehouse and the delivery from the V1 warehouse are on the carrier's truck and in transit to the Troy Distribution Center.

In order to perform the next step in the process, a communication mechanism must be in place that lets the Oracle user know that the shipment has reached the Troy Distribution Center.

When the user is notified that the shipment has reached the Distribution Center, the following process can be used to update the stop.

- Navigate to the Shipping Transactions form.
- Query the Stop (Distribution Center.)
- From the Action menu, select Update Status.
- Click Go.
- Select Arrive and click OK.

The same process should be performed for Trip 2 once it reaches the Troy Distribution Center.

See

Oracle Shipping Execution User's Guide

The arrive step indicates the drop off of the trip. The deliveries from M1 Warehouse and V1 warehouse are now at the Troy Distribution Center.

Since the deliveries were assigned to trip 3 in the planning process, all that has to be done is print the new bill of lading for the final leg from the Troy DC to Chattanooga TN.

See

Oracle Shipping Execution User's Guide

Once the bill of lading from the Troy Distribution Center to The final drop off in Chattanooga is printed, the Troy Distribution Center stop can be closed. Updating the status of the stop closes the stop. Use the following process to close the stop.

- Navigate to the Shipping Transactions form.
- Query your Stop.
- Select the stop for Troy Distribution Center.
- From the Action menu, select Update Status.
- Click Go.
- Select Close.

See
Oracle Shipping Execution User's Guide

Index

A

access privileges. *See* pricing security, privileges

Account Generator

 workflow, 2-4

Accounting Rule

 order types, 2-93, 2-94

Advanced Pricing versus Basic Pricing, 14-4

Agreements

 transaction types, 2-90

agreements. *See* pricing, agreements

and, 4-73

Approvals

 upgraded orders, 2-39

Attachments

 copying, 2-169

 defining categories, 2-171

 defining in advance, 2-170

 defining rules, 2-171

 order import, 2-169

 overview, 2-167

 reports, 2-169

 security, 2-169

 viewing, 2-168

attributes, pricing. *See* pricing, attribute management

B

backordering, 21-2

backorders, 21-2

Back-to-Back Orders, 13-20

Basic Pricing. *See* pricing

Blanket Sales Agreements, 5-36

Profiles, 5-37

Booking

 Included Item Freeze Method, 2-37

 Tax calculation, 2-58, 2-59

Bulk Create Privileges page, 14-36

Bulk Update Entity Usage

 Confirmation page, 14-29

Bulk Update Entity Usage page, 14-28

C

Cancellations

 charges, 2-68

carriers, 4-43

change orders, 20-2

Constraints for Order Line, B-3

container-item relationships, 4-94

containers, 23-2

contexts, pricing. *See* pricing, attribute management

Credit Card, 2-162

 drop shipment, 2-163

 iPayment, 2-160

Credit Check Rules, 2-152

 defining, 2-153

Credit Checking

 assign credit usage rule set, 2-149

 assigning credit usage rule sets, 2-149

 credit check rules, 2-152

 credit profiles, 2-138, 2-142

 credit usage rule sets, 2-147

 deactivating, 2-160

 define credit usage rule sets, 2-147

 global credit checking, 2-139

 multi-currency, 2-140

- overview, 2-131
- payment terms, 2-138
- rules, 2-134
- tolerance percentage, 2-146
- transaction types, 2-137

Credit limits

- customer/customer site, 2-143
- item category, 2-143
- operating unit, 2-143
- order, 2-146

Credit Profiles, 2-142

- customer, 2-143
- defining, 2-144
- item category, 2-143
- operating unit default, 2-143

Credit Usage Rule Sets, 2-147

- assigning, 2-149
- defining, 2-148

Cross-selling, 5-39

Currency

- credit checking, 2-146
- multi currency credit checking, 2-140

Customer profiles

- create, 2-143

D

Deactivating Credit Checking, 2-160

- debugger, 4-118

Defaulting Rules

- defining, 2-121
- overview, 2-114

- defaulting rules, in pricing, 14-13

- delivery grouping parameters, 4-41

- document categories, 4-61

- Document Sequences, 2-76

- document sequences, 4-59

- document sets, 4-70

- Drop Shipments, 5-31

E

- Entity Usage page, 14-26

- entity usage. *See* pricing security

- Exposure

- credit limit tolerance, 2-146

- uninvoiced orders, 2-159

- Express Create Privilege page, 14-34

- Express create privilege page, 14-34

F

- formulas. *See* pricing, formulas

Freight and Special Charges

- calculation methods, 2-66

- changing and deleting, 2-68

- copying charges, 2-75

- cost types, 2-64

- credit checking, 2-159

- defining, 2-62

- freight terms, 2-63

- grouping, 2-64

- invoicing, 2-75

- qualifier/pricing attributes, 2-66

- returns, 2-74

- sub types, 2-72

- types, 2-64

- viewing and applying, 2-72

- freight carrier ship methods, 4-43

- freight costs, 4-54

G

GL

- Journals Display Inverse Rate, 2-50

- Global box, 14-23

- global usage in pricing security, 14-23

- GSA (Government Services Administration)

- pricing, 14-55

H

Holds

- defining, 2-163

- standard types, 2-166

I

- Integration points, 26-2

- Internal Orders, 5-29

- International Trade Management, 4-97
- International Trade Management Adapter, 4-97
- INV Capable to Promise, 2-51
- iPayment Processing, 2-160
 - authorizations, 2-162
 - changing, 2-162
 - risk, 2-161
 - security, 2-162
- Item Category
 - credit limits, 2-143
- ITM, 4-97

L

- line status, 22-2
 - ATO flow, 22-11
 - bill only, 22-13
 - delivery line, 22-13
 - drop ship, 22-13
 - order, 22-13
 - returns, 22-13
 - standard, 22-2
- LPNs, 23-2
 - assigning serial numbers, 23-16
 - creating, 23-9
 - packing, 23-11
 - customer items, 23-13
 - standard items, 23-12
- LRS
 - See Log roll-forward server (LRS), 8-1, B-1

M

- Manual Substitutions, 5-39
- Modifiers
 - freight and special charges, 2-62
- modifiers
 - controls and considerations, 14-65
 - unit of measure (UOM), 14-66
 - See also pricing, modifiers
- Multi Currency Credit Checking, 2-140
 - assign credit usage rule sets, 2-149
 - credit profiles, 2-144
 - credit usage rule sets, 2-147

O

- OM
 - Scheduling Role
 - CSR and Scheduler, 2-182
 - CSR only, 2-181
 - Scheduler only, 2-182
- Operating Unit
 - credit limits, 2-143
 - parameter, 2-54
- Oracle Pricing Administrator responsibility, in
 - pricing security, 14-5, 14-14
- Oracle Shipping Debugger, 4-118
- Order Import
 - defining sources, 2-97
- Order Information Portal, 7-2
- Order Numbering, 2-76
- Orders
 - defining holds, 2-163

P

- packing workbench, 23-14
- Parameters
 - Customer Relationships, 2-53
 - Item Validation Organization, 2-53
 - operating unit, 2-54
- Payment Terms
 - credit checking, 2-138
- Payment Type, 2-133
- pick release parameters, 4-33
- pick slip grouping rules, 4-78
- price lists, 14-49
 - features, 14-50
 - maintaining, 14-49
 - using precedence, 14-52
- pricing
 - agreements
 - defining special terms, 14-70
 - overview, 14-68
 - revising, 14-69
 - setting up, 14-71
 - types, 14-68
 - attribute managment, 14-72
 - linking attributes to a Pricing Transaction

- Entity, 14-80
- Pricing Transaction Entities, seeded, 14-86
- setting up contexts and attributes, 14-72
- viewing a Pricing Transaction Entity (PTE), 14-86
- defaulting rules, 14-13
- features, 14-5
- formulas
 - overview, 14-59
 - seeded freight and special charge formulas, 14-60
 - setting up, 14-60
- GSA (Government Services Administration)
 - pricing, 14-55
 - setting up, 14-57
- implementation process flow, 14-9
- implementing from fresh install, 14-9
- implementing from upgrade, 14-11
- modifiers
 - adjustments, 14-62
 - application methods, 14-64
 - implementing, 14-61
 - manual adjustments, 14-66
 - overview, 14-61
- overview, 14-2
- security. *See* pricing security
- terminology, 14-3
- Pricing Freight Charge Types, 2-71
- pricing security
 - assigning pricing entities to operating units, 14-23
 - bulk privileges, creating, 14-36
 - bulk update entity usage, 14-28
 - changes to pricing windows, 14-20
 - entity usage, 14-23
 - bulk update, 14-28
 - global usage, 14-23
 - global usage and Global box, 14-23
 - implementation steps, 14-18
 - Oracle Pricing Administrator, 14-5, 14-14
 - privileges
 - creating
 - bulk create, 14-36
 - express create, 14-34
 - overview, 14-30
 - precedence for multiple access privileges, 14-30
 - setup suggestions, 14-31
 - profile options for security
 - QP_Security Control, 14-48
 - QP_Security Default Maintain Privilege, 14-40
 - QP_Security Default ViewOnly Privilege, 14-40
 - settings compared, 14-42
 - turning security on with QP_Security Control, 14-48
 - terminology, 14-16
- Pricing Transaction Entity (PTE). *See* pricing, attribute management
- printers, 4-73
- Privileges page, 14-32
- privileges. *See* pricing security, privileges
- Privileges Summary page, 14-39
- Processing Constraints, 2-98
 - action, 2-101
 - Applicable To Tab, 2-108
 - attribute, 2-101
 - attribute field, 2-105
 - Condition Tab, 2-106
 - conditions, 2-102
 - defining, 2-104
 - entity, 2-100
 - example, 2-109
 - group number, 2-102
 - group number field, 2-106
 - not (modifier) check box, 2-103, 2-107
 - operation, 2-100
 - operation field, 2-105
 - record set field, 2-107
 - record sets, 2-103, 2-112
 - scope, 2-102
 - scope field, 2-106
 - special considerations, 2-103
 - system changes, 2-101
 - system changes field, 2-106
 - table listing
 - Line Price Adjustments, B-14
 - Lines Sales Credit, B-14

- Order Header, B-15
- Order Line, B-3
- Order Price Adjustments, B-18
- Order Sales Credit, B-18
- terminology, 2-100
- usage, 2-110
- user action field, 2-105
- user changes, 2-101
- user changes field, 2-106
- user message field, 2-107
- validation entity, 2-102
- validation entity field, 2-107
- validation template, 2-103
- validation template field, 2-107
- validation templates, 2-110
- window, 2-104
- Procure to Order, 13-20
- Profile options
 - Add Customers, 2-26
 - Administer Public Queries, 2-27
 - Apply Automatic Attachments, 2-27, 2-168, 2-169
 - Auto Push Group Date, 2-27
 - AutoSchedule, 2-28
 - Charges for backorders, 2-69
 - Charges for Included Item, 2-68
 - Charging Privilege, 2-29, 2-72, 2-74
 - Context Responsibility for Upgraded Orders, 2-31
 - Credit Card Privileges, 2-31, 2-162
 - Credit Memo Transaction Type, 2-32
 - Credit Salesperson for Freight on Sales, 2-32
 - Cust Item Shows Matches, 2-32
 - Customer Relationships, 2-32
 - Deactivate Pricing at Scheduling, 2-33
 - Debug Level, 2-33
 - Debug Log directory, 2-33
 - Discounting Privilege, 2-34, 2-91
 - Estimated Authorization Validity Period, 2-35
 - GL Journals Display Inverse Rate, 2-50
 - GSA Discount Violation Action, 2-36
 - Included Item Freeze Method, 2-36
 - INV Capable to Promise, 2-51
 - Invoice Numbering Method, 2-37
 - Invoice Source, 2-37

- Invoice Transaction Type, 2-37
- Item Flexfield, 2-38
- Item View Method, 2-38
- Log Directory for Generated Packages, 2-38
- Negative Pricing, 2-39
- Non-Delivery Invoice Source, 2-40
- Notification Approver, 2-39
- OM
 - Add Customers, 2-26
- Orders Purge Per Commit, 2-40
- Over Return Tolerance, 2-40
- Over Shipment Invoice Basis, 2-40
- Over Shipment Tolerance, 2-41, 2-176
- Party Totals Currency, 2-41
- Payment Method for Credit Card Transactions, 2-41
- Promotion Limit Violation Action, 2-42
- Reservation Time Fence, 2-44
- Return Item Mismatch Action, 2-44
- Return Unfulfilled Referenced Line Action, 2-44
- Risk Factor Threshold for Electronic Payments, 2-44, 2-161, 2-164
- Schedule Line on Hold, 2-46
- Show Discount Details on Invoice, 2-47
- Show Line Details, 2-47
- Source Code, 2-47
- Under Return Tolerance, 2-48
- Under Shipment Tolerance, 2-48
- Unit Price Precision Type, 2-48
- Use Configurator, 2-47

Q

- QP_Security Control profile option, 14-48
- QP_Security Default Maintain Privilege profile option, 14-40
- QP_Security Default ViewOnly Privilege profile option, 14-40
- Quick Sales Orders, 5-34
- QuickCodes
 - defining, 2-61
 - Oracle Pricing and Shipping Execution, 2-66, 2-71

R

- regions, 4-110
- regions and zones, 4-110
- Related Items, 5-39
 - Cross-selling, 5-39
 - Supercession, 5-39
 - Up-selling, 5-40
- release rules, 4-79
- release sequence rules, 4-84
- Returns, 5-14
- roles and users, 4-14
 - copying a role, 4-22
 - defining a role, 4-15
 - expiration dates, 4-24
 - granting roles to users, 4-22
 - updating, 4-28
 - upgrade and new installation considerations, 4-15

S

- Sales Credits Types
 - defining, 2-96
- Setting Up
 - recommended setup, 2-3
- Shipping Debugger, 4-118
- shipping exceptions, 4-90
- Shipping Execution
 - change orders, 20-2
 - exception messages, 20-9
 - migration, 28-2
 - parameters, 4-29
 - profile options, 4-10
 - setup steps, 4-6
 - transaction parameters, 4-38
- Shipping Execution setup, 4-3
- Shipping Freight Charge types, 2-71
- Shipping Tolerances
 - defining, 2-177
 - over shipments, 2-176
 - overview, 2-175
 - report, 2-177
 - under shipments, 2-176
- Substitutions, 5-39

T

- Tax
 - taxation in order management, 2-57
- Tax Code, 2-60
 - processing constraints, 2-57
- TeleSales to Sales Order Window, 5-38
- Trading Community Architecture
 - terminology, 2-184
 - usage within OM, 2-184
- Transaction Types
 - defining, 2-79, 2-89
 - line flow assignments, 2-88
 - order/line level, 2-80
 - workflow assignments, 2-86
- transportation calendars, 4-87

U

- Up-Selling, 5-39

V

- Viewing Attachments, 2-168
- Viewing Notifications, 2-76

W

- Windows
 - Attribute Defaulting Rules, 2-125
 - Charges, 2-72
 - Defaulting Condition Templates, 2-123
 - Defaulting Setup-Entity Attributes, 2-122
 - Document Categories, 2-172, 2-173
 - Document Sequences, 2-77
 - find credit usage rule sets, 2-150
 - Holds, 2-163
 - OM Freight Cost Types, 2-69
 - Oracle Pricing Quickcodes, 2-71
 - Order Import Sources, 2-97
 - Order Management Quickcodes, 2-61
 - Order Management Transaction Types, 2-89
 - Parameters, 2-53
 - Processing Constraints, 2-104
 - Record Sets, 2-112
 - Sales Credit Types, 2-96

- Shipping/Pricing Freight Charge Types, 2-71
- Validation Templates, 2-110
- Workflow, 5-12
 - using in Order Management, 5-11
- Workflows
 - viewing notifications, 2-76

Z

- zones, 4-110

