

# Oracle® Shopfloor Management

User's Guide

Release 11i

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Oracle Shopfloor Management User's Guide, Release 11i

Part No. A83717-04

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**Oracle Shopfloor Management User's Guide, Release 11*i***

**Part No. A83717-04**

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.

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# Preface

## Audience for This Guide

Welcome to Release 11*i* of the *Oracle® Shopfloor Management User's Guide*.

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

- The principles and customary practices of your business area.
- Oracle Shop Floor Management

If you have never used Oracle Shop Floor Management, Oracle suggests you attend one or more of the Oracle Shop Floor Management training classes available through Oracle University.

- The Oracle Applications graphical user interface.

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

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

## How To Use This Guide

This guide contains the information you need to understand and use Oracle Shop Floor Management.

- Chapter 1 provides an overview of Oracle Shop Floor Management. This includes a description of the process flow and features used to manage the various different stages of a product as it moves through the shop floor.

- Chapter 2 provides setup procedures for Oracle Shop Floor Management and related products including Oracle Bills of Material, Oracle Work in Process, and Oracle Inventory.

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**Note:** Implementation information and procedures are contained in this chapter.

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- Chapter 3 describes network routings—dynamic routings based on the next operation with jumps allowed to other operations. You will learn about routing network functionality and how to define them.
- Chapter 4 explains how to create Oracle Shop Floor Management lot transactions including lot moves, operation jumps, lot splitting, and lot merging.
- Chapter 5 describes lot genealogy which enables you to view the historical production information of a lot.
- Chapter 6 explains co-product functionality that extends standard Oracle Bills of Material definitions.
- Chapter 7 explains the costing functionality provided in Oracle Shop Floor Management including operation yield enabling you to compute yield at every operation.
- The Appendix provides you with complete navigation paths to all windows in Oracle Shop Floor Management.

## 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/>.

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## **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 Shop Floor Management.

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

## **Online Documentation**

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

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

Oracle Shop Floor Management shares business and setup information with other Oracle Applications products. Therefore, you may want to refer to other user's guides when you set up and use Oracle Shop Floor Management.

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

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

## Guides Related to All Products

### Oracle Applications User's Guide

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

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

## User Guides Related to This Product

### Oracle 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.

### Oracle Business Intelligence System Implementation Guide

This guide provides information about implementing Oracle Business Intelligence (BIS) in your environment.

### **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, multiple subelements, and activity-based costing. It also provides comprehensive valuation and variance reporting.

### **BIS 11i User Guide Online Help**

This guide is provided as online help only from the BIS application and includes information about intelligence reports, Discoverer workbooks, and the Performance Management Framework.

### **Oracle General Ledger User's Guide**

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

### **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 to the system and design reports.

### **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 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.

### **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.

## **Installation and System Administration**

### **Oracle Applications Concepts**

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

### **Installing Oracle Applications**

This guide provides instructions for managing the installation of Oracle Applications products. In Release 11*i*, much of the installation process is handled using Oracle Rapid Install, which minimizes the time to install Oracle Applications, the Oracle8 technology stack, and the Oracle8*i* Server technology stack by automating many of the required steps. This guide contains instructions for using Oracle Rapid Install and lists the tasks you need to perform to finish your

installation. You should use this guide in conjunction with individual product user's guides and implementation guides.

### **Upgrading Oracle Applications**

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

### **Maintaining Oracle Applications**

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

### **Oracle Applications System Administrator's Guide**

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

### **Oracle Alert User's Guide**

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

### **Oracle Applications Developer's Guide**

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

### **Oracle Applications User Interface Standards for Forms-Based Products**

This guide contains the user interface (UI) standards followed by the Oracle Applications development staff. It describes the UI for the Oracle Applications

products and how to apply this UI to the design of an application built by using Oracle Forms.

## **Other Implementation Documentation**

### **Oracle Applications Product Update Notes**

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

### **Multiple Reporting Currencies in Oracle Applications**

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

### **Multiple Organizations in Oracle Applications**

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

### **Oracle Workflow Guide**

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

### **Oracle Applications Flexfields Guide**

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

### **Oracle eTechnical Reference Manuals**

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

### **Oracle Manufacturing APIs and Open Interfaces Manual**

This manual contains up-to-date information about integrating with other Oracle Manufacturing applications and with your other systems. This documentation includes API's and open interfaces found in Oracle Manufacturing.

### **Oracle Order Management Suite APIs and Open Interfaces Manual**

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

### **Oracle Applications Message Reference Manual**

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

## **Training and Support**

### **Training**

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

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

## Support

From on-site support to central support, our team of experienced professionals provides the help and information you need to keep Oracle Shop Floor 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<sup>®</sup> 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.

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# Shop Floor Management Overview

This chapter introduces Oracle Shop Floor Management and describes its features including:

- Overview of Shop Floor Management on page 1-2
- Shop Floor Management Flow on page 1-3
- Phantoms on page 1-4
- Network Routings on page 1-6
- Enhanced Lot Functionality on page 1-7
- Co-Products on page 1-7
- Operation Yields on page 1-8
- Integration with Oracle Applications on page 1-8

## Overview of Shop Floor Management

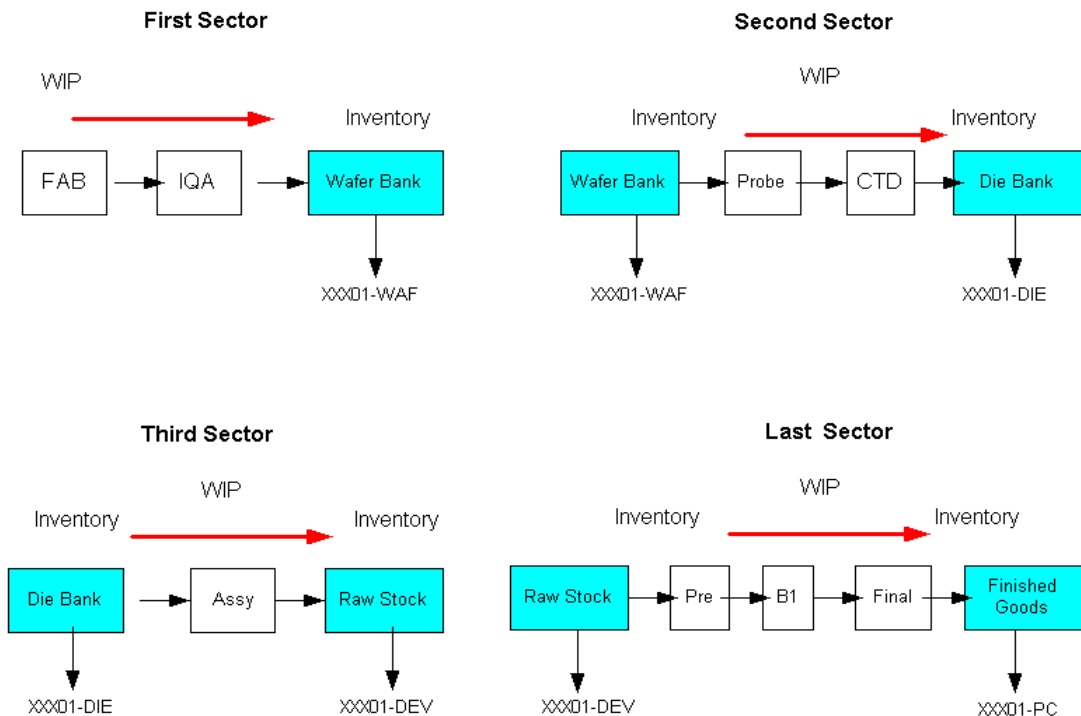
Oracle Shop Floor Management manages complex shop floor information and bridges the gap between Oracle Manufacturing and the shop floor by expanding the capabilities of Oracle's Manufacturing Applications. It enhances the core product by making integrated shop floor/MES information available at the enterprise level to combine manufacturing excellence with customer responsiveness. Oracle Shop Floor Management uses a single data repository to guarantee information consistency for manufacturing execution. You can create and release discrete jobs and lot based jobs in the same manufacturing organization. The major features include:

- MES/ERP(Enterprise Resource Planning) integration
- Network routings
- Complex lot transactions
- Lot Genealogy
- Operation yield costing
- Co-product definition

## Shop Floor Management Flow

The process flow begins when a primary component for the lot based job is created. When the lot is created and released, it moves through a series of operations to an inventory location, where it becomes an Inventory Lot. The Inventory Lot then moves into the next bill of material level—becoming a new WIP Lot. The new WIP lot moves through a series of operations, and is completed into inventory location for the next sector. This process is repeated through each sector until the last sector is complete.

The following graphic displays the Shop Floor Management flow just described.



## Multilevel Bill of Material

The relationship between the items that represent the different forms the lot takes is stored as a multi-level bill of material. These items are called the primary assembly of that level of the bill. Each of these primary assembly items has its own routing.

A lot sector converts inventory lot components into a lot based job. When the job is completed it becomes an inventory lot for the next lot sector.

Lot based jobs support operation pull, push and phantom supply types—other supply types are not currently supported.

### Phantoms

Phantom assemblies are non-stocked assemblies used to group material. In discrete jobs, all routing operations are known; in lot based jobs only the first operation is known. The difference in using phantom supply type in lot based jobs is:

- Lot based jobs consider only the components and resource on the primary path of the routing if the Use Phantom Routing flag is set to Yes. Otherwise it considers all the components of the phantom in the primary and alternate path.
- Material requirements are exploded during job creation for the first operation, and during the subsequent move or jump operation.
- While performing update routing or update assembly transactions at the Queue intraoperation step, if you have phantom exploded components at the current operation—you must manually reverse the charges.

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**Note:** Lot based jobs copy only the first operation, and do not explode the phantom assemblies at the last operation. Phantom material attached to the last operation is exploded when the job is moved to the last operation.

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Before using phantom assemblies, the following parameters in Oracle Bills of Material need to be set:

- Use Phantom Routings—Indicates if the resource and overhead costs (including those for outside processing resources assigned to phantom routing operations) associated with the components are ignored, or charged to the job's assembly. Also determines whether only the components on the primary path, or all the components in the primary and alternate are exploded.

- **Inherit Phantom Operation Sequence**—This parameter is used by discrete and lot based jobs; the phantom routing operation sequence number is always inherited from the parent network operation sequence.

The following table explains the behavior of the phantom assemblies based on the BOM parameter set up for phantoms:

Scenario	Name of the Parameter	Setting	Behavior
Scenario 1	BOM: Use phantom routing	Yes	Material in primary path is exploded
Scenario 1	BOM: Inherit phantom operation sequence	Yes	The lot based job does not inherit phantom operation sequence from the phantom network but the operation sequence number is always inherited from the parent network operation sequence.
Scenario 2	BOM: Use phantom routing	No	Material in primary and alternate path is exploded. No resource requirement is created
Scenario 2	BOM: Inherit phantom operation sequence	No	The lot based job does not inherit phantom operation sequence from the phantom network but the operation sequence number is always inherited from the parent network operation sequence.
Scenario 3	BOM: Use phantom routing	Yes	Not Applicable
Scenario 3	BOM: Inherit phantom operation sequence	No	Not Applicable

**Note:** Oracle Shop Floor Management has some limitations while using the phantom supply type material:

- If the Bill of Material of the assembly calls for a phantom supply type material at the first operation, the Lot Creation window does not allow you to create the job and a warning message is displayed.
- Phantom material is always a non stocked item.

- You are not allowed to update the phantom supply type material using Material Transaction window.

## Network Routings

Oracle Shop Floor Management provides flexible routing ability for lot based jobs. This type of routing is used in businesses such as the semiconductor industry where the paths that jobs take is not always known or understood at the time the job is created. Depending on the initial operation, subsequent operation paths are decided.

Flexible, or network routings enable you to define all possible operations paths that a job can take. This networked predefined path definition provides for dynamic flexible operation. Numerous possibilities are defined as part of a routing network, any one being selectable based on the outcome of the last operation within the job performed.

The routing network must have only one beginning and one ending operation. As the job goes through the production cycle, you build a history of operations that the WIP lot actually moves, selectable from the possibilities defined in the network.

A network of operations is available to model your shop floor, define possible rework points, or define a linear path. It consists of a series of nodes and paths which make up the routing network, and it is referenced by the Move Lot Based Jobs window to determine which operations a job can traverse.

## Enhanced Lot Functionality

### Lot Transactions

WIP Lot Move transactions reference network routings and intra-operation steps. You can jump to other operations not defined on a network routing, and also put a job on hold at any operation.

The flow of a lot begins when a WIP Lot is created for the first sector's primary component and released. When it is completed, —it becomes an Inventory lot and can be issued to the next sector as the primary component. Oracle Shop Floor Management lot transactions include:

- Network routing moves
- Operation jumps
- Lot splitting
- Lot merging
- Lot renaming
- Bonus lots
- Translate lots
- Transfer lots
- Operation holds

### Lot Genealogy

The Lot Genealogy enables you to view the genealogy, or historical production information of a lot. It provides you with detailed lot information about the sectors the lot has moved through, and related lot transactions. It also enables you to view forward and backward direction or genealogy. View Genealogy to view historical informations in the Lot Genealogy window, see: [Displaying Genealogy and Where used Views](#), on page 5-3.

## Co-Products

Oracle Shop Floor Management co-products extend standard Oracle Bills of Material definitions. You can use the Define Co-Products window to define an item as the primary component of several end items (for example, one ungraded die which produces several die grades). You define the primary end item and the expected distribution across all the end items. Upon entering this information in the

Define Co-Products window, the bill of material of the end items are automatically created.

## Operation Yields

Operation Yield costing enables you to include the cost of operation yield in the cost rollup of an assembly. You can also track the operation yield related variance by operation for lot based jobs. Oracle Shop Floor Management costing includes these features:

- *Yield Definitions*—yields are defined at the operations level allowing cumulative and reverse cumulative yield calculations at every operation.
- *Costing Support*—cost rollup considers material, overhead and resource costs using operation yield at the operation rather than the shrinkage.

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**Note:** Oracle Shop Floor Management only uses the standard costing method.

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## Integration with Oracle Applications

Oracle Shop Floor Management expands the capabilities of Oracle's Manufacturing applications by making integrated shop floor information available at the enterprise level to combine manufacturing capabilities with customer responsiveness. This integration information allows scheduling and execution components to work together for job releases on the shop floor.

Oracle Shop Floor Management integrates with the following Oracle applications:

- Inventory
- Bills of Material
- Work in Process
- Cost Management
- Quality
- Warehouse Management
- Manufacturing Scheduling

If Oracle Manufacturing Scheduling is enabled, you can use the Scheduler Workbench to schedule discrete jobs created in lot based organizations.

- Advanced Supply Chain Planning

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**Note:** Oracle Shop Floor Management does not integrate with Oracle Master Scheduling/MRP.

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## Component Picking

You can perform component picking transactions for lot based jobs using the rules based system in Oracle Warehouse Management. The Component Pick Release window is used to select requirements and create move orders. It is a graphical workbench that displays fields applicable to the job or schedule type accessed. The features in component picking for lot based jobs include:

- Material source is based on Oracle Inventory allocation rules or Oracle Warehouse Management rules recommendations
- The status for lot based jobs picked must be Released or Complete – Charges Allowed
- Components are picked based on the network routing
- Move order quantities are calculated as assemblies per operation multiplied by the number of components, or:

The sum of all the quantities in each intra-operation step (Queue, Run, To Move, Reject and Scrap)

Multiplied by the component's quantity per assembly

### See Also

[Overview of Component Picking](#), *Oracle Work in Process User's Guide*

[Navigating on the Component Pick Release Window](#), *Oracle Work in Process User's Guide*

[Using the Component Pick Release Window](#), *Oracle Work in Process User's Guide*

## Completions into License Plate Numbers

If Oracle Warehouse Management is installed, you can use License Plate Number functionality for tracking completions. License plate numbers are unique identifiers for tracking the contents of containers in receiving, work in process, inventory, shipping, and in-transit. You can perform assembly completions into license plate

numbers. The container's genealogy provides content and transaction history for each license plate.

**See Also**

[Explaining LPN and Cross Docking Put Away](#), *Oracle Warehouse Management User's Guide*

[Explaining License Plate Management](#), *Oracle Warehouse Management User's Guide*

This chapter provides information about setting up Oracle Shop Floor Management. The following topics included are:

- Overview of Setting Up on page 2-2
- Related Product Setup Steps on page 2-3
- Setup Flowchart and Checklist on page 2-4
- Setup Steps on page 2-7
- Defining Parameters on page 2-11
- Defining and Viewing Lot Sector Extensions on page 2-13
- Defining Standard Operation Details on page 2-16
- Attaching Files to Job Operations on page 2-16
- Profile Options on page 2-17

## Overview of Setting Up

This section contains an overview of the steps to complete to set up Oracle Shop Floor Management. For instructions on how to complete each task, see the setup sections indicated in each step.

Setup involves several phases, including setting up other applications including Oracle Inventory, Oracle Bills of Material, and Oracle Work in Process. You may not need to perform some of the steps below if you've already performed a common-application setup.

### Set Up Oracle Applications Technology

The setup steps in this chapter tell you how to implement the parts of Oracle Applications specific to Oracle Shop Floor 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 allow access to a specific set of business data and transactions, and assigning individual users to one or more of these responsibilities

### 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.

**See Also**

Implementation Wizard, *Oracle Applications Implementation User's Guide*

Setting Up Oracle Workflow, *Oracle Applications Object Library User's Guide*

**Related Product Setup Steps**

Oracle Shop Floor Management requires that Oracle Bills of Material, Oracle Cost Management, Oracle Inventory, and Oracle Work in Process are set up first.

**Oracle Inventory**

Set up Oracle Inventory as described in [Overview of Setting Up, Oracle Inventory User's Guide](#). Ensure that all the following steps have been completed:

- Create your organizations
- Define your organization parameters
- Define items and item costs
- Define your units of measure
- Define your subinventories
- Define your stock locators
- Define WIP supply types

**Oracle Bills of Material**

Set up Oracle Bills of Material as described in [Overview of Setting Up, Oracle Bills of Material User's Guide](#). Ensure that all the following steps have been completed:

- Define resources
- Define your departments
- Define your standard operations
- Create your workday calendar

### **Oracle Cost Management**

Set up Oracle Bills of Material as described in [Overview of Setting Up, Oracle Cost Management User's Guide](#). Ensure that all the following steps have been completed:

- Define your cost types and cost elements
- Define your default WIP accounting classes for categories
- Define resources, material sub-elements, overheads, and overhead defaults

### **Oracle Work in Process**

Set up Oracle Bills of Material as described in [Overview of Setting Up, Oracle Work in Process User's Guide](#). Ensure that all the following steps have been completed:

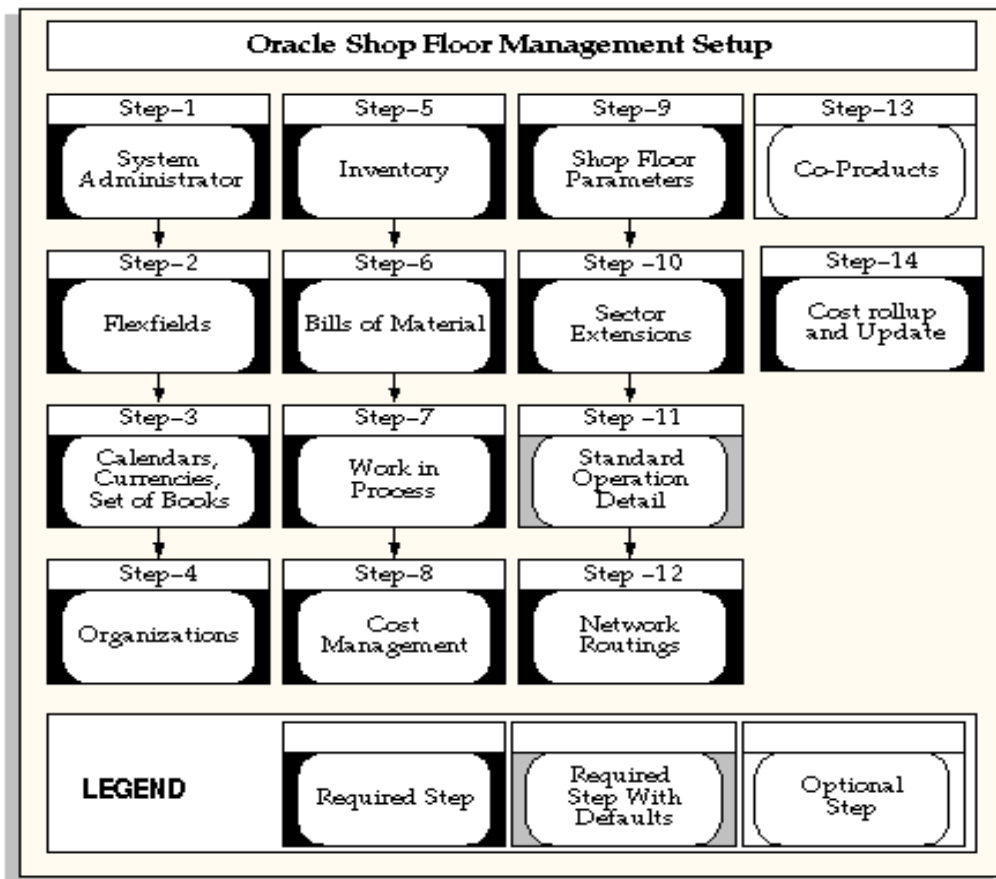
- Define WIP accounting class types
- Define WIP parameters

## **Setup Flowchart and Checklist**

Some of the steps outlined in this flowchart and setup checklist are:

- Required
- Required Step With Defaults
- Optional

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 need to change them, you should perform that setup step. You need to perform optional steps only if you plan to use the related feature or complete certain business functions.



## Setup Checklist

The following table lists setup steps. After you log on to Oracle Applications, complete these required steps to implement Oracle Shop Floor Management.

**Table 2–1 Required Setup Steps**

<b>Step No.</b>	<b>Step</b>
Step 1	Set Up System Administrator
Step 2	Set Up Key Flexfields
Step 3	Set Up Calendars, Currencies, and Set of Books
Step 4	Set Up Organizations
Step 5	Set Up Oracle Inventory
Step 6	Set Up Oracle Bills of Material
Step 7	Set Up Oracle Work in Process
Step 8	Set Up Oracle Cost Management
Step 9	Define Oracle Shop Floor Management Parameters
Step 10	Define Sector Extensions
Step 11	Define Standard Operation Details
Step 12	Create Network Routings
Step 13	Define Co-Products
Step 14	Perform Cost Rollup and Cost Update for Assemblies

## Setup Steps

### **Step 1: Set Up System Administrator (Required)**

This step is performed while setting up different Oracle Applications products and involves the following tasks:

- Define responsibilities. See: Oracle System Administration, *Oracle Applications System Administrator's Guide*
- Set up printers (optional). See: Setting Up Your Printers, *Oracle Applications System Administrator's Guide*

### **Step 2: Set Up Key Flexfields (Required)**

You need to coordinate the flexfields of other applications you have set up before defining key flexfields here. See: Oracle Applications Flexfield Guide.

### **Step 3 (Required): Set Up Calendars, Currencies, and Set of Books**

This step is performed while setting up different Oracle Applications products. This step involves the following tasks:

- Set up calendars by defining period types, accounting calendar, transaction calendar, and workday calendar
- Define currencies and currency rates
- Assign your set of books to a responsibility
- Set up accounting code combinations

See: Oracle General Ledger User's Guide.

### **Step 4: Set Up Organizations**

You may not need to perform this step if you have already installed and set up Oracle inventory or performed a common-applications set up. This step involves the following tasks, for more information.

- Define organization lookups
- Define business groups
- Define organizations
- Define human resources organizations
- Define legal entities organizations

- Set up inventory organizations
- Define organization hierarchies
- Assign business groups and operating units to responsibilities

### **Step 5: Set Up Inventory**

This step includes defining Oracle Inventory components including:

- Define organizations
- Define items
- Define units of measure
- Define subinventories
- Define stock locators
- Define WIP supply types

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**Note:** Organizations for Oracle Shop Floor Management should meet the following conditions: Standard Costing Method, Inventory Parameters Lot Uniqueness set to None, and WIP Parameter Default Lot Number Type set to Job Name.

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### **Step 6: Set Up Oracle Bills of Material**

This step includes defining Oracle Bills of Material components including:

- Define BOM parameters
- Define resources
- Define department classes
- Define your departments
- Define your standard operations
- Create your workday calendar

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**Note:** Lot based jobs support operation pull, push, and phantom supply types—other supply types are not currently supported.

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## Step 7: Set Up Oracle Work in Process

This step includes defining Oracle Work in Process components including:

- Define WIP accounting classes

The WIP accounting class types used for Oracle Shop Floor Management are *Lot Based Standard Discrete* and *Expense Non-standard Lot Based*. See: [WIP Accounting Classes](#), *Oracle Work in Process User's Guide*.

- Define WIP parameters

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**Note:** Organizations for Oracle Shop Floor Management should set WIP Parameters Default Lot Number Type to Job Name, and Requisition Creation time to At Operation.

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## Step 8: Set Up Oracle Cost Management

This step includes defining Oracle Cost Management components including:

- Define cost types
- Define your default WIP accounting classes for categories
- Define resources, material sub-elements, overheads, and overhead defaults
- Define costs for your item numbers

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**Note:** Oracle Shop Floor Management only uses the standard costing method.

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## Step 9: Define Oracle Shop Floor Management Parameters

This step defines default values for the transactions you are creating including:

- Designations for lots created
- Designations for jobs completed
- Define accounts for miscellaneous transactions
- Define default WIP Accounting class for lot based jobs and non-standard lot based jobs
- Define co-product supply for lot based jobs

See: [Defining Parameters](#), on page 2-11, and [WIP Accounting Classes](#), *Oracle Work in Process User's Guide*.

### **Step 10: Define Sector Extension Code**

Sector extension codes are associated with assemblies and subinventories. These codes are appended to the job name when the assembly is completed to the subinventory.

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**Note:** Subinventories are valid stocking points when they are associated with sector extension codes.

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See: [Defining and Viewing Lot Sector Extensions](#), on page 2-13.

### **Step 11: Define Standard Operation Details**

This step defines the steps within an operation that are mandatory, and the location used for stocking points. See: [Defining Standard Operation Details](#), on page 2-16.

### **Step 12: Create Network Routings**

In this step you create a network of operations which include primary paths and alternate paths. You can define a separate routing for each item. See: [Creating a Network Routing](#), on page 3-4.

### **Step 13: Define Co-Products**

Co-product functionality gives you the ability to define an item as the primary component of several end items; the bill of material of the end items are automatically created. See: [Defining Co-Products](#), on page 6-2.

### **Step 14: Perform Cost Rollup and Cost Update for Assemblies**

Oracle Shop Floor Management provides operation yield costing that enables you to include operation yields in the cost rollup of an assembly. This step updates those calculations into the cost of your products. See: [Bills and Cost Rollups](#), *Oracle Cost Management User's Guide*.

## Defining Parameters

The Oracle Shop Floor Management parameters define operation movement and default values for the transactions you are creating.

### ►► To define the Shop Floor Management parameters:

1. Navigate to the Shop Floor Management Parameters window.
2. In the Lot Based Jobs region, set the value you want to use when lots are created and completed.
  - In the New Lot Separator field, the default value is a dash character (-) and can be changed to any value. When lots are created, split, or renamed—the resulting lot designation is the original lot number, followed by this value, followed by sequential numbering. See: [WIP Lot Transactions](#), on page 4-17, [Inventory Lot Transactions](#), on page 4-22.

The screenshot shows the 'Shop Floor Management Parameters (WSM)' window. It is organized into three main sections:

- Lot Based Jobs:**
  - New Lot Separator:
  - Job Completion Separator:
  - Default Accounting Class:
  - Undo Last Move:
  - Honor Kanban Size:
  - Co Products Supply Default:
- Accounts:**
  - Estimated Scrap Accounting:
  - Miscellaneous Transaction Account:
- Transactions:**
  - Enable Inventory Lot Transactions:
  - Jump from Queue:

- In the Job Completion Separator field, the default value is a dash character (-) and can be changed to any value. When lots are completed the resulting lot designation is the original lot number, followed by this value, followed by the lot sector extension. See: [Create Lot Move Transactions](#), on page 4-10.

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**Note:** Do not use the same character value in both the job completion separator, and in a segment of the job name. This creates an error in the resulting lot name.

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After you save your work, you can change these values if the jobs have not been completed.

- The Undo Last Move check box enables you to undo the last move transaction. This check box must be marked here for the functionality to be defaulted on the Move Transaction window. See: [Create Lot Move Transactions](#), on page 4-10.
- Honor Kanban Size parameter is used to determine whether to create a lot based job quantity equal to kanban size when components are pushed from an inventory lot during kanban replenishment. If this check box is not checked, lot based jobs are created for the maximum number of assemblies which can be built using the selected component lot. If the check box is checked, the system will honor the kanban lot size.
- In the Co Products Supply Default field, the default value is unchecked and can be changed to checked. If the check box is marked then planning will take into consideration supply for the co-products.
- In the Default Accounting Class field, enter the accounting class to used as the default accounting class in the Lot Based Jobs window. If no other rules, like getting the accounting class based on the item or subinventory association, return an accounting class then this default accounting class will be used.
- 3. In the Accounts region, enter defaults for estimated scrap and miscellaneous transactions.
- The Estimated Scrap Accounting field is used disable scrap and operation yield calculations, the default value is Enabled:

*Enabled:* Operation yield accounting and estimated scrap absorption are calculated when creating transactions for lot based jobs. The scrap account field is required when defining a department on the Departments window.

*Disabled:* Operation yield accounting and estimated scrap absorption are not calculated. The scrap account is not a required field on the Departments window; you can enter an account number at the time of the scrap transaction.

- In the Miscellaneous Transactions Account field enter the account to be used when issuing or receiving material.
- 4. In the Transaction region, set the value you want to use when the transactions are complete.
- If you do not have Oracle Warehouse Management installed, check the Enable Inventory Lot Transactions check box. This flag indicates that the Oracle Shop Floor Management Inventory Lot Transactions API is used for importing transactions into Oracle Applications.
- If Oracle Warehouse Management is installed, Oracle Shop Floor Management, Warehouse Management System users are encouraged to use WSM for doing these Inventory Lot Transactions. You may perform these transactions through the Warehouse Management System mobile (RF) user interface. Inventory Lot Transactions performed in Warehouse Management System is available for viewing in the Lot Genealogy window.
- The Jump from Queue field is used to specify if material, resources and overhead charges of an operation are to be charged when you jump from queue of the operation. The default value is Charge Operation.

*Ignore Operation:* Ignores the operation, therefore material resources and overhead charges at the From operation are not charged.

*Charge Operation:* Materials, resources and overhead is charged at the From Operation.

5. Save your work.

## Defining and Viewing Lot Sector Extensions

A different item number is associated with the lot for each stage on the shop floor. The relationship between the item numbers for these different stages is stored in a multi-level bill of material. A lot sector is a level of the bill that converts Inventory lot components into a lot based job. When the job is completed it becomes an Inventory lot for the next lot sector.

The profile option WSM: Complete Job Sector Lot Extension Level defines the extension appended to the lot sector. See: [Profile Option](#), on page 2-17.

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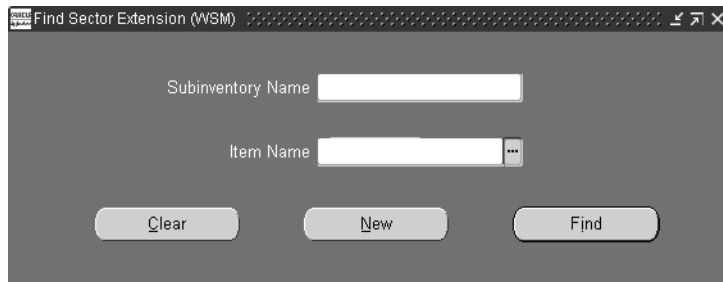
**Note:** The profile option WSM: Complete Job Sector Lot Extension Level defines the extension appended to the lot sector. See: [Profile Option](#), on page 2-17.

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**►► To define and view the Lot sector extension codes:**

1. Navigate to the Sector Extensions and Item/Subinventory Association window. The Find Sector Extension window displays. You can query lot sector extensions by subinventory name, item name, or both.



2. If you are searching for an existing lot sector extension, enter search criteria and choose Find. Choose New to create a new record. The Sector Extension and Item/Subinventory window displays.

3. Enter a unique value in the Sector Extension Code field, and a description.

Item	Description
WSM-EndProd	End Product for WSM
WSM-FG	Finished Good
WSM_ITEM_D	WSM_ITEM_D
DEMO-WSM-FG1	Demo WSM Finished Good
WSM_ITEM_E	Test BDM for WSM
AS.ASS-C1	Assembly from AS.ASS-B1

4. Select an accounting class from the Accounting Class Code list of values window.
5. In the Item tab, select the item numbers to assign to this lot sector.
6. In the Subinventory tab, select the subinventory location associated with this sector extension. See: [Assigning Items to a Subinventory](#), *Oracle Inventory User's Guide*.
7. Save your work.

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**Note:** Subinventories are valid stocking points when they are associated with sector extension codes. An item or subinventory is associated with only one sector extension.

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## Defining Standard Operation Details

Operation code information for standard operations is defined on the Standard Operation Details window. This window sets the intraoperation steps that are mandatory and subinventory location used as the stocking point.

### ►► To define standard operation details:

1. Navigate to the Standard Operation Details window.
2. Select an operation code in the Standard Operation field.

3. In the Mandatory Intraoperation Steps region, check the steps that you want as mandatory within an operation. See: [Intraoperation Steps, Oracle Work in Process User's Guide](#).
4. In the Stocking Point region—Subinventory field, select the default location that completed material from this operation is to be placed.  
If this subinventory is locator controlled, the Stock Locator field is enabled.
5. Save your work.

## Attaching Files to Job Operations

You can attach explanatory files —such as text, images, spreadsheets and video files— to lot based job operations. You define the attachment to the operation in the Standard Operations window, and it is linked to the routing when created in the Routing Network window. You can delete and add new files as required.

When a job is created in the Lot Based Job window, the attachment of the first and last operation is automatically copied from the network routing. Attachments are

also copied from the network routing during lot move transactions, splitting lots, and updating routings or assemblies. If you are performing an operation jump in a network routing, attachments are copied from the operation as defined in the Standard Operations window.

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**Note:** Up until Patchset H, the first and last operation is copied into the job. Going on forward only the first operation is copied into Lot Based Job.

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### See Also

[About Attachments](#), *Oracle Applications User's Guide*

[Attaching Files to Jobs, Schedule, and Operations](#), *Oracle Work in Process User's Guide*

## Profile Options

During your implementation, you set a value for the profile option used in Oracle Shop Floor Management to specify how the application controls access and processes data.

Generally, your system administrator sets up and updates profile option values. The *Oracle Applications System Administration User's Guide* contains more information on profile options.

The table 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.

The table displays the recommended settings for these profile options.

Profile Option	User	System Admin. User	System Admin. Resp.	System Admin. App.	System Admin. Site	Required	Default Value
WSM: Allow Operation Jumps	View Only	Yes	Yes	Yes	Yes	Optional	Yes
WSM: Complete Job Sector Lot Extension Level	View Only	View Only	View Only	View Only	Yes	Optional	
WSM: Maximum Number of Import Lot Job Workers	View Only	View Only	View Only	View Only	Yes	Optional	10
WSM: Maximum Number of Rows Processed By a Lot Based Job Worker as a Batch	Yes	Yes	Yes	Yes	Yes	Optional	1000
TP: WSM Delete successfully processed move transactions	No	No	No	No	No	Optional	No

**WSM: Allow Operation Jumps**

Controls whether operation jumps can be performed in the Move Transactions window. User Values are:

- *Yes*: Enables you to skip operations or jump to any standard operation defined in the network routing
- *No*: You are not allowed to skip operations or jump other operations in the network routing

**WSM: Complete Job Sector Lot Extension Level**

Controls whether to use the Item level or Subinventory level sector extension when a job is completed. See: [Defining and Viewing Lot Sector Extensions](#), on page 2-13. User Values are Item or Subinventory:

- If a sector lot extension is defined at both Item and Subinventory level, and this profile is set to Subinventory, the job appends the sector lot extension from the subinventory.

- If the profile is set to Item or is not defined, the job appends the sector lot extension from the item level.

**WSM: Maximum Number of Import Lot Job Workers**

Controls the maximum number of workers that can be launched in parallel to process the Lot Based Job Import records.

**WSM: Maximum Number of Rows Processed by a Lot Based Job Worker as a Batch**

Controls the maximum number of rows in the Lot Based Job Import interface that can be processed as a batch by each worker launched to import lot based jobs.

**WSM: Delete successfully processed move transactions**

Controls whether the Move processor deletes the successfully processed lot move interface rows. User Values are:

- *Yes*: Moved processor deletes successfully processed lot move interface rows
- *No*: The successfully processed rows are not deleted



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## Network Routings

This chapter describes network routings used in Oracle Shop Floor Manufacturing including the following topics:

- Overview of Network Routings on page 3-2
- Creating a Network Routing on page 3-4
- Modifying Network Routings on page 3-11
- Defining Operation Yield Values on Routings on page 3-13
- Integration with Advanced Supply Chain Planning on page 3-15
- Integration with Outside Processing on page 3-17

## Overview of Network Routings

Network routings, in Oracle Shop Floor Management, comprise all possible operations defined for manufacturing a particular assembly. While discrete jobs use standard routings, lot based jobs use network routings. The primary feature of network routings is, based on the results of an operation, to define different paths for the next operation. However, there must be a unique start and last operation defined in the network. When this information is captured, a network of operations is available for processing a lot based job on the shop floor.

You define two major aspects to create this functionality. First, all the possible allowable operations are defined in the Oracle Shop Floor Management Routings window as shown in the following illustration. Operation yield information for costing updates is also defined in the Operation Yield tab of this window.

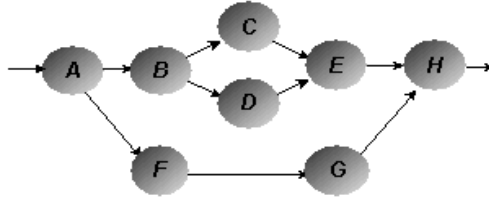
Seq	Code		Effectivity Date	Effectivity Time	Disable Date	Disable Time
10	VB20	<input checked="" type="checkbox"/>	17-MAR-2003	13:16:22	28-MAR-2003	11:36:44
20	0SP	<input checked="" type="checkbox"/>	11-MAR-2003	13:57:02		
30	VB20	<input checked="" type="checkbox"/>	11-MAR-2003	13:57:12		
40	VB30	<input checked="" type="checkbox"/>	11-MAR-2003	13:57:20		
50	VB40	<input checked="" type="checkbox"/>	11-MAR-2003	13:57:29		

Next, the network operations are defined in the Routing Network window. Here the primary and alternate paths are outlined, and the percentage each is likely to be used. This percentage is used by Advanced Supply Chain Planning.

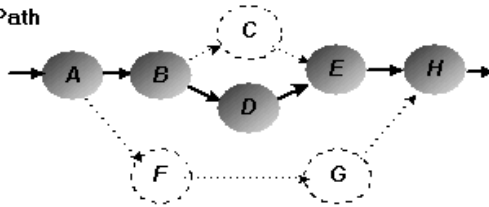
The combination of definitions provides for dynamic, flexible operation of a job. There are numerous possibilities in executing a routing and any one of these can be based on the outcome of the last operation performed. However, there must be a unique starting operation and a unique ending operation in the entire network.

As seen in this illustration, the first example shows the Network—that is, the entire network of the routing and all operations that the WIP Lot can use.

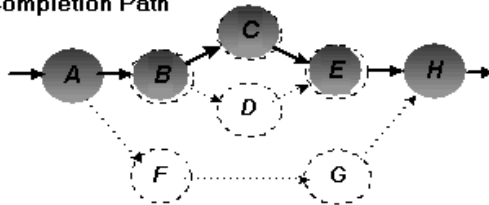
**Network Relationships**



**Primary Path**



**Actual Completion Path**



The next example—Primary Path—shows the main path that a job is most likely to follow.

And the third example—Actual Completion Path—shows the real route a particular job moved. This path could be the primary path or any of the other valid paths defined in the network. In the illustration, the job deviates from the primary path after operation B, and moves to operation C instead of D.

Once a complete network routing is defined for a sector, a WIP Lot begins with a routing comprising only of the first and the last steps. As the job completes the first step, you select the next operation in the network. The process continues until the job reaches the last step when the job is completed.

## Creating a Network Routing

The network routing defines different paths for the next operation. Oracle Shop Floor Management enables you to use both standard and non-standard operations in network routings, and supports repeating operations—standard and non-standard.

### ►► To create a network routing:

1. Navigate to the Routings window in the Oracle Shop Floor Management menu and enter information to define this item's routing.

This includes item number, alternate routing designator, revision, operation sequence, operation code, department, effective date, effective time, disabled date and disabled time. See: [Creating a Routing](#), *Oracle Bills of Material User's Guide*

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**Note:** When jobs are moved through network routing or WIP lot transactions are performed, Oracle Shop Floor Management considers an operation effective if the job's routing revision is greater than or equal to the operations effective date and less than or equal to its disable date if defined. In addition, a component is considered as effective if its effective date is less than or equal to the job's BOM revision date.

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The operation sequence numbers entered for each operation in this window do not signify the order of the particular operation in Oracle Shop Floor Management. The actual operation sequencing is built as you choose the operations based on the network path.

Routing (VBO)

Item **VB60001** **Processed Wafer** UOM **Ea**  
 Alternate   Capable To Promise

Revision **A** Date **28-MAR-2003** [ ]  
 Display **Future and Current**  Implemented Only

**Operations**

Main | Date Effectivity | WIP | Operation Yield | ECO | Description

Seq	Code	Effectivity Date	Effectivity Time	Disable Date	Disable Time
10	VB20	17-MAR-2003	13:16:22	28-MAR-2003	11:39:22
20	0SP	11-MAR-2003	13:57:02		
30	VB20	11-MAR-2003	13:57:12		
40	VB30	11-MAR-2003	13:57:20		
50	VB40	11-MAR-2003	13:57:29		

Routing Details | Routing Network | Operation Resources

2. Choose Routing Details to enter completion subinventory and locator information, or to view a common routing.

The completion subinventory defaults from the stocking point of the last operation. See: [Assigning a Completion Subinventory and Locator](#), *Oracle Bills of Material User's Guide*.

3. Save your work.
4. Choose Routing Network.

The Routing Network window displays the assembly item number and alternate number.

---

**Attention:** If you do not save your record on the Routings window, you will not be able to enter data on the Routing Network window.

---

Routing Network (M4)

Item: **CM51000**    100 MM Processed Wafer

Alternate: **ALTERNATE1**

From Seq	Code	From Op Description	From Dept	To Seq	Code	To Op Description	To Dept	Primary or Alternate Path	Planning %
10	PB10	Load Probe Machine	Probe	20	PB20	Probe Machine	Probe	PRIMARY	90
10	PB10	Load Probe Machine	Probe	80	DG01	DG osp op 1	dg_osp_d1	ALTERNATE	10
20	PB20	Probe Machine	Probe	30	PB30	Unload Probe Machi	Probe	PRIMARY	100
30	PB30	Unload Probe Machin	Probe	40	PB40	Review Probe Result	Probe	PRIMARY	100
40	PB40	Review Probe Results	Probe	50	PB45	Re-Probe	Probe	ALTERNATE	20
40	PB40	Review Probe Results	Probe	60	PB50	Disposition Probe	Probe	PRIMARY	80
50	PB45	Re-Probe	Probe	70			Probe	ALTERNATE	100
70			Probe	60	PB50	Disposition Probe	Probe	ALTERNATE	100
80	DG01	DG osp op 1	dg_osp_d1	60	PB50	Disposition Probe	Probe	ALTERNATE	100

5. Select or enter operation sequence information.

For standard operations, select the operation sequence code in the From Sequence field—operation code, description, and department automatically display.

For non-standard operations, enter the operation sequence code in the From Sequence field—the department automatically displays.

6. Select the operation sequence code in the To Sequence field—operation code, description, and department automatically display.

7. Select either primary or alternate path for this operation.

Primary indicates that this is a routing path used most often, while alternate indicates that it is used as a backup. This window validates that the primary path is a complete chain of operations from start to end.

You can have only one unique primary path. Loops are not permitted in the primary path but are in the alternate paths.

8. In the Planning % field, enter the percentage that this path is used.

Percentages for all the paths—originating from any node in the routing network, or ending on any node—must total 100 percent.

9. Repeat Steps 5 through 7 for all the operations in the routing network.

Only one first operation and one last operation are allowed in the routing network.

10. Save your work.

**►►To define an operation effectivity:**

1. Navigate to the Routings window.
2. Enter information to define this item routing.
3. Select the Date Effectivity tabbed region.
4. For the first operation sequence, select a Disable Date and Disable Time

---



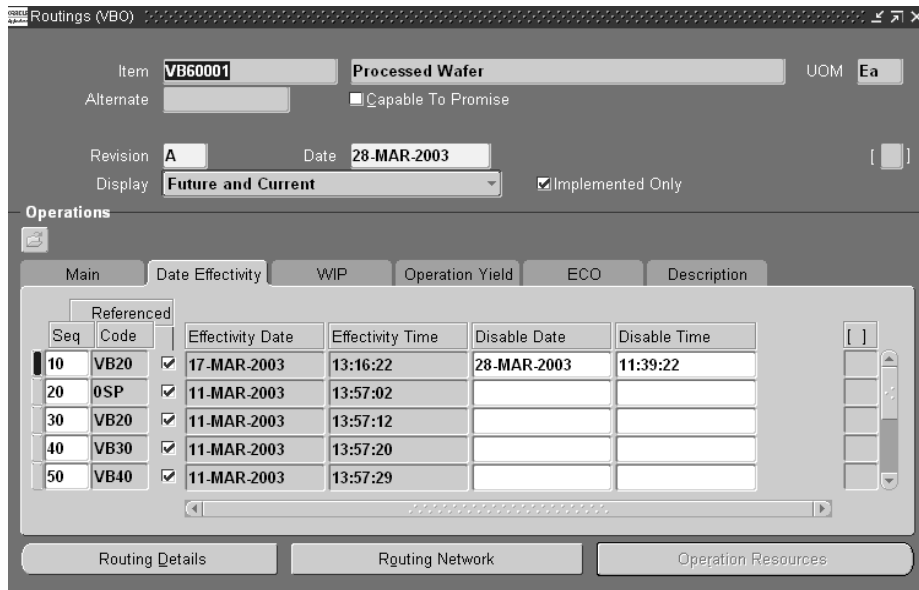
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**Note:** The effectivity of an operation in a routing is determined by the job routing revision date, rather than the transaction date.

---

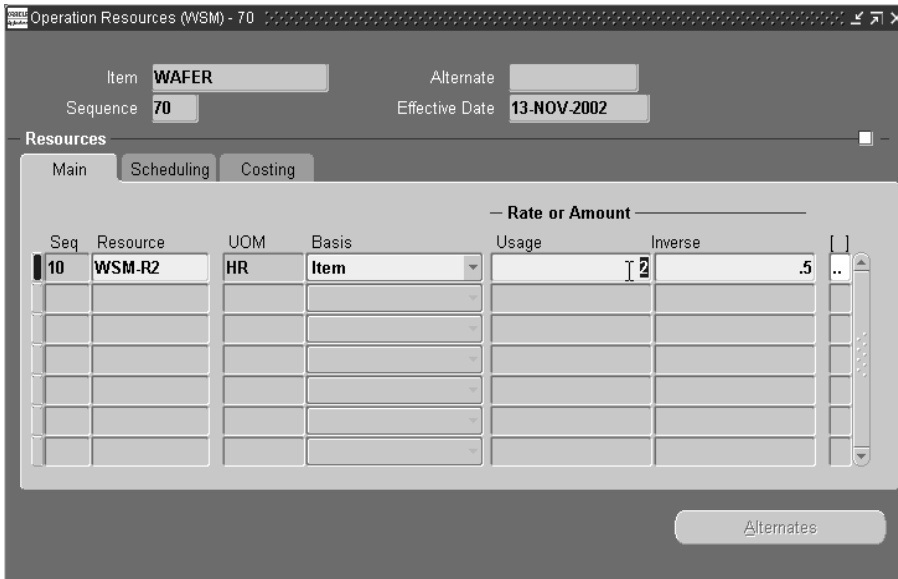


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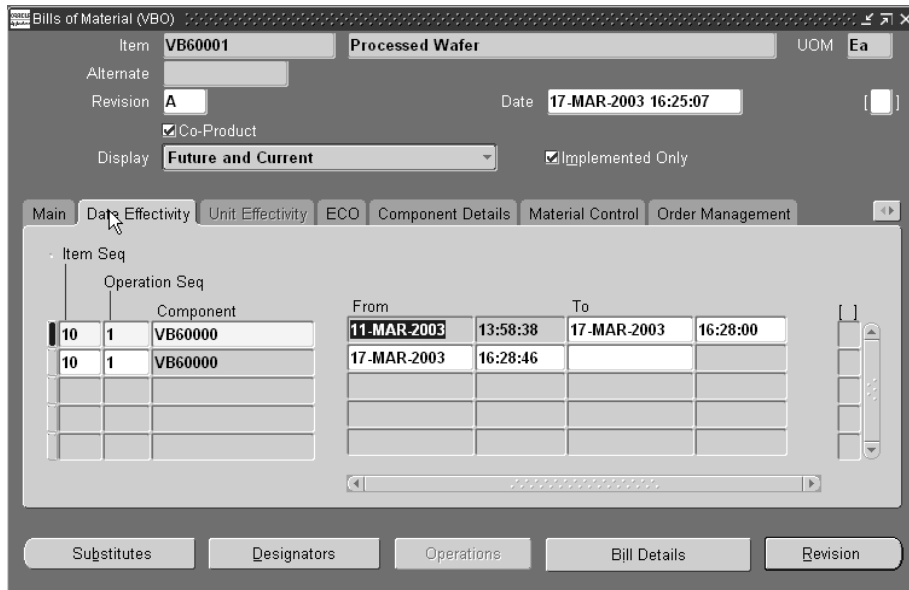


5. Save the change before enabling the new operation.

6. Enter the Effective Date for the new operation.
7. Save your work.
8. Choose Operation Resource to view the details on resource and resource usage at this operation.



9. Navigate to the Bills of Material window.
10. Select values in the From and To Effectivity Date fields for the first component.
11. Select values in the From and To Effectivity Date fields for your new component.
12. Save your work.



**13. Navigate to Lot Based Jobs window.**

Operation Effectivity and the Component Effectivity defined earlier can be seen when you create a lot based job using the revision date for the routing or Bill of Material.

If the system date is greater than the job start date, then the system date is used for the routing revision date and the BOM revision date

You can change this system default date to any date to implement the operation or component effectivity. See: [Operation](#), *Oracle Bills of Material User's Guide*.

Lot Based Jobs (VBO)

Job: 37573      Type: Standard

Assembly: VB60001      Processed Wafer

Class: STDLBJ      UOM: Ea

Status: Released       Firm

**Quantities**

Start: 11

MRP Net: 11

**Dates**

Start: 13-MAR-2003 10:21:00

Completion: 13-MAR-2003 10:21:00

Bill    Routing    Job History    Schedule Group, Project    Planning, Scheduling    More

Reference: \_\_\_\_\_

Alternate: \_\_\_\_\_

Revision: A      Revision Date: 13-MAR-2003 10:21:00

Supply Type: Based on Bill

Operations    Components

**14.** Save your work.

---

**Attention:** Lot based jobs explode the material and resource requirement for the first operation only. At the time of job creation, the BOM revision and routing revision is copied into the job and the material.

---

## Modifying Network Routings

You can modify network routings in several different ways:

### ►► To add or modify a network routing:

1. Navigate to the Routings window in the Oracle Shop Floor Management menu.
2. If you are adding a new operation, enter this operation in the Main tab of the Routings window.
3. Save your work.
4. Choose Routing Network.

The Routing Network window displays with the assembly item number and network.

5. Modify networks per your new requirements. Paths that are not required can be deleted— with the exception of the first or last operation of a network routing.
6. Save your work.

### ►► To delete a network routing paths:

1. Navigate to the Routing Network window.
2. Select the routing path you want to delete, and choose delete from the Edit menu.

Delete Standard operations from a routing in the Standard Operations window, see: [Operations](#), *Oracle Bills of Material User's Guide*.

3. Save your work.

---

---

**Attention:** You are not allowed to delete the first or last operation of a network routing.

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### ►► To import operations in a network routing:

The Routing Open Interface program enables you to import routing information. Imported routing details include routing revision, operation, instruction, and resource information. See: [Importing Bills and Routings](#), *Oracle Bills of Material User's Guide*.

The Routing Open Interface program imports standard routings only, it does not import Oracle Shop Floor Management network routings.

**See Also**

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

[Routing Revisions](#), *Oracle Bills of Material User's Guide*

[Operations](#), *Oracle Bills of Material User's Guide*

[Creating a Routing](#), *Oracle Bills of Material User's Guide*

[Completion Subinventory and Locator](#), *Oracle Bills of Material User's Guide*

## Defining Operation Yield Values on Routings

### ►► To define yield values on a routing:

1. Navigate to the Routings window and enter the item number.

This includes item number, alternate item number, revision, display option, operation sequence, operation code, department, and date ranges, see: [Creating a Routing, Oracle Bills of Material User's Guide](#).

Seq	Code	Yield	CUM Yield	Reverse CUM Yield	Net Planning %	Include In Rollup
10	FB10	.9	.9	.4212	100	<input checked="" type="checkbox"/>
20	FB20	.8	.72	.48	80	<input checked="" type="checkbox"/>
30	FB25	.7	.63	.42	20	<input type="checkbox"/>
40	FB30	.6	.4212	.6	100	<input checked="" type="checkbox"/>

2. Choose the Operation Yield tab.

The values you entered for operation sequence and operation code number are displayed in this tab.

3. In the Yield field, enter a value for component yield for first operation.

This is the percent of the amount of a component required for an assembly plus the amount lost while building an assembly. For example, a yield factor of 0.90 means that only 90% of the usage quantity of the component on a bill actually becomes part of the finished assembly.

4. Check the Include in Rollup check box if you want the items, resources, and overhead in this operation to be included in the cost rollup. Otherwise leave the box unchecked.

The Include in Rollup check box defines if the operation is going to be included in the standard cost rollup. All operations, both primary and alternate, are defined on this form. You do not want all operations, both primary and alternate, to be included in the standard cost. When checking the box, make sure you want that operation to be included. If all operations are checked, including operations in the alternate paths, this would lead to an exaggerated standard cost and could create large variances.

Ideally, you should check the Include in Rollup flag for all operations on the primary path.

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**Note:** Oracle Shop Floor Management only uses the standard costing method.

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5. Check the Operation Yield Enabled check box if you want this operation's yield to be calculated, otherwise leave the box unchecked.
6. Repeat steps 3 through 7 for all the operations in the routing.
7. Save your work.

**▶▶To calculate cumulative yield and reverse cumulative yield:**

1. Navigate to the Routings window and enter the item number.
2. Choose the Operation Yield tab.
3. Select Calculate Operation Yields from the Tools menu.

This will calculate cumulative yield and reverse cumulative yield for the routing. When the calculations are computed, a note will appear letting you know the process is complete. Choose OK in the Note window. The CUM Yield, Reverse CUM Yield, and Net Planning % fields are then populated.

4. Save your work.

## Integration with Advanced Supply Chain Planning

Network Routings are captured in a snapshot and used to calculate and plan resource requirements for existing lot based jobs and planned orders. This is accomplished using one the following methods:

- The primary path
- Cumulative percentages
- Deriving the percentages based on resource availability

With the primary path method, orders are scheduled on the primary path. The cumulative percentages method takes advantage of the pre-calculated accumulated percentages from various paths on the network routing to guide scheduling. The third method, derives percentages based on resource availability, analyzes the current conditions on the shop floor and intelligently chooses alternate paths and determines the quantity which needs to be processed on each path.

The reverse cumulative yields specified at the operation sequence level are captured in a snapshot by Advanced Supply Chain Planning and used to derive the component requirements. Advanced Supply Chain Planning loads resources using the inflated quantities derived from reverse cumulative yields at different operation sequences.

### See Also

[Oracle Advanced Supply Chain Planning](#), *Oracle Advanced Supply Chain Planning*, *Oracle Risk Optimization*, and *Oracle Global Order Promising User's Guide*

[Constraint Types](#), *Oracle Advanced Supply Chain Planning*, *Oracle Risk Optimization*, and *Oracle Global Order Promising User's Guide*

[Items](#), *Oracle Advanced Supply Chain Planning*, *Oracle Risk Optimization*, and *Oracle Global Order Promising User's Guide*

[Manufacturing Resources](#), *Oracle Advanced Supply Chain Planning*, *Oracle Risk Optimization*, and *Oracle Global Order Promising User's Guide*

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**See Also**

[Oracle Advanced Supply Chain Planning](#), *Oracle Advanced Supply Chain Planning*, *Oracle Risk Optimization*, and *Oracle Global Order Promising User's Guide*

[Constraint Types](#), *Oracle Advanced Supply Chain Planning*, *Oracle Risk Optimization*, and *Oracle Global Order Promising User's Guide*

[Items](#), *Oracle Advanced Supply Chain Planning*, *Oracle Risk Optimization*, and *Oracle Global Order Promising User's Guide*

[Manufacturing Resources](#), *Oracle Advanced Supply Chain Planning*, *Oracle Risk Optimization*, and *Oracle Global Order Promising User's Guide*

## Integration with Outside Processing

Outside Processing enables you to include supplier-sourced components and resources in the manufacturing process. Key features of outside processing for lot based jobs include the following:

### Setup

Setup is needed for Inventory, Bills of Material/Cost Management, Purchasing and Work in Process .See: [Outside Processing](#), *Oracle Work in Process User's Guide*

- **Requisition Creation Time:** To enable outside processing (OSP), you need to set requisition creation time in the WIP parameters window. In WIP discrete jobs, the At Job/Schedule Release setting creates purchase requisitions for all OSP operations in the routing, while At Operation setting creates purchase requisitions only when a job reaches the queue of an OSP operation. But in Shop Floor Management, you do not know the next operation a priori (i.e. due to network routing and jump transactions), hence purchase requisitions are only created at the queue of an outside processing operation. To support this, At Job/Schedule Release and At Operation behave identically for Shop Floor Management. Note: For Manual setting, all purchase requisitions must be created manually. See: [Outside Processing](#), *Oracle Work in Process User's Guide*.
- **OSP Resource, Department, Item:** An OSP operation requires one or more OSP resources, which in turn must be associated with departments with location. In addition, a separate OSP item must be created to receive and charge the outside work (this item is associated with the resource). When creating the OSP item, the Purchasing Tabs of the Item window must have OSP-related settings, i.e. Purchased, Purchasable, Outside Processing Item must be checked. The list price must be specified in the purchasing master organization for generating purchase orders. See: [Outside Processing](#), *Oracle Work in Process User's Guide*
- **Routing:** To associate an OSP resource with a routing (either directly or using standard operations), you must specify a charge type (either at the resource, the standard operation or the routing level). For Shop Floor Management, charge type PO Receipt should be used for OSP operations. PO Move, which moves any received quantity to the queue of the next operation in WIP discrete jobs, is de-supported (i.e. error message is appear in jobs with this setting). This is because in lot based jobs, the next operation is not predetermined and moreover partial receipts should not be moved till the entire quantity is received. See: [Outside Processing](#), *Oracle Work in Process User's Guide*.

## Outside Processing Scenarios

Automatic creation of purchase requisitions generally occurs when a job moves forward to or starts at the queue of an OSP operation (there are exceptions, such as Undo back to an OSP operation queue).

You should expect a warning message at the queue of an OSP operation when performing a transaction that would invalidate one or more purchase requisitions. You should manually cancel or update purchase requisitions for such transactions. Note that these warning messages appear even for purchase requisitions that have not yet been completely processed by the purchasing transaction manager (i.e. are still in purchase requisition interface tables) as well as for purchase orders.

As discussed in routings setup, charge type PO Move is de-supported. You are allowed to create operations in a routing with charge type PO Move, but are not able to start at or move to PO Move OSP operations.

## Job Creation/Update

- **Lot Based Job Creation/Lot Creation:** Starting a job at an OSP results in automatic purchase requisition creation. For the define Lot Based Job and Lot Creation windows, the starting operation, which is always the first operation of the routing, would need to have an OSP resources for this to occur. Creating a lot based job to start at a PO Move OSP operation gives an error and not allow the transaction to be saved (applies for both released and unreleased status).
- **Lot Based Job Update:** Creating a job as unreleased status will not result in purchase requisition creation, but upon changing the status to released, a purchase requisition is created if the starting operation is OSP. Increasing job quantity through the Lot Based Job window at an OSP operation causes a new purchase requisition to be created for the additional quantity. Changing job status from released to unreleased where the first operation is OSP would mean that a purchase requisition should no longer exist and will result in warning.

## WIP Lot Transactions

- **Split/Merge:** Performing WIP lot transactions that have new resulting jobs, such as split or merge, would mean that purchase requisitions or purchase orders for the starting jobs would need to be cancelled manually. Note that instead of canceling all purchase requisitions or purchase orders for starting jobs and creating new purchase requisitions for resulting jobs, you can keep existing purchase requisitions or purchase orders by updating their distribution. Also note if a purchase requisition, purchase order is kept because a starting job

retained quantity and became a resulting job, then the quantity listed on that purchase requisition or purchase order would need to be updated manually.

- **Update Routing/Assembly:** Updating the routing or assembly for a job to start at an OSP results in purchase requisition creation. If you are leaving the queue of an OSP operation, this would imply a purchase requisition is being abandoned in the old routing and would need to be manually cancelled. Attempting to update routing or assembly to start at a PO Move OSP operation will result in an error message and will not save.
- **Update Quantity:** Increasing job quantity through the WIP Lot Transactions window at an OSP operation causes a new purchase requisition to be created for the additional quantity.
- **Bonus:** For a bonus WIP lot transaction, we can start at any operation queue and expect automatic creation of a purchase requisition if an OSP resource is present. Starting a bonus job at any operation which has a resource of charge type PO Move result in an error.

### Move Transactions

- **Move:** Moving a job to the queue of any OSP operation results in the automatic creation of purchase requisitions. Moving to a PO Move OSP operation results in an error. You can move from an OSP operation without formally receiving the OSP item.
- **Jump:** Jumping to the queue of an OSP operation, both inside and outside the routing, results in the creation of a purchase requisition. A jump from an OSP operation queue (with Charge Jump From Queue set to OFF) results in a warning to manually cancel purchase requisitions. Jumping to a PO Move OSP operation results in an error.
- **Undo:** Performing an undo back to an OSP operation queue does not result in purchase requisition creation. An undo at an OSP operation result in a warning, since a purchase requisition may be abandoned.

### Defining Network Routings

A warning is given if an outside processing resource of charge type PO Move is associated with an operation in the Network Routing window.



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## Lot Transactions

This chapter provides information about lot functionality in Oracle Shop Floor Management. The following topics included are:

- Overview of Lot Transactions on page 4-2
- Creating a Lot Based Job on page 4-3
- Overview of Lot Moves on page 4-10
- Creating Lot Move Transactions on page 4-10
- Operation Jumps on page 4-13
- Viewing Status and Resources on page 4-15
- Overview of Lot Splitting and Merging on page 4-15
- WIP Lot Transactions on page 4-16
- Creating WIP Lot Transactions on page 4-17
- Inventory Lot Transactions on page 4-21
- Creating Inventory Lot Transactions on page 4-22
- Creating Lots for New Sectors on page 4-25
- Kanban Replenishment on Lot Based Jobs on page 4-27

## Overview of Lot Transactions

Oracle Shop Floor Management uses WIP lots and Inventory lots to create transactions. WIP lot transactions enable you to perform various work in process transactions during the production cycle, such as lot split, merge, part number change, and bonus (creating a new lot that is entirely new or from scrap).

The process flow of a lot begins when a WIP lot based job is created for the first sector's primary assembly. The WIP lot is created and released, moves through a series of operations, and is completed into an inventory location, where it is an Inventory lot. Upon completion, the WIP lot has the appended sector extension code is assigned to the corresponding item subinventory. In this manner you can continue to use the same job name or lot name throughout the production process where the part number changes with each sector. In terms of the bill of material, the part being completed in a sector becomes the primary component of the part being made in the next sector.

The Inventory lot then moves into the next sector. This move consists of creating a new WIP Lot for the primary assembly of the next bill level (the next sector), and issuing the primary assembly from the previous sector to this new WIP lot. After WIP lot creation and issue of the primary component, the job moves through a series of operations, and is completed into inventory location. This process is repeated through each sector until the last sector is complete.

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**Note:** Lot based jobs are not considered in the Oracle Master Scheduling/MRP, Oracle Supply Chain Planning, Oracle Order Management, or Oracle Project Management applications.

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## Creating a Lot Based Job

After you have completed set up steps for defining your item numbers, assemblies, bills of material, and network routings—the next step is to create a lot based job for the first sector. The Lot Based Jobs window is used to define lots for the first sector of the manufacturing process and links them to assemblies on the shop floor. The lots for the other sectors are created using the Lot Creation window, see: [Creating Lots for New Sectors](#), on page 4-25.

Lot based jobs can not be created for serial number controlled assemblies. This restriction applies to the jobs created using forms and interface.

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**Note:** Lot based jobs support operation pull, push, and phantom supply types, other supply types are not currently supported.

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### Non-standard Lot Based Jobs

You can create non-standard lot based jobs. Standard jobs control the material, resources, and operations required to build an assembly and collect costs. Non-standard jobs control material and collect costs for miscellaneous activity. These jobs can be used on expense work orders for testing, prototypes, and rework where operation yield costing is not considered. You can perform all transactions on a non-standard lot based job like moves, scraps, jumps, undos, completions, returns, material transactions; all WIP lot transactions like bonus, split, merge, update routing, update assembly, update quantity and update lot name. Non-standard lot based jobs use WIP accounting class type *Expense Non-standard Lot Based*. See: [WIP Accounting Classes](#), *Oracle Work in Process User's Guide*.

For non-standard jobs, you can choose whether to specify a subinventory or not. Thus subinventory is defaulted during job creation. If a subinventory is specified, you can complete the job into an inventory lot.

You can perform the update of bom and routing reference id's provided the job in unreleased. To update any reference id, you have to provide the reference id, revision date and the alternate designator.

### See Also

[Overview of Setting Up, Oracle Inventory User's Guide](#)

[Overview of Setting Up, Oracle Bills of Material User's Guide](#)

[Creating a Network Routing](#), on page 3-4

[Closing Lot Based Jobs](#), on page 8-2.

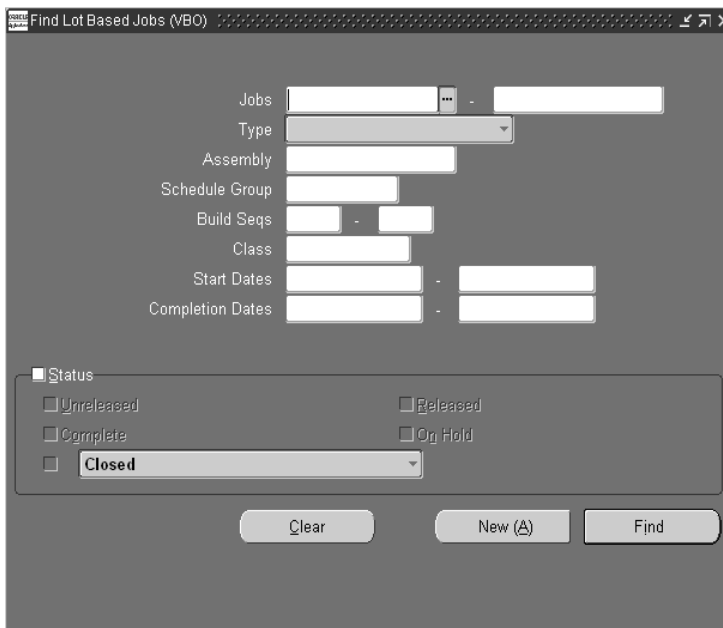
**▶▶ To find lot based jobs:**

1. Navigate to the Lot Based Jobs window.

The Find Lot Based Jobs window displays.

2. Enter your search criteria.

You can query by job name, assembly, accounting class, a range of start dates, a range of completion dates, or job status. You can combine or omit criteria as required.



3. Choose Find to display the Lot Based Jobs Summary window.
4. Select a lot based job and choose one of the following actions.
  - View Genealogy to view historical informations in the Lot Genealogy window, see: [Displaying Genealogy and Where used Views](#), on page 5-3.
  - The Operations window is used to view the resource requirement for the lot based job.

- The lot based job provides the resource details for the first operation during job creation and the resource requirement for the other operations are shown whenever the job is moved to this operation.
- Components to access the Material Requirements window displaying all the components for this job
- Open to display the details of this job in the Lot Based Jobs window.

Job	Type	Assembly	Unit Number	Class
37275-WAF	Standard	VB60001		STDLBJ
37573	Standard	VB60001		STDLBJ
38153_VB	Standard	VB60001		STDLBJ
38273	Standard	VB60001		STDLBJ
38274	Standard	VB60001		STDLBJ
39167	Standard	VB62000		STDLBJ
39620	Standard	Custom Desing Die for		STDLBJ
39622	Standard	Die		STDLBJ
B_OSP_OP	Standard	VB60001		STDLBJ
JOB4	Standard	VB60001		STDLBJ

View Genealogy    Operations    Components    Open

5. If you are creating a new lot, Choose New (A).

### ▶▶▶ To create lot based jobs:

1. Navigate to the Lot Based Jobs window.  
The Find Lot Based Jobs window displays.
2. If you are creating a new lot, Choose New (A).  
The Lot Based Jobs window displays.
3. Enter the name of the job in the Job field.

Oracle Work in Process discrete jobs and Shop Floor Management lot based jobs must not use the same value for Job name. In the Job Type field, the value defaults to standard. Oracle Shop Floor Management only uses standard jobs.

As you proceed with the manufacturing process, the job name changes as lots are created, split, renamed, and completed. Keep in mind when creating lots that the name cannot exceed 30 characters. This includes the combination of sector extensions and lot separators appended to the resulting lot as it moves on the shop floor.

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**Note:** Do not use the same character value for both the job completion separator, and in a segment of the job name. When lots are completed the resulting lot designation is the original lot number, followed by the job separator value, followed by the lot sector extension. Using the same character value creates an error in the resulting lot name.

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4. Select the assembly in the Assembly field.

The screenshot shows the 'Lot Based Jobs (VBO)' form with the following fields and values:

- Job: 37573
- Assembly: VB60001
- Class: STDLBJ
- Status: Released
- Type: Standard
- UOM: Ea
- Firm:
- Quantities: Start 11, MRP Net 11
- Dates: Start 13-MAR-2003 10:21:00, Completion 13-MAR-2003 10:21:00
- Revision: A
- Revision Date: 13-MAR-2003 10:21:00
- Supply Type: Based on Bill

Buttons at the bottom include 'Operations' and 'Components'.

5. Select the job status in the Status field.  
When you define a job, its status defaults to Unreleased but can be changed to Release or On Hold.
6. The Firm check box is used to firm this job.  
Firming a job prevents planning suggestions for rescheduling, however—lot based jobs are not considered in the Oracle Master Scheduling/MRP and Oracle Supply Chain Planning. This field is not used by non-standard jobs.
7. In the Quantities region, enter the Job quantity of the job or lot in the Start field.  
When you enter a Job start quantity for the Lot Based job using bills and routings, the component material requirements and resource equipment for the First Operation will be exploded into this Job.  
You can change the quantity on jobs with out transactions.

8. In the MRP net field, the quantity is derived from the job start quantity.

Oracle Shop Floor Management does not integrate with Oracle Master Scheduling/MRP. This field supports Oracle Advanced Planning and Scheduling, applications.

9. In the Dates region, enter a value in either the Start or Completion field.

If you enter a start date, the completion date is forward scheduled. Similarly, if you enter a completion date, the start date is backward scheduled. Job start and end dates are calculated using the following formula:

$$\begin{aligned} & \text{fixed lead time (at the item level)} \\ + & \text{ variable lead time (at the item level)} \\ * & \text{ job quantity} \end{aligned}$$

---

---

**Note:** Lot based jobs create the material and resource requirement for the first operation only. The material and resource requirement is exploded whenever the job is moved to the corresponding operation, including the last operation. If you have a job with an operation 9999, you do not have to change it.

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10. Save your work.

**DD. To assign an alternate bill of material or revision:**

1. On the Bill tab in the Alternate field, select the alternate bill of material.

You can select an alternate bill of material if alternate have been defined. See: [Primary and Alternate Routings](#), *Oracle Bills of Material User's Guide*.

2. In the Revision field, select the bill of material revision.

3. Select the bill of material revision's date and time.

Bill revision and date determine which version of the bill, and therefore which components are on the bill of material.

4. In the Supply Type field, the value defaults to Operation Pull.

Lot based jobs support only operation pull, push, and phantom supply types.

5. Save your work.

**▶▶. To assign the appropriate routing if job has multiple routings:**

1. On the Routing tab, select the routing you want to use in the Routing field.  
Routings must be defined for this assembly, see: [Creating a Network Routing](#), on page 3-4.
2. In the Revision field, select the revision number of this routing.  
The date of the lot based job can be used to derive the routing revision.
3. In the Revision field, select the date and time if you want to update the values derived from the routing.
4. In the Subinventory field, the location (and locator, if existing) display for where this job completes.  
Subinventory fields default from the routing. They are not required for non-standard jobs—you can remove these values if this job will not be completed into inventory.
5. Save your work.

**▶▶. To schedule lot based jobs:**

- Enter or select either the Start and/or completion date and time. If you enter one date and time, the other date is calculated using the total lead time of the assembly.

**▶▶. To view component requirements:**

- Choose Components. The Material Requirements window displays showing all the components of this job.

## Lot Based Job Reporting

The following Oracle Work in Process reports support lot based job reporting:

[Discrete Job Data Report](#), *Oracle Work in Process User's Guide*

[Discrete Job Listing Report](#), *Oracle Work in Process User's Guide*

[Discrete Job Routing Sheet](#), *Oracle Work in Process User's Guide*

[WIP Accounting Classes Report](#), *Oracle Work in Process User's Guide*

[WIP Outside Processing Report](#), *Oracle Work in Process User's Guide*

[Discrete Job Shortage Report](#), *Oracle Work in Process User's Guide*

[Job lot Composition Report](#), *Oracle Work in Process User's Guide*

[Discrete Job Value Report](#), *Oracle Work in Process User's Guide*

[WIP Value Report](#), *Oracle Work in Process User's Guide*

## Overview of Lot Moves

Lot based jobs support network routing. The primary feature of network routings is, based on the results of an operation, you can define different paths for the next operation. Therefore, two distinct lot based jobs for a particular assembly with the same routing, could move through different manufacturing operations in that routing.

In comparison to the Move Transaction window for discrete jobs in Oracle Work in Process, the Move Lot Based Jobs window is more restrictive in the options when moving the lot through the routing. With the exception of scrap transactions, all move transactions are for the entire lot quantity. When a job is completed, the job name is automatically renamed using the lot sector extension, see: [Defining Lot Sector Extensions](#), on page 2-13.

Each shop floor move can generate a set of attributes associated with that move—for example—transaction reason codes, product attributes, actual yield, and cycle time. You are prompted to enter values for some attributes, others are defaulted.

## Creating Lot Move Transactions

Within a sector, you can move assemblies within an operation or from one operation to the next using the Move Lot Based Jobs window. This window is modeled after the Move Transactions window in Oracle Work in Process. See: [Move Transactions](#), *Oracle Work in Process User's Guide*.

### ►►. To create lot move transactions:

1. Navigate to the Move Lot Based Jobs window. See: [Performing Move Transactions](#), *Oracle Work in Process User's Guide*.

- In the Assembly or Job field, select either an item assembly number or lot job number.

Depending on which value you enter, the defaulting information for the corresponding field displays.

The screenshot shows the 'Move Lot Based Job (VBO)' window with the following fields and values:

- Assembly: VB60001
- Job: 37275~WAF
- Processed Wafer: [Empty]
- UOM: Ea
- Routing Revision: A
- Bill Revision: A

**Transaction Type**

- Move
- Complete
- Return
- Undo
- Jump

**Operations**

	Job Seq	Code	Department	Step
From	60	VB40	WAF	To move
To	40	VB30	WAF	To move

**Transaction**

- UOM: Ea
- Available: 11
- Quantity: 11
- Date: 28-MAR-2003 11:53:07

**Scrap Account**

- Alias: [Empty]
- Number: [Empty]
- Reason: [Empty]
- Reference: [Empty]

Manual Resources Exist

Buttons: Statuses, Resources, Save

- In the Transaction Type region, Move automatically displays.

Move transaction type indicates moving from one operation to another. Complete transaction type is active only when the job is moving to the last operation and last intraoperation step. See: [Move Transaction Types](#), *Oracle Work in Process User's Guide*.

Check the Undo Last Move check box if you want the option of cancelling the last move transaction. The Undo Last Move checkbox on the Shop Floor Parameter window must be checked to enable this functionality.

- In the Operations region, enter operation sequence values in the To row.

Values in the From row are defaulted based on the current status of the lot job. The information for Operation Code, Department Number, and Operation Step automatically displays, see: [Operations](#), *Oracle Bills of Material User's Guide*.

The To row permits moves only to those operations which are valid, based on network. However, you can jump to any operation not defined in the network routing. See: [Operation Jumps](#), on page 4-13.

5. In the Transaction region, you are allowed to change the quantity only for scrap transactions. Otherwise, the entire lot is moved together.
6. If you are moving material to scrap in this transaction, alias information automatically displays in the Scrap Account region.

The scrap account alias number is an easily recognized name or label representing an account charged on miscellaneous transactions. This is used for viewing, reporting, and reserving. The scrap account number automatically displays. See: [Defining Account Aliases](#), *Oracle Inventory User's Guide*.

7. Check the Manual Resources Exist check box if you want to be notified if resources exist for the completed operation they are assigned. See: [Charging Resources with Move Transactions](#), *Oracle Work in Process User's Guide*.
8. In the Reason field, select a transaction reason. See: [Defining Transaction Reasons](#), *Oracle Bills of Material User's Guide*.
9. In the Reference field, enter any descriptive information to identify transactions, used on standard reports.
10. Save your work.

## Operation Jumps

The operation jump functionality enables you to skip operations in a routing—or jump to any operation not defined in the network routing. To use this functionality, set the following parameters:

- Oracle Shop Floor Management profile option, Allow Operation Jumps is set to Yes. See: [Profile Options](#), on page 2-17
- Work in Process Parameters window, set the Move Transaction Parameter—Allow Creation of New Operations—to Yes
- Oracle Shop Floor Management Parameters window, set the parameter Jump From Queue according to your need. See: [Defining Parameters](#), on page 2-11.

### ▶▶. To perform an operation jump:

1. Navigate to the Move Lot Based Jobs window.
2. In the Assembly or Job field, select either an item assembly number or lot job number.

Depending on which value you enter, the defaulting information for the corresponding field displays.

- From the Transaction Type region, check the Jump check box.

The screenshot shows the 'Move Lot Based Job (VBO)' window with the following details:

- Assembly:** VB60001
- Job:** 37275-WAF
- UOM:** Ea
- Routing Revision:** A
- Bill Revision:** A
- Transaction Type:**
  - Move
  - Complete
  - Return
  - Undo
  - Jump
- Operations:**

	Job Seq	Code	Department	Step
From	60	VB40	WAF	To move
To	40	VB30	WAF	To move
- Transaction:**
  - UOM:** Ea
  - Available:** 11
  - Quantity:** 11
  - Date:** 28-MAR-2003 11:53:07
- Scrap Account:**
  - Alias:** [Empty]
  - Number:** [Empty]
  - Reason:** [Empty]
  - Reference:** [Empty]
- Manual Resources Exist:**
- Buttons:** Statures, Resources, Save

- In the To row, enter any operation sequence number which is greater than the From operation sequence number.
- Select an operation code and the step for the operation to which you want to jump.
- Create remaining transactions as described in [Creating Lot Move Transactions](#), on page 4-10.

After completing the jump operation, you can move to any of the operations defined in the original routing to complete the balance of operations.

- Save your work.

## Viewing Status and Resources

### ▶▶ To view shop floor statuses:

- ❑ Choose Statuses. See: [Assigning and Viewing Shop Floor Statuses](#), *Oracle Work in Process User's Guide*.

### ▶▶ To view shop floor resources:

- ❑ Choose Resources. See: [Charging Resources with Move Transactions](#), *Oracle Work in Process User's Guide*.

## Overview of Lot Splitting and Merging

Oracle Shop Floor Management provides the ability to split and merge lots. Lots exist at different production points as either WIP lots or Inventory lots. Two windows, one for the WIP lot and the other for Inventory lot, give you the ability to perform various work in process and inventory transactions so you can divide, combine, rename existing lots—or create new lots from scrapped material. These windows enable you to do the following actions:

- *Lot Splitting*: divide a lot into two or more resulting lots: split a released lot into two or more resulting lots that can have different resource, material requirements, and different operations.

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**Note:** WIP Lot transactions cannot be performed for outside processing operations. In instances where material is moved to the operation by outside processing—receive the material and move to the last intraoperation step or next operation before splitting the quantity.

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- *Lot Merging*: combine multiple lots of the same item into one resulting lot. The starting lots must all be for the same revision of the same item, the identical quality attributes values, and be at the same intraoperation step with the same department and resources.
- *Update Assembly*: change the item, quantity, or revision of an existing lot and move it to another assembly. The lot number is renamed in these transactions.
- *Bonus*: recover scrap quantities to create a new lot, or create an entirely new lot.

- *Subinventory Transfer*: move a lot from one subinventory/locator to another subinventory/ locator.

These transactions are created in the WIP Lot Transactions window, for WIP lots, or the Inventory Lot Transactions window for Inventory lots.

## WIP Lot Transactions

WIP Split/Merge functionality provides business solutions on the shop floor so you can do the following tasks:

*Lot Splitting*: You can divide a lot into any number of child lots. The parent lot can be at any operation in the routing and may have created material, resource and cost transactions. The split lots have a value proportional to the number of units being split away. Scrap and variance due to scrap are associated with the lot number in the scrap transaction. Child lots have their own routings and bills of material, and you can create transactions against different child lots immediately after a split. Backward movement for a split transaction is not allowed. The transaction processing for splits is not linked to the cost processing for splits, as transactions may be entered into the system via the interface at any time. When a lot is split into multiple children, the standard costs collected at the starting job are redistributed to the resulting jobs.

New lot numbers are automatically assigned to the child lots of a split transaction, but can be changed. New lots are independent entities linked by a transaction history associating their genealogy.

*Lot Merging*: Multiple lots with identical assemblies can be combined to create a single parent lot. Only lots at the same current intraoperation step are merged. The new job is now at the operation where the lots were merged.

*Lot Bonus*: You can increase the work order quantity, and credit a bonus account for the transaction. You can also simulate a recover transaction to start a lot on a given routing at a given step, and credit a bonus for the transaction.

*Update Assembly*: One product can be translated into another product—that is—change the item, quantity, revision, or routing of an existing lot and move it to another assembly. There are no costing implications in this transaction. You are also able to switch to an alternate routing on the same operation step.

If the translation is updating the routing, the WIP lot is updated with an alternate network routing defined for the assembly. When this type of translation is performed at the queue intraoperation step, the operation characteristics correspond to the same operation, if existing, in the new routing.

*Assigning Starting Operation for Child Lots:* A lot can be split into several child lots and processed on different routings, potentially creating other assemblies. Starting operation for the child lots is the same as the parent lot operation at the time of the split. For bonus lots, you can start a child lot at any operation sequence number on a given routing, otherwise it defaults to the queue step at the first operation. The operation history before the split is saved for all lots, used for scrap and standard cost update valuation.

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**Note:** WIP Lot transactions cannot be performed for outside processing operations.

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## Creating WIP Lot Transactions

### ► To enter WIP lot transactions:

1. Navigate to the WIP Lot Transactions window.
2. Select a transaction type.

Your choices are Bonus, Merge, Split, Update Assembly, Update Lot Name, Update Quantity, or Update Routing. See: [WIP Lot Transactions](#), on page 4-16.

The Status field automatically displays a status type of pending, until the transaction is completed.

Select the job type (standard or non standard) for the type of jobs the transaction is to be performed on. Note: WIP lot transactions cannot be performed across job types.

The Costed field is updated after costing program is executed.

3. In the Reference field, you can enter any descriptive information regarding this transaction.

4. Optionally, you can select the purpose of this transaction in the Reason field.
5. Follow the procedures for the transaction you want to create, Your choices are Bonus, Merge, Split, Update Assembly, Update Lot Name, Update Quantity, or Update Routing.

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**Note:** WIP Lot transactions cannot be performed for outside processing operations.

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**» To create WIP lot bonus transactions:**

1. Select the bonus transaction type.
2. In the Resulting Lot region, in the Job Information tab, enter the new lot number.
3. Enter a lot number, description, assembly number, quantity, and bonus account number.
4. In the Start Operation, Dates tab, the accounting class is defaulted but you can select another one from the list of values. You can start a bonus lot at any

operation on the primary path, however, the default is the queue step at the first operation.

5. Optionally, you can change the Start and Completion dates.
6. You can also enter routing and bill of material information in the Routing Information and the BOM and More tabs.
7. Save your work.

**► To create WIP lot merge transactions:**

1. Select the merge transaction type.
2. In the Starting Lot region, in the Lot Number field, select the lot numbers of the parent lots you want to merge.

The lot details display: assembly number, operation sequence number, intra-operation step, operation code, quantity remaining in the lot, alternate routing, and start date.

3. Check the Representative Lot check box for one lot in this group whose characteristics will represent the merged lot.

The attributes of the representative lot are used for the resulting merged lot.

4. In the Resulting Lot region, in the Job Information tab, enter the new lot number.

You can also select the name of any of the starting lots you are merging. The parent assembly number is transferred from the original lot number. The quantity in the Resulting Quantity field is the sum of all the original lots.

5. In the Start Operation, Dates tab; select the accounting class from the list of values.
6. Optionally, you can change the Start and Completion dates.
7. You can also enter routing and bill of material information in the Routing Information and the BOM and More tabs.
8. Save your work.

**To create WIP lot split transactions:**

1. Select the split transaction type.
2. In the Starting Lot region, in the Lot Number field, select the lot number of the parent lot to split.

The lot details display: assembly number, operation sequence number, intra-operation step, operation code, quantity remaining in the lot, alternate routing, and start date.

3. In the Resulting Lot region, in the Job Information tab, the new lot number displays.

The system automatically assigns a new lot number according to your setup in the Shop Floor Management Parameters window, see: [Defining Parameters](#), on page 2-11. When a lot is split, the new resulting lot designation is the original lot number, followed by the lot separator value set in the parameter, followed by sequential numbering.

The representative lot is transferred from the original lot number. Enter the quantity in the Resulting Quantity field.

4. In the Start Operation, Dates tab; select the accounting class from the list of values.
5. Optionally, you can change the Start and Completion dates.
6. You can also enter routing and bill of material information in the Routing Information and the BOM and More tabs.
7. Save your work.

### **▶▶ To create WIP lot update transactions:**

1. Select the update transaction type you want to perform.

Your choices are Update Assembly, Update Lot Name, Update Quantity, or Update Routing.

2. In the Starting Lot region, in the Lot Number field, select the lot number to update.

The lot details display: assembly number, operation sequence number, intra-operation stop, standard operation code, quantity remaining in the lot, alternate routing, and start date.

3. Different fields in the Resulting Lot region need to be updated, depending on which transaction you are creating.

For Update Assembly, in the Job Information tab, select the new assembly number in the Assembly field.

For Update Lot Name, in the Job Information tab, enter the new lot name in the Lot Number field.

For Update Quantity, in the Job Information tab, enter the new quantity in the Resulting quantity field.

For Update Routing, add routing data in the Routing Information tab.

4. In the Start Operation, Dates tab; select the accounting class from the list of values.
5. Optionally, you can change the Start and Completion dates.
6. You can also enter routing and bill of material information in the Routing Information and the BOM and More tabs.
7. Save your work.

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**Attention:** While performing Update Routing or Update Assembly transactions at the Queue intraoperation step, if you have phantom exploded components at the current operation—you must manually reverse the charges.

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## Running the WIP Lot Transactions Processor

After you create any WIP lot transaction, run the WIP Lot Transactions Processor to create the resulting lots.

### ►► To run the WIP lot transactions processor:

1. Navigate to the WIP Lot Transactions Processor window.
2. Choose Submit.

## Inventory Lot Transactions

Inventory Lot transactions enable you to split, merge, translate, and transfer inventory lots in Oracle Shop Floor Management.

*Lot Splitting:* You can divide a lot into any number of child lots. The split lots have a value proportional to the number of units being split away. When a lot is split into multiple children, the costs allocated to the starting lot are reallocated to the resulting lots.

New lot numbers are automatically assigned to the child lots of a split transaction, and can be changed. New lots are independent entities linked by a transaction history associating their genealogy.

*Lot Merging:* Multiple lots with identical assemblies can be combined to create a single merged lot.

The assemblies for the lot is automatically moved to the current operation.

*Lot Translating:* Enables users to either change the name of an inventory lot to another name, or convert one product to another product. For example, you can change the lot name, item, revision, or subinventory of an existing lot and move it to another assembly. Lot genealogy captures all transactions.

*Lot Transferring:* A Lot can be moved from one subinventory location to another.

## Creating Inventory Lot Transactions

1. Navigate to the Inventory Lot Transactions window.
2. Select a transaction type.  
Your choices are Split, Merge, Translate, Transfer. See: [Inventory Lot Transactions](#), on page 4-21.
3. The Transaction Date automatically displays as today's date, you can change this date.
4. Optionally, you can select the purpose of this transaction in the Reason field.
5. In the Reference field, enter any descriptive information to identify transactions, used on standard reports.

Inventory Lot Transactions (WSM)

Transaction Type: Split  
Reason: VendError  
Reference: [ ]

Transaction Date: 20/JUL/2000 11:52:03  
Transaction Id: 50779

**Starting Lots**

Lot Number	Item	Rev	Quantity	Subinventory	Locator
BDM-Lot-1B-M-1	WSM_ITEM_D		5	Store02	

**Resulting Lots**

Lot Number	Item	Rev	Quantity	Subinventory	Locator
BDM-Lot-1B-M-1*1	WSM_ITEM_D		5	Store02	

Save

- In the Starting Lot region, select a lot in the Lot Number field.

The lot details display: item number, quantity, subinventory location, and locator.

In the Resulting Lot region, depending on the type of transaction you are creating, different information is needed to complete the transaction.

- For split transactions, select the lot to split in the Starting Lot region.

In the Resulting Lot region—the system automatically assigns new lot numbers according to your setup in the Shop Floor Management Parameters window, see: [Defining Parameters](#), on page 2-11. When new lots are created, the resulting lot designation is the original lot number, followed by the lot separator value set in the parameter, followed by sequential numbering.

The lot details are transferred from the original lot number: item number, quantity, subinventory location, and locator. Enter the quantity of the new lot in the Quantity field. You can also change the subinventory location.

- For merge transactions, select the lots to combine in the Starting Lot region.

In the Resulting Lot region—the last lot number you select is the lot number used for all the merged lots. The system automatically assigns new lot numbers according to your setup in the Shop Floor Management Parameters window, see: [Defining Parameters](#), on page 2-11. When new lots are created, the resulting lot designation is the original lot number, followed by the value set in the parameter, followed by sequential numbering.

The lot details are transferred from the original lot number: item number, routing revision level, quantity, subinventory location, and locator. The quantity of the all the combined lots is the value in the Quantity field. You can change the subinventory location.

9. For lot translating transactions, select the lot you want to rename in the Starting Lot region.

In the Resulting Lot region—select the new name for the lot. You can change the item number in the Item field and the subinventory location, if required.

10. For lot transferring transactions, select the lot to move in the Starting Lot region.

In the Resulting Lot region—you can change the subinventory location.

11. Save your work.

## Creating Lots for New Sectors

The Assemblies manufactured in the first sector are getting completed into the respective subinventories. Now this lot is ready for the subsequent use in the next sector. The next step is to define the jobs in the subsequent sectors using the Lot Creation window. When a lot based job is created using lot creation feature, it is assumed that the starting component is necessarily issued to this job. Hence the starting component is pushed into this job ignoring the supply type defined for the component in the first operation.

### ►►. To create lots on the shop floor:

1. Navigate to the Lot Creation window.
2. Select an Inventory lot number in the Starting Lot field.

Information displays for subinventory location, locator number, item number and description, revision number, quantity on hand, and quantity available to transact.

3. In the Job Information tab, the Resulting Lot designation displays and is the original lot number, followed by the New Lot Separator value, followed by sequential numbering. You can also define the revision number and revision date for Bill of Material and routing in order to use the component and operations effectivity.

Information displays in the following fields and can be changed: Accounting Class, Completion Subinventory and Locator.

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**Attention:** Please note that the starting component with phantom supply type in the first operation of the subsequent sector assembly bill of material is not allowed. Hence the Lot Creation window does not permit you to create the lot based job with phantom supply type material in the first operation.

If you happened to define two component in the first operation, only one is pushed into this job based on the starting lot selected.

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**Starting Lot**

Starting Lot: 38118      Item: OSFM-KAN-MA  
 Subinventory: BULK      Revision:   
 Locator: B1.1.1..      Item Description: Assembly  
 Quantity On Hand: 50      Available: 50

**Resulting Lots**

Job Information    Quantity    Planning

Resulting Lot	Assembly	Alternate Routing	Rev	Routing Revision Date	Alternate BOM	Rev

Save

4. In the Quantity tab—The Job Quantity for this job is derived based on starting lot quantity available under this lot number and you can change the job quantity. You can also create multiple jobs for different assemblies and quantities. The system will create these multiple jobs and push this lot into the jobs. It is also allowed to create a job which is less than defaulted quantity. When you create a job using less than the starting lot quantity in the subinventory, the remaining quantity of the starting lot will be left in the subinventory and you can use of this for subsequent job creation. You can also issue a starting component for the quantity more than or less than equal to the component required quantity suggested by the system. In this case you can provide the required value in the Component Quantity Issued field. In addition the following information is available in this tab: component usage per assembly, component requirement for the job quantity, start Job Quantity, MRP Net. Some of these values can be changed depending on the transactions performed for this lot.
5. In the Planning tab, Start Date and Completion Date values display and can be changed. Check the Co-Products Supply check box to indicate that resulting lots are used as co-product supply.

6. Save your work.

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**Note:** The Lot and Serial Controlled assemblies are not supported in Oracle Shop Floor Management enabled Organization. Also The Lot and Serial Controlled item cannot be used as starting lot component while using Lot Creation form.

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## Kanban Replenishment on Lot Based Jobs

Kanban is a pull based replenishment process in a manufacturing system. You can create lot based and discrete jobs to replenish empty kanbans. In addition, kanban supports creation of lot based jobs by selecting the starting inventory lot during kanban replenishment process.

The following are major features of kanban support on a lot based jobs:

- During kanban replenishment process, you can choose the starting Inventory Lot for the item attached to first operation. This is similar to lot based job creation using Lot Creation window.
- Honor Kanban Size parameter is used to determine whether to create a lot based job quantity equal to kanban size when components are pushed from an inventory lot during kanban replenishment. If this check box is not checked, lot based jobs are created for the maximum number of assemblies which can be built using the selected component lot. If the check box is checked, the system will honor the kanban lot size.

Lot Based Jobs (VBO)

Job  Type

Assembly

Class  UOM

Status   Firm

**Quantities**

Start

MRP Net

**Dates**

Start

Completion

Bill | Routing | Job History | Schedule Group, Project | Planning, Scheduling | More

Demand Class  Kanban

Lot Number

Description

**Overcompletion**

Tolerance Type

Tolerance Value

- After a job is created using kanban replenishment, you can query the Lot Based Job window to view kanban information.
- The supply status of a production kanban is updated to Full when the assembly from replenishment lot based job is completed.
- Shop Floor Management allows a jobs with a kanban reference to be merged with another job with a different kanban reference (case 1), or a job with a kanban reference with a job without any reference (case 2). In the first case, one of the jobs is the representative lot, for that wip lot the net effect from a kanban standpoint is the same as a quantity update. But for non-representative lot the quantity become zero and the corresponding kanban card status is set to Empty and the job should be dereferenced. In the second case, if the kanban reference job is the representative lot, the net effect from a kanban standpoint is the same as a quantity update for that job. Else, the quantity become zero, the corresponding kanban card status is set to Empty and the job should be dereferenced. See: [Defining Kanban Pull Sequences](#), *Oracle Inventory User's Guide*.

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## Lot Genealogy

This chapter provides information about lot genealogy in Oracle Shop Floor Management, the following topics are included:

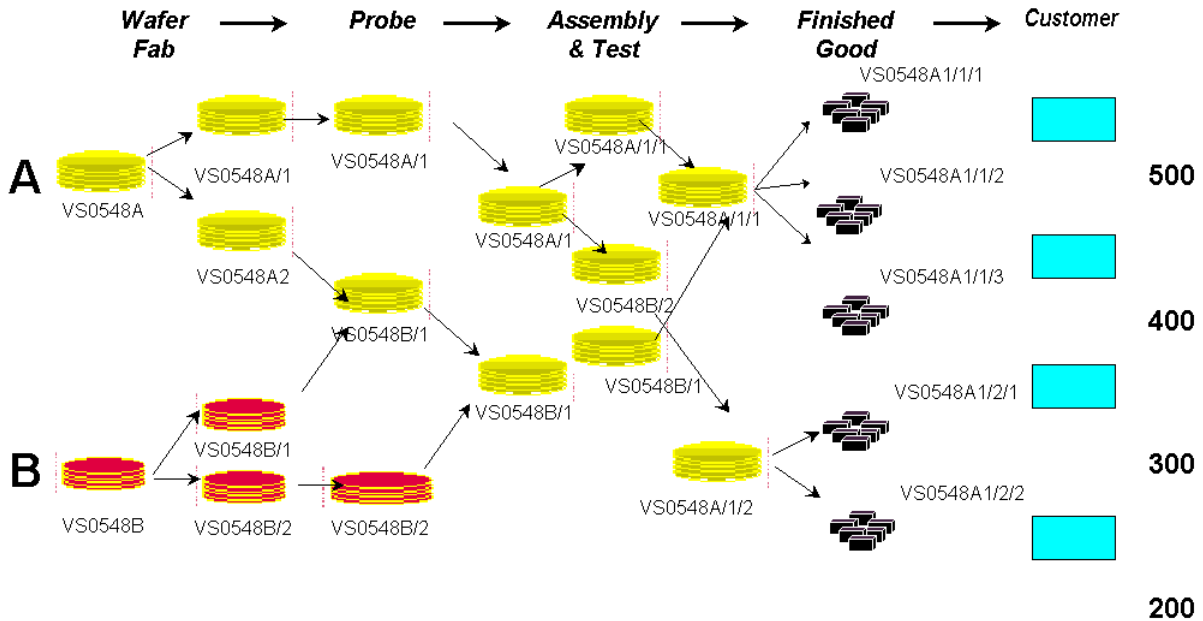
- Overview of Lot Genealogy on page 5-2
- Displaying Genealogy and Where-Used Views on page 5-3

## Overview of Lot Genealogy

Lot genealogy enables you to view the genealogy, or historical production information of a lot. It provides you with detailed information about where the lot has moved, subinventory stocking points, lot transaction types, and forward and backward tracking. You can view information regarding Inventory and WIP lots such as splits, merges, issues, and completions as they progress on the shop floor. The Lot Genealogy window shows how a WIP lot becomes an Inventory lot and vice versa. Lot Genealogy provides you with the ability to do the following:

- View the record of the products created by the lot's transactions
- View all the components used in the lot transactions
- Display detailed information about Inventory and WIP lots created
- See the lineage of where the lot was used

The following graphic displays the historical production of a lot. It shows the detailed information a lot moves through to become a finished good.



## Displaying Genealogy and Where-Used Views

You can view historical information for lot based jobs in the Lot Genealogy window. This graphical interface provides an integrated view of genealogy information for discrete jobs, lot based jobs, and Oracle Warehouse Management inventory transactions. You can view both material and lot based job transaction information.

### ▶▶ To view lot based job transaction genealogy:

1. Select Genealogy from the menu.
2. When the Find Lots/Jobs window appears, select the Jobs radio button.

3. Enter your search criteria.

You can query by Jobs, Assembly, job Status, a range of Start Dates, and a range of Completion Dates. You can combine or omit criteria as required.

4. Choose Find.

The Jobs Summary window appears with the records that meet your criteria and displays job name, status, assembly, and start and completion dates.



5. Select a record and choose View Genealogy.

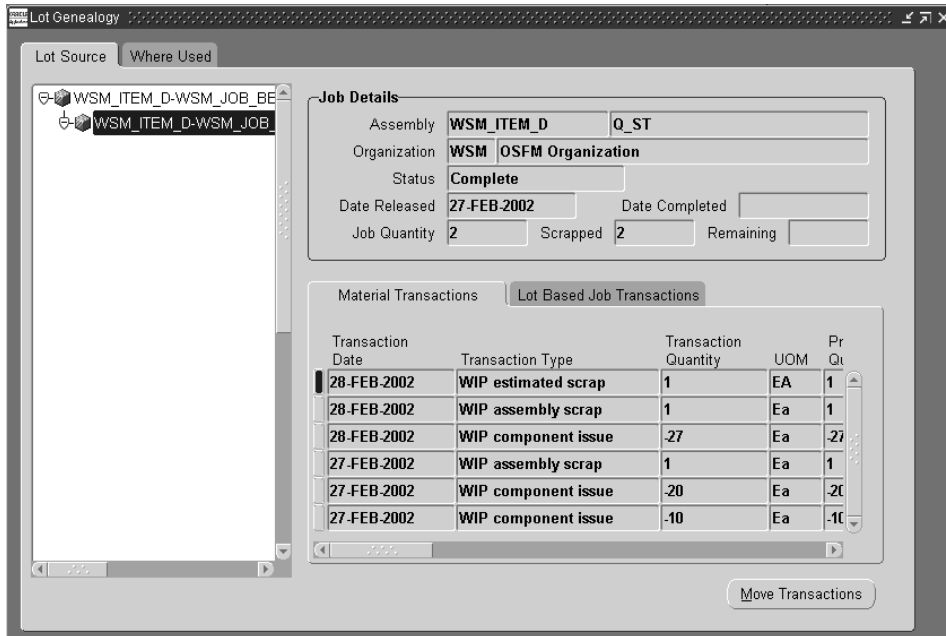
The Lot Genealogy window displays. The left pane is in a tree format containing two tabs for different views. The right pane displays job detail and transaction information.

6. Select the Lot Source or Where Used tab in left pane to view genealogy information.

Lot Source displays the source of the record you are viewing. It is designated by assembly name, appended by the job name, at the top node of the tree. For example, you may be producing a specific job from components of a particular lot. Material used in this assembly/job combination is expanded under the top node.

Where Used displays the assembly using this material. It is designated by assembly name, appended by the job name, at the top node of the tree. The assembly/job combinations using this top record are expanded below it.

When you select the Where-Used view, information is listed in order of oldest to current—from top to bottom of the list. The first record of the query is the parent lot, the records following are the children and grandchildren of this lot.

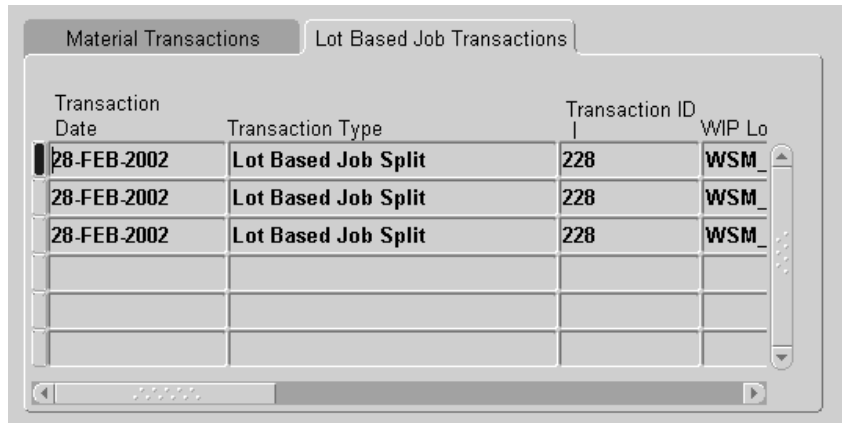


- In the right pane, information about the job displays in the Job Details region. Select the Material Transactions or Lot Based Job Transactions tab to view shop floor work performed.

The Material Transactions tab displays historical transaction information for the record selected on the hierarchical tree. This pane displays the transaction date, transaction type such as component issues or assembly completions, quantity, and item number.

The Lot Based Job Transactions tab displays the Oracle Shop Floor Management transactions such as splitting, merging, bonus lots, and updating assemblies. It

displays the previous values for WIP Lot Name, Start Quantity, and Assembly number—and the resulting values after the transaction.



The screenshot shows a software window titled 'Material Transactions' and 'Lot Based Job Transactions'. It contains a table with the following data:

Transaction Date	Transaction Type	Transaction ID	WIP Lo
28-FEB-2002	Lot Based Job Split	228	WSM_
28-FEB-2002	Lot Based Job Split	228	WSM_
28-FEB-2002	Lot Based Job Split	228	WSM_

8. Choose Move Transactions to access the View Move Transactions window. See: [Viewing Move Transactions](#), *Oracle Work in Process User's Guide*

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## Co-Products

This chapter provides information about defining co-product functionality in Oracle Shop Floor Management, the following topics are included:

- Overview of Co-Products on page 6-2
- Defining Co-Products on page 6-2
- Substitute Components Window on page 6-3
- Component Details Window on page 6-4
- Substitute Components Window on page 6-3
- Integration with Advanced Supply Chain Planning on page 6-6

## Overview of Co-Products

Co-products are assemblies or products belonging to the same product family, and manufactured from the same primary component. When you define co-products, you specify the assemblies, their planning percentages, and the primary component. One of the assemblies is the primary co-product and the others are the non-primary co-products. When you define the co-product group, corresponding bill of materials are created using both the primary bill of material and non-primary bill (or common bill) components. When you create co-products:

- Define an item as the primary component of several end items.
- Define the expected distribution across all the end items. When you create this information in the Define Co-Products window, the Bills of Material of the end items are automatically created.
- Associate a rank and a distribution percentage for the co-products.

Oracle Shop Floor Management is integrated with Oracle Planning enabling you to perform transactions such as implementing planned orders as lot based jobs and rescheduling existing lot based jobs from the Planner's Workbench.

## Defining Co-Products

### ►►To define Co-products:

1. Navigate to the Define Co-Products window.  
You can query an existing co-product relationship using the search criteria.
2. Select an item number in the Component field.
3. In the Usage region, enter the value or the inverse value to define the quantity usage for the above component in the Bill of Material. The Inverse is automatically derived from the usage value.
4. In the Effectivity Dates section, enter values From and To if this component is to be disabled at a future date.

Optionally, you can enter data to define an alternate or substitute component. See: [Substitute Components Window](#), on page 6-3.

Define Co-products (WSM)

Component:

Component Description:

Usage: Value  Inverse

Effective Dates: From  To

Details Substitutes

Co-Products

Co-Product	Rev	Primary	Split (%)	Alternate Bill	Co-Product Descriptive
CM63001	0	<input type="checkbox"/>	90		Raw Chip High Grad
AJLOT	0	<input checked="" type="checkbox"/>	10		Lot controlled
		<input type="checkbox"/>			
		<input type="checkbox"/>			
		<input type="checkbox"/>			

View BOM

5. In the Co-Products region, enter the Co-Product item name in the Co-Product field.  
You can define a number of co-products, enter the information for each record.
6. Check the Primary check box for the record that is your primary co-product.
7. Enter the percentage of the quantity used of this co-product in the Split percentage field.  
Total split percentage of all co-products must equal 100 percent.
8. Save your work.

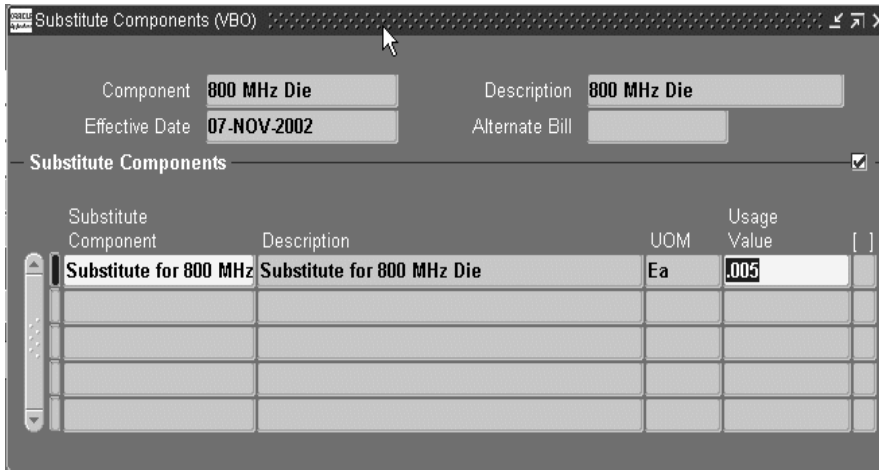
## Substitute Components Window

### ►► To define substitute components:

1. Navigate to the Define Co-Products window.

2. Select an item number in the Component field.
3. Choose Substitutes.

The Substitute Components window displays.



4. Default information default displays component item number, description, effective date, and alternate bill of material.
5. In the Substitute Components region, enter the item number in the Substitute Component field, and the quantity used in the Usage Value field.
6. Save your work.

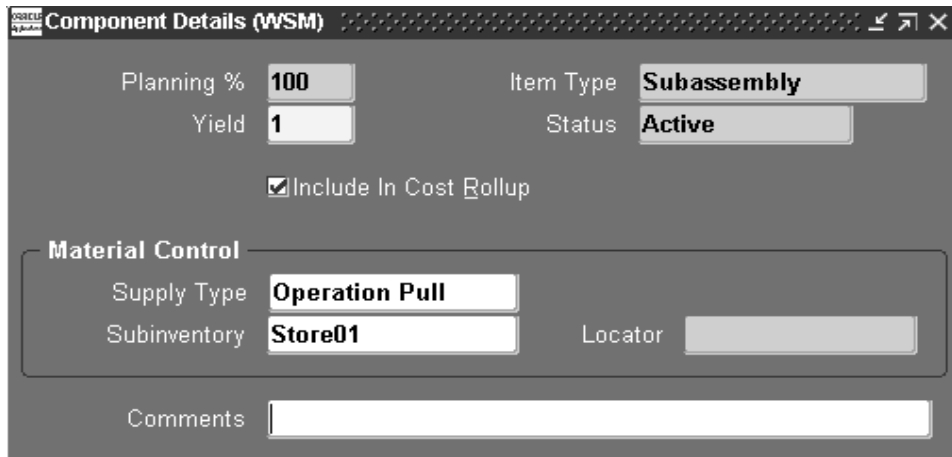
## Component Details Window

This window enables you to enter corresponding bill of material information for the component.

### ►► To define component details:

1. Navigate to the Define Co-Products window.
2. Select an item number in the Component field.
3. Choose Details.

The Component Details window displays default information for the Planning Percent, Yield, Item Type, Status, and Include in Cost Rollup fields and check box.



The screenshot shows a window titled "Component Details (WSM)". The fields and their values are as follows:

Planning %	100	Item Type	Subassembly
Yield	1	Status	Active
<input checked="" type="checkbox"/> Include In Cost Rollup			
<b>Material Control</b>			
Supply Type	Operation Pull	Locator	
Subinventory	Store01		
Comments			

4. In the Material Control region—the Supply Type field defaults to Operation Pull, and the Subinventory and Locator fields default to the values set up for this item number.

Optionally, you can update the Subinventory and Comments fields. In the Comments field you can enter a notation about information on this window. For example, a comment about why this part is not considered in a cost rollup if that check box is not marked.

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**Note:** Co-product component details, once entered, are updated on the corresponding bill of material window.

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## Integration with Advanced Supply Chain Planning

Advanced Supply Chain Planning calculates supply for multiple assemblies based on the demand for any one of the possible co-product assemblies. The planner can generate and release planned orders for the item for which demand was realized. The planner can view co-product supplies being generated for the rest of the items in the co-product relationship. This enables tracking of the production for all co-products. The same applies if the planned order is converted into a lot based job.

Oracle Advanced Supply Chain Planning collection program collects the co-products information into the planning server which is then used by the planning engine.

### See Also

[Oracle Advanced Supply Chain Planning](#), *Oracle Advanced Supply Chain Planning, Oracle Risk Optimization, and Oracle Global Order Promising User's Guide*

[Setup Steps](#), *Oracle Advanced Supply Chain Planning, Oracle Risk Optimization, and Oracle Global Order Promising User's Guide*

[Overview of Defining Plans](#), *Oracle Advanced Supply Chain Planning, Oracle Risk Optimization, and Oracle Global Order Promising User's Guide*

[Constraint Types](#), *Oracle Advanced Supply Chain Planning, Oracle Risk Optimization, and Oracle Global Order Promising User's Guide*

[Items](#), *Oracle Advanced Supply Chain Planning, Oracle Risk Optimization, and Oracle Global Order Promising User's Guide*

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# Costing in Oracle Shop Floor Management

This chapter provides information about costing in Oracle Shop Floor Management. The Oracle Cost Management User Guide is a prerequisite for understanding this chapter. Since lot based jobs are costed using Standard Costing, sections specific to other costing methods may be skipped, the following topics included are:

- Overview of Lot Based Job Costing on page 7-2
- Cost Rollup for Network Routings on page 7-2
- Standard Cost Update for Lot Based Jobs on page 7-2
- Lot Based Jobs Transaction Costing on page 7-3
- WIP Lot Based Jobs Transaction Costing on page 7-7

## Overview of Lot Based Job Costing

Many companies, such as those in the semiconductor industry, need to account for estimated scrap at each operation of a job. Operation yield is expressed as the compliment of the estimated scrap at each operation. When defining an item's routing, you can enter operation yields at each operation on that routing, and specify whether that operation's yield is to be rolled up into the assembly cost.

The cost rollup includes this estimated yield loss absorption. During a lot's WIP execution, operation yield cost is charged to the lot. Any difference between estimated scrap absorption and actual scrap is tracked by operation and by department.

Oracle Shop Floor Management includes the following features:

- Define operation level yields on the routing of a product
- Collect actual yields for a lot at all the required operations
- Calculate yield loss as part of the cost of the product

### See Also

[Selecting and Item/Cost Type Association](#), *Oracle Cost Management User's Guide*

[Bills and Cost Rollups](#), *Oracle Cost Management User's Guide*

[Defining Operation Yield Values on Routings](#), on page 3-13

## Cost Rollup for Network Routings

Cost Rollup considers material, overhead, and resource costs using the reverse cumulative yield as well as component and manufacturing shrinkage. The operation yield is factored into the rollup cost for the assembly if the Include in Rollup and the Operation Yield Enable flags are enabled for the operation on the routing. The operation is included in the cost rollup if the Include in Rollup flag is enable, irrespective of whether the operation lies on the primary or alternate path.

## Standard Cost Update for Lot Based Jobs

As in discrete jobs, Standard Cost Update revalues job balances , creates accounting adjustments and prints the adjustments along with the new job values in the standard cost WIP adjustment report. However, new department-based overheads

are not added to prior operations for lot based jobs. These new overheads are only included in future operations on the job.

Adjustments to the job are generally offset by the standard cost adjustment account on the WIP accounting class. However, adjustments to WIP relieved value due to scrap in standard lot based jobs, are offset by the department actual scrap account. Also, the adjustment to the Estimated Scrap due to the standard cost update is offset by the department Estimated Scrap Absorption account. Standard Cost Update does not adjust existing jobs for changes made to the operation yield.

## Phantom Routings

The department on the phantom routing should be the same as the department of the operation that uses the phantom. This is important because estimated scrap accounting is based on the operation department.

Operation yields in phantom routing are not included (rollup) into the parent operation's yield. See: [Phantoms in Lot Based Jobs](#)

## Lot Based Jobs Transaction Costing

There are seven types of WIP lot transactions available to lot based jobs including split, merge, update assembly, bonus, update routing, update quantity, and update lot number. Oracle Shop Floor Management enables you to include operation yields in the cost of an assembly for lot based jobs. During a lot's progression on the shop floor the following transactions require costing: move, scrap, split, merge, bonus, and update quantity.

### Move Transaction Costing

A move transaction moves assemblies within an operation, such as from queue to run, or from one operation to the next. Move transactions can automatically launch backflushing, charge resources and overheads. Manufacturing transactions created manually by the user, or due to backflush by the move processor, are costed similar to standard discrete jobs. See: [Manufacturing Standard Cost Transactions](#), *Oracle Work in Process User's Guide*.

### Estimated Scrap Accounting

As the WIP Lot progresses through each operation in the job, the department tied to the operation receives credit as Estimated Scrap Absorption for additional cost due to the operation yield. The job is debited as Estimated Scrap for this same cost.

Consider an operation 10, department A, with operation yield of 70%. If 100 units were sent into operation 10 in order to produce 10 completed units, then at 100% yield, the unit cost of the assembly is assumed to be \$10. However, at the estimated yield of 70%, the unit cost is  $(100 * 10)/70$

Hence the additional cost per unit assembly due to operation yield is

$$(100*10)/70- 10 = 10 * (1/0.7 - 1) = 10 * [(1-0.7)/0.7]$$

Estimated Scrap per unit = (Total operation cost per unit through the current operation + Total Estimated Scrap Cost per unit through the previous operation) \*  $[(1 - \text{op.yield})/\text{op.yield}]$

Dollars absorbed by the department due to good units completed in an operation = Estimated Scrap per unit \* Number of good units that passed through the operation.

The accounting entries for estimated scrap absorption transaction are:

Account	Debit	Credit
WIP Valuation Estimated Scrap Account	XX	
Department Estimated Scrap Absorption Account		XX

Consider a second operation 20 following operation 10 from the previous example:

Suppose that, out of the 70 good units that were sent into operation 20, 5 units were scrapped at operation 20. Since these have absorbed the additional cost due to estimated scrap in each of the previous operations (operation 10 in the present example), it is essential to reverse the estimated scrap absorption that has been done for the scrapped units.

Net Reversal = (Total estimated scrap per unit through the previous operation) \* Number of units actually scrapped

Account	Debit	Credit
Department Actual Scrap Account	XX	
WIP valuation Estimated Scrap Account		XX

The assembly scrap is charged based on the job requirements to the actual scrap account defined for the department. See: [Assembly Scrap Transactions](#), *Oracle Cost Management User's Guide*.

<b>Account</b>	<b>Debit</b>	<b>Credit</b>
Department Actual Scrap Account	XX	
WIP Valuation Accounts		XX

Completion transactions relieve the WIP Valuation Accounts of the accounting class and charge the inventory valuation accounts based on the assembly's standard cost (Frozen). The operation yield cost is relieved from the Estimated Scrap Account.

<b>Account</b>	<b>Debit</b>	<b>Credit</b>
INV Valuation Material Account	7.0	
INV Valuation Material Overhead Account	1.2	
INV Valuation Resource Account	3.5	
INV Valuation Overhead Account	2.3	
INV Valuation Outside Processing Account	2.0	
WIP Valuation Material Account		6.0
WIP Valuation Material Overhead Account		1.0
WIP Valuation Resource Account		3.0
WIP Valuation Overhead Account		2.0
WIP Valuation Outside Processing Account		1.0
WIP Valuation Estimated Scrap Account		3.0

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**Note:** The WIP Estimated Scrap is allocated to the five INV accounts.

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As in discrete jobs, the job close process writes off any remaining balances in the WIP Valuation Accounts to the respective variance account. The balance in the Estimated Scrap Account is written off the accounting class Estimated Scrap Variance Account.

Account	Debit	Credit
WIP Estimated Scrap Variance Account	XX	
WIP Valuation Estimated Scrap Accounts		XX

The estimated scrap variance is primarily caused by deviations from the standard BOM or Routing. The difference between the estimated scrap absorption and actual scrap is the indicator reflecting the department’s performance.

### Disabling Estimated Scrap and Operation Yield Accounting

In some industries, such as the metals industry, there is no need to do estimated scrap absorption accounting as the scrapped items may be reused as a separate product. In addition, there may be no need to relieve cost from the job at the time of scrap.

You can choose to disable estimated scrap accounting for any organization to simplify accounting setups and variance analysis. The Estimated Scrap Accounting flag is on the Shop Floor Parameter window. You can change the value on this field only if all lot based jobs are in one of the following statuses - Unreleased, Closed, On hold, or Canceled.

If this field is set to enabled, the scrap transaction cost is relieved from the job and the scrap account is required on the Departments window. Estimated Scrap Accounting is performed as the job is moved from one operation to the next.

When it is set to disabled, there is no Estimated Scrap Accounting. The Estimated Scrap Absorption and the actual Scrap accounts are not required on the Departments window. Other aspects of this feature include:

- You may rollup cost into an updateable Cost Type with or without operation yield costing.

- The Assembly Cost Rollup does not change because cost is calculated based on the Include In Rollup and Operation Yield Enabled flags in the network routing. These flags are independent to the Estimated Scrap Accounting decision.
- If the standard cost (Frozen Cost Type) is based on operation yield costing, the estimated scrap cost is included in the five cost elements for both Inventory Valuation and job completion costing. There will be no credit to the WIP Estimated Scrap Account for Assembly Completion transactions.
- At the time of the scrap transaction, you can enter a scrap account on the Move Lot Based Jobs window to relieve costs from the work order. Generally, if your standard cost is based on Yield Costing, you will not provide a scrap account and leave the scrap in the job. If your standard cost is not based on Yield Costing, you will provide a scrap account and the job will be relieved of scrap. In either case, the quantity scrapped in the operation is updated.
- The operation yield costing and scrap costing decision should be the same for an item. This consistency will reduce variance. However you may decide differently for different items.

### **Non Standard Expense Lot Based Jobs**

- Non Standard Expense Lot Based Jobs disable Estimated Scrap accounting whether or not Estimate Scrap accounting is enabled at the Inventory Organization level.
- Non Standard Expense Discrete Jobs are not earn Material Overhead on completion, and is not be revalued by standard cost update.
- Unlike Non Standard Expense Discrete Jobs, variances in Non Standard Expense Lot Based Jobs are not flushed out at period close.
- You can perform WIP lot transactions on non standard lot based jobs. The costing of these transactions is similar to that of standard lot based jobs.

## **WIP Lot Based Jobs Transaction Costing**

There are seven types of WIP lot transactions available to lot based jobs including split, merge, update assembly, bonus, update routing, update quantity, and update lot number. WIP Lot Transaction can be done at the queue or to move intra-operation steps. However, it is not recommended that scrap transactions followed by WIP Lot transactions be performed at the queue intra-operation step.

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**Note:** Performing scrap transactions in a separate operation allows for more intuitive costing.

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During a lot's progression on the shop floor the following transactions have costing implications:

- Lot Split Transactions
- Lot Merge Transaction
- Bonus Transactions
- Update Quantity Transactions

Lot Based charges include lot based resources, lot based departmental overheads, and resource based overheads based on lot based resources.

### **Lot Split Transactions**

When you divide a single parent lot into multiple child lots, the actual costs of materials and resources issued to the parent lot (including lot based resources and overheads) are reallocated to the child lots, based on the quantity ratios. The actual costs (the net value remaining in the parent lot) are reallocated to the child lots on a sub-elemental basis. If the net value for any sub-element is negative, it is not reallocated to the child lots and is remain in the parent.

At the time of a split, WIP Lot Spilt transactions are created, that will adjust the WIP value of the parent lot and resulting lots with the appropriate balance.

Consider a lot A of size 10 with material charges of \$100, items based resource charges of \$50, and lot based resource charges of \$50. One item is scrapped, resulting in a relief of \$20.

The net balance in lot A is  $(\$200 - \$20) = \$180$ .

If this lot were split into lot B of size 4 and lot C of size 5, the net balance is proportionally reallocated to the child lots. The parent receive a credit of \$180, and the children receive a debit based on the quantity ratio:

Lot B receive a debit of  $(4/9) * \$180 = \$80$

Lot C receive a debit of  $(5/9) * \$180 = \$100$

The accounting entries are:

Account	Debit	Credit
WIP Valuation Accounts for resulting lots	XX	
WIP Valuation Accounts for starting lot		XX

The estimated scrap absorption in the parent is reversed for the charge that has been reallocated to the child lots. Each child lot receive a debit for the additional cost due to operation yield based on the charge that has been reallocated to it.

For the starting lot:

Account	Debit	Credit
Department Estimated Scrap Absorption Account	XX	
WIP Valuation Estimated Scrap Accounts		XX

For resulting lot:

Account	Debit	Credit
WIP Valuation Estimated Estimated Scrap Account	XX	
Department Estimated Scrap Absorption Accounts		XX

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**Note:** Cost incurred by the scrapped quantity remain in lot A.

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### Merge Lots

When combining several lots into a single existing lot, the cost of materials and resources is reallocated to the resulting lot. The cost is proportionately reallocated to the resulting lot, based on the costs incurred by the representative lot. The net value in the representative lot is reallocated to the resulting lot on a sub-element basis. If the net value for any sub-element is negative, it is not reallocated to the resulting lot and will remain in the parent.

The lot based charges are not proportioned and the resulting lot incur the same lot based charges as the representative lot. Lot based charges incurred by the non-representative lots are not charged to the resulting lot.

Consider a lot A of size 10 with a material charge of \$100, item based resource charges of \$50. In addition, A has a charge of \$100, which is incurred because component E was pushed to the lot.

Consider a lot B of size 10 with a material charge of \$100, item based source charges of \$50, and lot based resource charges of \$50. In addition, B has a charge of \$200, which it incurred because a different component F was pushed to the lot.

Merge lot A and B into a lot C of size 20. Choose A as the representative lot.

Since A is the representative lot, all charges in C are based on charges incurred by lot A. Hence lot C will receive a debit of:  $[(20/10) * (\text{item based charged})] + (\text{lot based charges}) = [(20/10) * (\$250)] + (\$50) = \$550$ .

Lot A receive a credit of:  $(10/20) * \$500 + \$50 = \$300$

Lot B receive a credit of:  $(10/20) * \$500 = \$250$

The additional charges of \$200 that was incurred by lot B, but not by lot A, remain in lot B. The lot based charges incurred by B is not charged to the resulting lot and remain in lot B. Lot B therefore have a net balance of \$150.

The accounting entries are:

Account	Debit	Credit
WIP Valuation Accounts for resulting lot	XX	
WIP Valuation Accounts for starting lots		XX

The estimated scrap absorption in the starting lots are reversed for the charge that has been reallocated to the resulting lot. The resulting lot absorb the additional cost due to operation yield based on the charge that has been reallocated to it.

For the starting lots:

Account	Debit	Credit
Department Estimated Scrap Absorption Account	XX	

<b>Account</b>	<b>Debit</b>	<b>Credit</b>
WIP Valuation Estimated Scrap Accounts		XX

For the resulting lot:

<b>Account</b>	<b>Debit</b>	<b>Credit</b>
WIP Valuation Estimated Scrap Account	XX	
Department Estimated Scrap Absorption Account		XX

### **Bonus Lots**

You can create bonus lots to perform operations on assemblies that were previously scrapped. The quantity starts in the intra-operation step of queue of the starting operation. Therefore, components at the starting operations are not automatically charged when the bonus lot is created. The standard cost of the assembly through the previous operation is credited to the bonus account. The account is often the scrap account. Operation yield is calculated for all previous operations, based on standards.

Consider an assembly A with a component B (\$10) and a resource R1 (\$2) at operation 10. It also has a component C (\$20) and a resource R2 (\$1) at operation 20.

Create a bonus lot, lot-A of size 10 at operation 20. The lot incur all charges in operation 10. Since the lot is at the intra-operation step of queue at operation 20, charges in operation 20 is not included in the bonus lot.

Hence lot-A incur a charge of:  $10 * \$10 + 10 * \$2 = \$120$ .

The accounting entries are:

<b>Account</b>	<b>Debit</b>	<b>Credit</b>
WIP Valuation Accounts for bonus lots	XX	
Bonus Account (user specified)		XX

The bonus lot also receive a debit for the additional cost due to operation yield based on the charge that it has incurred.

<b>Account</b>	<b>Debit</b>	<b>Credit</b>
WIP Valuation Estimated Scrap Account	XX	
Bonus Account (user specified)		XX

### Update Quantity

You can increase the quantity remaining in a job using the update quantity transaction. Cost incurred by the job (except lot based cost) will be proportionately debited to the job, based on the new quantity and the net value remaining in the job. The net value remaining in the parent job is reallocated on a sub-elemental basis. If the net value for any sub-element is negative, it is not reallocated to the resulting lot.

The lot based charges are not proportioned in the update lot.

The credit is to the account specified while creating the update quantity transaction and is often the scrap account.

Consider a lot A of size 10 with a material charge of \$100, lot based resource charge of \$50, and resource based overhead charges of \$20 from overheads associated to the lot based resources.

Update the quantity in lot A to 20.

The cost incurred in the new lot is:  $[\$100 * (20/10) + \$50 + \$20 = \$270$

The non-lot based charges of \$100 are proportioned. The remaining lot based charges are not proportionate and remain in the job. Hence lot A receive a credit of \$100.

The accounting for the new charges to the job are:

<b>Account</b>	<b>Debit</b>	<b>Credit</b>
WIP Valuation Account	XX	
Bonus Account (user specified)		XX

The updated lot also receive a debit for the additional cost due to operation yield based on the additional charge that it has occurred.

The accounting entries are:

<b>Account</b>	<b>Debit</b>	<b>Credit</b>
WIP Valuation Estimated Scrap Account	XX	
Bonus Account (user specified)		XX

### **Update Routing and Update Assembly**

While performing update routing or update assembly transactions at the queue intra-operation step, if you have manual resources and overheads or push component on the current operation, you must manually reverse the charges.

### **Lot Based Transaction are Integrated into Cost Manager**

All transactions for the lot based jobs, including WIP lot transactions, are costed by the cost manager. In the sequence in which they occurred. If costing fails for any of these transactions, all subsequent transactions for lot based jobs in that organization will be suspended until that error is corrected.

### **Transaction Import through MES**

To correctly cost WIP lot transactions, it is essential to cost the transactions in a sequence. The cost manager sequentially cost all transactions based on the date on which they occurred. However, if a transaction with a prior date is imported through MES, there is a possibility that some subsequent WIP lot transactions on the job have already been costed. The WIP lot transactions are not reflex the late transactions.

If this timing problem is significant, you can use the date cutoff feature to shut off the cost manager until all relevant transaction on the job have been imported. You can set the date cutoff to process for anytime range you wish. This way all transactions are correctly processed in sequence. See: [Cost Manager](#), *Oracle Cost Management User's Guide*.

### **WIP Value Summary**

You can use the WIP Value Summary window to view cost elements, if transaction related to the job have been costed. The estimated scrap cost incurred and relieved

is displayed in the Operation Yield tab. You can also drill down to the detailed accounting distributions that contributed to the WIP value.

## Reports

The work in process reports enable you to view calculations of estimated scrap incurred, estimated scrap relieved, and estimated scrap variances on lot based jobs, in addition to the five cost elements (Material, Material Overhead, Resource, Overhead, Outside Processing). See: [Discrete Job Value Report](#), *Oracle Work in Process User's Guide*.

You can analyze these cost by work order, as well as track departmental performance using the discrete job value report. See: [WIP Value Report](#), *Oracle Work in Process User's Guide*.

## See Also

[Oracle Advanced Supply Chain Planning](#), *Oracle Advanced Supply Chain Planning*, *Oracle Risk Optimization*, and *Oracle Global Order Promising User's Guide*

[Constraint Types](#), *Oracle Advanced Supply Chain Planning*, *Oracle Risk Optimization*, and *Oracle Global Order Promising User's Guide*

[Items](#), *Oracle Advanced Supply Chain Planning*, *Oracle Risk Optimization*, and *Oracle Global Order Promising User's Guide*

[Manufacturing Resources](#), *Oracle Advanced Supply Chain Planning*, *Oracle Risk Optimization*, and *Oracle Global Order Promising User's Guide*

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## Closing Lot Based Jobs

This chapter provides information about lot Closing and Unclosing Lot Based Jobs in Oracle Shop Floor Management, the following topics are included:

- Closing Lot Based Jobs on page 8-2
- Unclosing Lot Based Jobs on page 8-7

## Closing Lot Based Jobs

You can close lot based jobs using the Close Lot Based Jobs (Form) window or the Close Lot Based Jobs Submit Requests(SRS) window. The choice depends on your requirements.

The Close Lot Based Jobs (Form) window enables you to:

- Submit and process lot based job close requests
- Specify the actual close date, this can be different than the transaction date
- View the pending transaction summaries before closing
- Using summary form you can close multiple lot based jobs

The Close Lot Based Jobs Submit Requests window enables you to:

Submit the concurrent request to close the lot based job. To use the request option, you need to specify the parameter using different criteria like set of jobs, release date, job status, actual close date. This provides the ability to close the multiple lot based jobs

The business requirements for closing the lot based job using forms or reports are the same. You cannot close a job that has pending material, resource, or move transactions including those that the concurrent manager has not processed. Also you cannot close a job that has uncostered material transactions. Prior to closing lot based jobs, you can review job value information using the Job Value Report, which lists standard and non-standard asset jobs, or the Expense Job Value Report, which lists non-standard expense jobs. You can also see the summary of pending transaction while using Lot Based Jobs close using forms.

### See Also

Overview of Function Security, *Oracle Applications System Administrator's Guide*

[Discrete Job Value Report](#), *Oracle Work in Process User's Guide*

### ►►To close a lot based job using the Close Lot Based Jobs window:

1. Navigate to the Close Lot Based Jobs window.

The Find Lot Based Jobs window displays.

Find Lot Based Jobs (WSM)

Jobs [ ] - [ ]

Type [ ]

Assembly [ ]

Schedule Group [ ]

Build Seqs [ ] - [ ]

Class [ ]

Start Dates [ ] - [ ]

Completion Dates [ ] - [ ]

Status

Unreleased  Released

Complete  On Hold

Closed

Clear Find

2. Enter your criteria and choose Find.

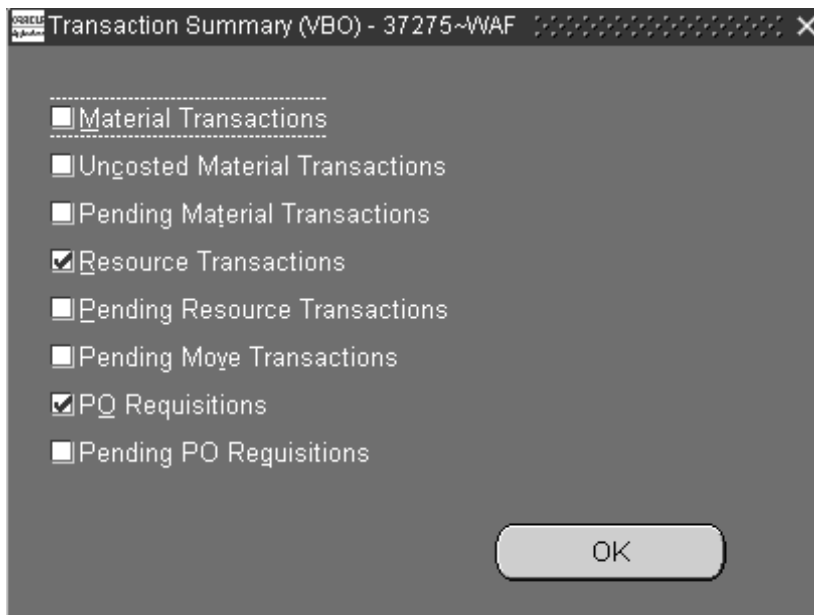
The Close Lot Based Jobs Summary window displays.

3. Select a job, or multiple jobs, and choose Open to display the Close Lot Based Jobs window.

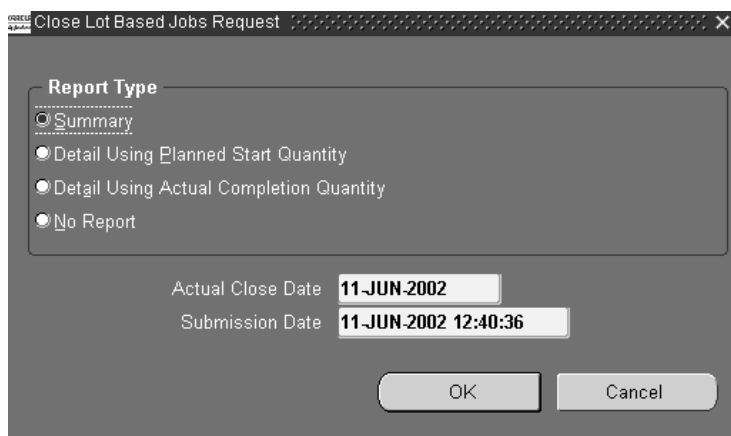
You can only close jobs with statuses of Cancelled, Complete, Complete – No Charges, Failed Bill Load, Failed Close, Failed Routing Load, On Hold, Released, and Unreleased.

4. Select Transaction Summary from the Tools menu to view all pending transactions.

Only jobs without pending transactions can be closed.



5. Select Close from the Tools menu to display the Close Lot Based Jobs Request window. This window is used to select close options.



6. Select a report type.

Reports are printed, per the Report Type specified, after the close process computes job close variances. The *Discrete Job Value Report – Standard Costing* is printed when standard lot based jobs and non-standard asset jobs are closed. The *Expense Job Value Report* is printed when expense non-standard jobs are closed. Report Type options and formats are as follows:

- *Summary*: Lists each job and includes job header, period-to-date summary, and cumulative-to-date summary information.
  - *Detail Using Planned Start Quantity*: Lists each job using the planned start quantity of the job to calculate the material usage variance.
  - *Detail Using Actual Completion Quantity*: Lists each job using the actual completion quantity of the job to calculate the material usage variance.
  - *No Report*: Does not print a report.
7. Select an Actual Close Date, the system date is the default.
  8. Select a Submission Date and time, the system date and time is the default.
  9. Choose OK to submit this request.

Only those jobs with appropriate statuses are closed. The statuses of jobs that are being closed are changed to Pending Close until the close process completes.

### ►►To close a lot based job using Submit Requests:

1. Navigate to the Close Lot Based Jobs (SRS) window. The Parameters window appears.

The screenshot shows a 'Parameters' dialog box with the following fields and values:

- Class Type: [Empty]
- From Class: [Empty]
- To Class: [Empty]
- From Job: [Empty]
- To Job: [Empty]
- From Job Release Date: [Empty]
- To Job Release Date: [Empty]
- From Job Start Date: [Empty]
- To Job Start Date: [Empty]
- From Job Completion Date: [Empty]
- To Job Completion Date: [Empty]
- Status: Complete - No Charges
- Exclude Reserved Jobs: Yes
- Exclude Un-Completed Jobs: Yes
- Exclude Jobs with Pending Trans: Yes
- Report Type: Summary
- Actual Close Date: 26-MAR-2003

2. Select an accounting class in the Class Type field, or range of accounting classes in the From and To Class fields.

The options are Standard discrete, Asset non-standard, or Expense non-standard. If you do not select a class type, the system closes job for all class types.

If you select a class type, you can only select accounting classes of that class type. If you do not select a To Class, all jobs from the From Class forward are closed. If you do not select a From Class, all jobs through the To Class are closed.

3. Select a range of lot based jobs to close in the From and To Job fields.  
If this field is left blank, all jobs that fit the close requirements are closed.
4. You can select a range of job release dates, job start dates, job completion dates in the From and To fields.
5. Select a job Status.

You can only close jobs with one with the following statuses: Cancelled, Complete, Complete – No Charges, Failed Bill Load, Failed Close, Failed Routing Load, On Hold, Release, or Unreleased.

6. Exclude Reserved Jobs parameter gives you the option to exclude or include jobs linked to sales orders from the processing.
7. Exclude Un- Completed jobs parameter, gives you the option to exclude or include jobs having a status other than Complete from the processing.
8. Select a Report Type

Reports are printed, per the Report Type specified, after the close process computes job close variances. The *Discrete Job Value Report – Standard Costing* is printed when standard lot based jobs and non-standard asset jobs are closed. The *Expense Job Value Report* is printed when expense non-standard jobs are closed. Report Type options and formats are as follows:

- *Summary*: Lists each job and includes job header, period-to-date summary, and cumulative-to-date summary information.
  - *Detail using planned start quantity*: Lists each job using the planned start quantity of the job to calculate the material usage variance.
  - *Detail using actual completion quantity*: Lists each job using the actual completion quantity of the job to calculate the material usage variance.
  - *No Report*: Does not print a report.
9. Choose OK to submit the request.

See: [Submitting a Request](#), *Oracle Applications User's Guide*

## Unclosing Lot Based Jobs

You can use the Unclose Lot Based Jobs window to reopen jobs that are closed. You cannot unclose a job that does not have a status of Closed. This function is not available if the job was closed in an accounting period that is currently closed.

Information associated with a job is not deleted when the job is closed. You can view information for closed discrete jobs. You cannot purge Lot Based Job record. You also can print reports on closed jobs and closed job values. See: [Discrete Job Data Report](#), *Oracle Work in Process User's Guide*, and [Discrete Job Value Report](#), *Oracle Work in Process User's Guide*

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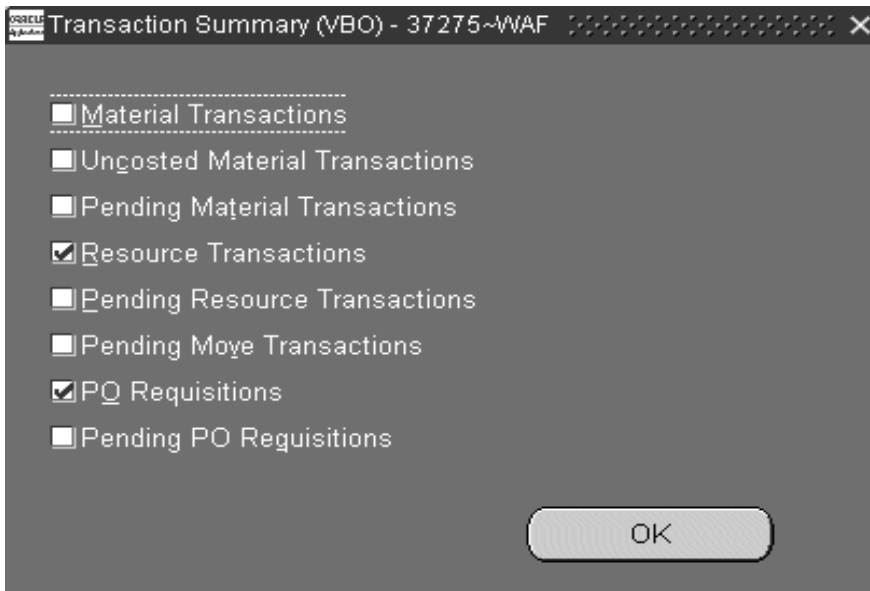
**Warning:** Only jobs closed in error should be unclosed, and this should be done immediately after the close. If assembly costs are rolled up between the time you close then unclosed a job, your costs may be incorrect because the unclosed process does *not* revalue the job.

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**►►To unclosed a lot based job:**

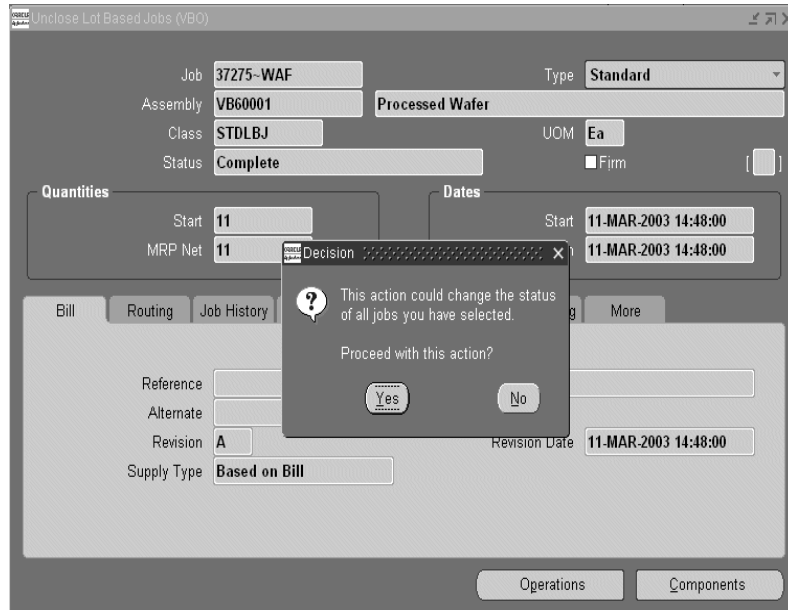
1. Navigate to the Unclosed Lot Based Jobs window.  
The Find Lot Based Jobs window displays.
2. Enter your criteria and choose Find.  
The Unclosed Lot Based Jobs Summary window displays.
3. Select a job, or multiple jobs, and choose Open to display the Unclosed Lot Based Jobs window.



4. Select Transaction Summary from the Tools menu to view all pending transactions.

5. Select Unclose from the Tools menu.

A Decision window displays prompting you about proceeding with this action.



6. Choose Yes to unclose your job.



# A

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## Windows and Navigator Paths

This appendix provides the default navigator paths for Oracle Shop Floor Management.

## Windows and Navigator Paths

The following table shows how to find detailed information described in other manuals.

Advanced Supply Chain Planning	Refer to the Oracle Advanced Supply Chain Planning, Oracle Risk Optimization, and Oracle Global Order Promising User's Guide
BOM	Refer to the Oracle Bill of Materials User's Guide
Inventory	Refer to the Oracle Inventory User's Guide
Quality	Refer to the Oracle Quality User's Guide
User	Refer to the Oracle Application User's Guide
WIP	Refer to the Oracle Work in Process User's Guide

The following table shows windows and navigation paths for Oracle Shop Floor Management.

Window Name	Navigation Path
Alternates	Shop Floor > Routings > Alternates BOM > Setup > Alternates
Calculate Cumulative Yield for Network Routing	Shop Floor > Run Requests
Close Lot Based Jobs	Shop Floor > Lot Transactions > Close Lot Based Jobs Close Lot Based Jobs (Form)
Component Details	Shop Floor > Co-Products > Define Co-Products > Details
Component Pick Release	Shop Floor > Lot Transactions > Component Pick Release > Find Lot Based Jobs
Departments	Shop Floor > Routings > Departments BOM > Routings > Departments
Lot Based Jobs	Shop Floor > Lot Based Jobs > Find Lot Based Jobs
Lot Based Transaction Cost Manager	Shop Floor > Run Requests > Lot Based Transaction Cost Manager
Lot Based Jobs Summary	Shop Floor > Lot Based Jobs > Find Lot Based Jobs > Find

<b>Window Name</b>	<b>Navigation Path</b>
Lot Creation	Shop Floor > Lot Transactions > Lot Creation
Define Co-Products	Shop Floor > Co-Products
Inventory Lot Transactions	Shop Floor > Lot Transactions > Inventory Lot Transactions
Lot Creation	Shop Floor > Lot Transactions > Lot Creation
Lot Genealogy	Shop Floor > Lot Genealogy > Find Lots/Jobs > Jobs Summary > View Genealogy >
Material Requirements	Shop Floor > Lot Based Jobs > Find Lot Based Jobs > Lot Based Jobs > Components
Move Lot Based Jobs	Shop Floor > Lot Transactions > Move Transactions
Operation Resources	Shop Floor > Network Routings > Routings > Operation Resources
Operations	Shop Floor > Lot Based Jobs > Find Lot Based Jobs > Lot Based Jobs > Operations
Personal Profile Values	Shop Floor > Other > Profile
Resource Transactions	Shop Floor > Lot Transactions > Resource Transactions WIP > Resource Transactions > Resource Transactions
Routing Details	Shop Floor > Network Routings > Routings > Routing Details
Routing Network	Shop Floor > Network Routings > Routings > Network Routing
Routings	Shop Floor > Network Routings
Sector Extensions and Item/Subinventory Association	Shop Floor > Setup > Sector Extensions > Find Sector Extension
Shop Floor Management Parameters	Shop Floor > Setup > Parameter
Standard Operations	Shop Floor > Routings > Standard Operations BOM > Routings > Standard Operations
Standard Operation Details	Shop Floor > Setup > Operation Detail
Substitute Components	Shop Floor > Co-Products > Define Co-Products > Substitutes

<b>Window Name</b>	<b>Navigation Path</b>
Substitute Co-Products	Shop Floor > Co-Products > Define Co-Products > Co-Product Substitutes
WIP Lot Transactions	Shop Floor > Lot Transactions > WIP Lot Transactions
WIP Lot Transactions Processor	Shop Floor > Run Requests > WIP Lot Transactions Processor
WIP Value Summary	Shop Floor > Lot Transactions > View Transactions > WIP Value Summary

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# Glossary

## A

### **alternate bill of material**

An alternate list of component items you can use to produce an assembly.

### **alternate routing**

An alternate manufacturing process you can use to produce an assembly.

### **assembly**

An item that has a bill of material. You can purchase or manufacture an assembly item.

### **asset subinventory**

Subdivision of an organization, representing either a physical area or a logical grouping of items, such as a storeroom where quantity balances are maintained for all items and values are maintained for asset items.

## B

### **bill of material**

A list of component items associated with a parent item and information about how each item relates to the parent item. Oracle Manufacturing supports standard, model, option class, and planning bills. The item information on a bill depends on the item type and bill type. The most common type of bill is a standard bill of material. A standard bill of material lists the components associated with a product or subassembly. It specifies the required quantity for each component plus other

information to control work in process, material planning, and other Oracle Manufacturing functions. Also known as product structures.

## **C**

### **cancelled job**

A discrete job you no longer want to work on. You cannot make transactions, move assemblies, or apply or update costs.

### **child lot**

A lot created as the result of a lot split operation.

### **closed job**

A discrete job that is unavailable for charges or any type of transaction. Closing a job calculates final costs and variances and creates history for the job.

### **common inventory**

Items residing in inventory or work in process that are not identified to any project.

### **completion locator**

An inventory location within a completion subinventory where you receive completed assemblies from work in process.

### **complete charges**

The job is complete and charges are allowed.

### **complete no charges**

The job is complete but charges are not allowed.

### **completion subinventory**

An inventory location at the end of your production line where you receive completed assemblies from work in process. Often this is the supply subinventory for subassemblies or finished goods inventories for final assemblies.

### **component yield**

The percent of the amount of a component you want to issue to build an assembly that actually becomes part of that assembly. Or, the amount of a component you require to build plus the amount of the component you lose or waste while building

an assembly. For example, a yield factor of 0.90 means that only 90% of the usage quantity of the component on a bill actually becomes part of the finished assembly.

**co-product**

A product that is usually manufactured together or sequentially because of product or process similarities. In Oracle Shop Floor Management you can define an item as the primary component of several end items, and the expected distribution across all the end items. The bill of material of the end items are automatically created.

**cost transaction**

The financial effect of your material, resource, overhead, job, and period example, each material quantity transaction may have several cost accounting entries, and each accounting entry is a cost transaction.

**cost type**

A set of costs for items, activities, resources, outside processing, and overheads. You may have unlimited cost types for each organization, but only one is used to record cost transactions. The Frozen Standard cost type is used for standard costing; the Average Costs type is used for Average costing. Others could be defined for simulation or temporary purposes.

**D**

**discrete job**

A production order for the manufacture of a specific (discrete) quantity of an assembly, using specific materials and resources, in a limited time. A discrete job collects the costs of production and allows you to report those costs—including variances—by job. Also known as **work order** or **assembly order**.

**discrete manufacturing**

A manufacturing environment where you build assemblies in discrete jobs or batches. Different from a repetitive production environment where you build assemblies on production or assembly lines at a daily rate.

**F**

**forward scheduling**

A scheduling technique where you specify a production start date and Oracle Manufacturing calculates a production end date using either detailed scheduling or repetitive line scheduling.

**flow routing**

A sequence of manufacturing events that you perform to manufacture an assembly. In the flow routing, these events can be grouped in processes and balanced operations. A routing consists of an item, a series of events, processes and/or operations, a operation sequences, operation effective dates, and a flow routing network. You can also perform operation time, yield and total product cycle time calculations in the flow routing.

In Oracle Shop Floor Management a flow routing is the entire routing network. It consists of a series of nodes and paths which make up the routing network, and it is referenced by the Move Lot Based Jobs window to determine which operations a job can traverse.

**I****intraoperation steps**

The particular phases within an operation. There are five intraoperation steps in Work in Process: Queue, Run, To Move, Reject, and Scrap.

**J****job status**

An Oracle Manufacturing function that lets you describe various stages in the life cycle of a discrete job and control activities that you can perform on the job.

**L****lot**

A quantity produced together and sharing the same production costs and specifications.

**lot based job**

In Oracle Shop Floor Management, a lot based job begins with any one of the possible routes and moves through a series of operations . At completion the lot is saved with a suffix assigned to the corresponding sub inventory allowing you to use the same job or lot number throughout the production process.

**lot based resource**

A resource whose usage quantity is the amount required per job or schedule.

**lot genealogy**

In Oracle Shop Floor Management you can view the historical production information of a lot including the sectors lot has moved, stocking locations, and transactions.

**lot merging**

In Oracle Shop Floor Management you can combine multiple lots into one resulting lot. The starting lots must be the same revision level for the item, attributes values, intraoperation step, department, and resources.

**lot sector**

In Oracle Shop Floor Management, a section of the entire flow of a lot, usually corresponding to the assembly of one bill level on a finished-good's bill of material. A lot sector is defined as a level of the bill, the primary component on that level, and the routing of that component.

**lot sector extension**

When using Oracle Shop Floor Management lot sectors—when lots are completed the resulting lot designation is the original lot number, followed the Job Completion Separator value, followed by the lot sector extension. This value is defined in the Sector Extensions and Item/Subinventory Association window.

**lot splitting**

In Oracle Shop Floor Management you can divide a lot into one or more resulting lots that can have different resource, material requirements, and different operations.

**M****material requirement**

An inventory item and quantity needed to build an assembly on a job or repetitive schedule. Discrete job and repetitive schedule material requirements are created based on the component items defined on the assembly's bill of materials. Issue transactions fulfill material requirements.

**move transaction**

A transaction to move assemblies from operation to operation or within an operation on a discrete job or repetitive schedule.

## **N**

### **network routing**

Network routings in Oracle Shop Floor Management comprise a collection of operations which include primary paths and alternate paths. You are able to define a separate routing for each item, at each sector. When you create routings in the Routings window, you define all possible paths.

## **O**

### **operation**

A step in a manufacturing process where you perform work on, add value to, and consume department resources for an assembly.

### **operation code**

A label that identifies a standard operation.

### **operation jumps**

In Oracle Shop Floor Management you can jump or move to operations that are not sequential.

### **operation sequence**

A number that orders operations in a routing relative to each other.

### **operation yield**

The percentage of assemblies that move to the next operation in a routing.

### **organization**

A business unit such as a plant, warehouse, division, department, and so on. Order Entry refers to organizations as warehouses on all Order Entry windows and reports.

### **outside operation**

An operation that contains outside resources and possibly internal resources as well.

### **outside processing**

Performing work on a discrete job or repetitive schedule using resources provided by a supplier.

**outside resource**

A resource provided by a supplier you include in your routings, such as supplier sourced labor or services. This includes both **PO move** and **PO receipt** resources.

**P****parent lot**

The original lot that was split into multiple lots, or child lots.

**primary path**

A primary path of a network routing used in Oracle Shop Floor Management is the routing used most often in the routing network. When the routing is defined, the primary path is outlined for planning and costing purposes and the percentage it is likely to be used. All remaining paths are classified as alternate. A primary routing in Oracle Shop Floor Management can have a primary path and alternate paths

**primary routing**

A list of the operations you most frequently perform to build a product. The primary routing is the default routing for defining a job and calculating manufacturing lead times.

**Q****quantity required**

The total quantity of a component item required to produce all the assemblies in a discrete job or repetitive schedule as determined by the usage quantity on the bill of materials, the production quantity, and the component yield.

**queue**

An intraoperation step in an operation where assemblies are waiting to be worked on. The default intraoperation step for every operation in a routing.

**R****release date**

The date when you release a discrete job or repetitive schedule to the shop floor signifying that work can begin and the discrete job or repetitive schedule becomes transactable.

**reschedule**

To modify the schedule of a discrete job. You can reschedule a discrete job by changing the start date, completion date, job quantity or any operation date on the routing. Planning can automatically reschedule jobs that are not firm based on planning requirement changes.

**resource**

Anything of value, except material and cash, required to manufacture, cost, and schedule products. Resources include people, tools, machines, labor purchased from a supplier, and physical space.

**resource requirement**

A resource and quantity needed to build an assembly on a job or repetitive schedule. Discrete job and repetitive schedule resource requirements are created based on the resource requirements specified on the assembly's routing. Resource transactions fulfill resource requirements.

**S****scrap**

An intraoperation step where you move assemblies that cannot be reworked or completed.

**scrap reversal**

Cost subtracted from the cost of the assembly due to actual scrap at the operation. Reversal ensures that the amount absorbed by the scrapped unit in the previous operations are reversed.

**shop floor status**

An Oracle Manufacturing function that lets you restrict movement of assemblies at an operation and intraoperation step within a discrete job or repetitive schedule.

**shrinkage**

Reduction of actual quantities of items in stock, in process, or in transit. The loss may be caused by scrap, theft, deterioration, or evaporation.

**standard operation**

A commonly used operation you can define as a template for use in defining future routing operations.

**start date**

The date you plan to begin production of assemblies in a discrete job.

**subassembly**

An assembly used as a component in a higher level assembly.

**subinventory**

Subdivision of an organization, representing either a physical area or a logical grouping of items, such as a storeroom or receiving dock.

**supplier**

Provider of goods or services.

**supply subinventory**

The subinventory you use as a primary source of supply to meet a specific material requirement in a discrete job or repetitive schedule. In Release 9, this is the backflush subinventory for pull material or the primary issue subinventory for push material.

**T****transaction date**

The date you enter and Oracle Manufacturing maintains for any manufacturing transaction. The date must fall within an open accounting period and be greater than the release date for transactions on a discrete job or repetitive schedule.

**U****unit of measure**

The unit that the quantity of an item is expressed.

**UOM**

See [unit of measure](#).

## **W**

### **WIP accounting class**

A set of accounts that you use to charge the production of an assembly. You assign accounting classes to discrete jobs and repetitive schedules. Each accounting class includes distribution accounts and variance accounts. Also used in cost reporting.

### **work in process**

An item in various phases of production in a manufacturing plant. This includes raw material awaiting processing up to final assemblies ready to be received into inventory.

## **Y**

### **yielded costing**

Yielded costing in Oracle Shop Floor Management uses four components in its calculation including operation yield, expected scrap absorption, scrap reversal, and yield variance. Operation yield is expressed as percentage of good units of assembly completed by an operation. This reflects the expected fraction of

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