Oracle® Shop Floor Management

User Guide, Release 11*i*

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ORACLE®

Oracle® Shop Floor Management User's Guide, Release 11i

Part No. A83717-01

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Oracle Shop Floor Management, Release 11i

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

- E-mail - appsdoc@us.oracle.com
- FAX - (650) 506-7200

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  Phone: (650) 506-7000

If you would like a reply, please give your name, address, and telephone number below.

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

Preface

Welcome to the *Oracle® Shop Floor Management User's Guide, Release 11i*.

This user's guide includes the information you need to work with Oracle Shop Floor Management effectively. It contains detailed information about the following:

- Overview and reference information
- Specific tasks you can accomplish using Oracle Shop Floor Management
- Oracle Shop Floor Management setup
- Oracle Shop Floor Management functions and features
- Oracle Shop Floor Management windows
- Oracle Shop Floor Management processes

This preface explains how this user's guide is organized and introduces other sources of information that can help you.

About This User's Guide

This guide contains overviews as well as task and reference information about Oracle Shop Floor Management. This guide includes the following chapters:

- 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.

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

- Chapter 3 describes network routings—dynamic routings based on the next operation with jumps allowed to other operations. You will learn about routing functionality and how to define them.
- Chapter 4 describes and 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.

Audience for This Guide

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

- The principles and customary practices of your business area
- Oracle Work in Process

  If you have never used Oracle Work in Process, we suggest you attend one or more of the Oracle Manufacturing training classes available through Oracle University.
- The Oracle Applications graphical user interface

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

Do Not Use Database Tools to Modify Oracle Applications Data

We STRONGLY RECOMMEND that you never use SQL*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle Applications tables, unless we tell you to do so in our guides.

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 an Oracle Applications form can update many tables at once. But when you modify Oracle Applications data using anything other than Oracle Applications forms, you might 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 forms to modify your data, Oracle Applications automatically checks that your changes are valid. Oracle Applications also keeps track of who changes information. But, 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.

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 unless we specify otherwise.

Online Documentation

All Oracle Applications documentation is available online (HTML and PDF). The technical reference guides are available in paper format only. Note that the HTML documentation is translated into over twenty languages.

The HTML version of this guide is optimized for onscreen reading, and you can use it to follow hypertext links for easy access to other HTML guides in the library. When you have an HTML window open, you can use the features on the left side of the window to navigate freely throughout all Oracle Applications documentation.

- You can use the Search feature to search by words or phrases.
- You can use the expandable menu to search for topics in the menu structure we provide. The Library option on the menu expands to show all Oracle Applications HTML documentation.

You can view HTML help in the following ways:

- From an application window, use the help icon or the help menu to open a new Web browser and display help about that window.
- Use the documentation CD.
- Use a URL provided by your system administrator.

Your HTML help may contain information that was not available when this guide was printed.

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 guides when you set up and use 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.

User Guides Related to All Products

Oracle Applications User Guide

This guide explains how to navigate the system, enter data, and query information, and introduces other basic features of the GUI available with this release of Oracle® Shop Floor Management (and any other Oracle Applications product).

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

Oracle Alert User Guide

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

Oracle Applications Implementation Wizard User Guide

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

Oracle Applications Developer's Guide

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

Oracle Applications User Interface Standards

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

Oracle Applications Demonstration User's Guide

This guide documents the functional storyline and product flows for Vision Enterprises, a fictional manufacturer of personal computers products and services. This book contains product overviews and detailed discussions and examples across each of the major product flows. Tables, illustrations, and charts summarize key flows and data elements.

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 11*i 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 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.

Reference Manuals

Oracle Technical Reference Manuals

Each technical reference manual 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.

You can order a technical reference manual for any Oracle Applications product you have licensed.

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.

Installation and System Administration

Oracle Applications Flexfields Guide

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

Oracle Applications Product Update Notes

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

Oracle Applications Upgrade Preparation Manual

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

Oracle Applications System Administrator's Guide

This manual provides planning and reference information for the Oracle Shop Floor Management System Administrator.

Other Sources

Training

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

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

Support

From on-site support to central support, our team of experienced professionals provides the help and information you need to keep 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 Oracle8 server, and your hardware and software environment.

About Oracle

Oracle Corporation develops and markets an integrated line of software products for database management, applications development, decision support and office automation, as well as Oracle Applications. Oracle Applications provides the E-business Suite, a fully integrated suite of more than 70 software modules for financial management, Internet procurement, business intelligence, supply chain management, manufacturing, project systems, human resources and sales and service management.

Oracle products are available for mainframes, minicomputers, personal computers, network computers, and personal digital assistants, enabling organizations to integrate different computers, different operating systems, different networks, and

even different database management systems, into a single, unified computing and information resource.

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

Thank You

Thank you for using Oracle Shop Floor Management and this user's guide.

We value your comments and feedback. At the end of this guide is a Reader's Comment Form you can use to explain what you like or dislike about Oracle Shop Floor Management or this user's guide. Mail your comments to the following address or call us directly at (650) 506-7000.

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

1

Shop Floor Management Overview

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

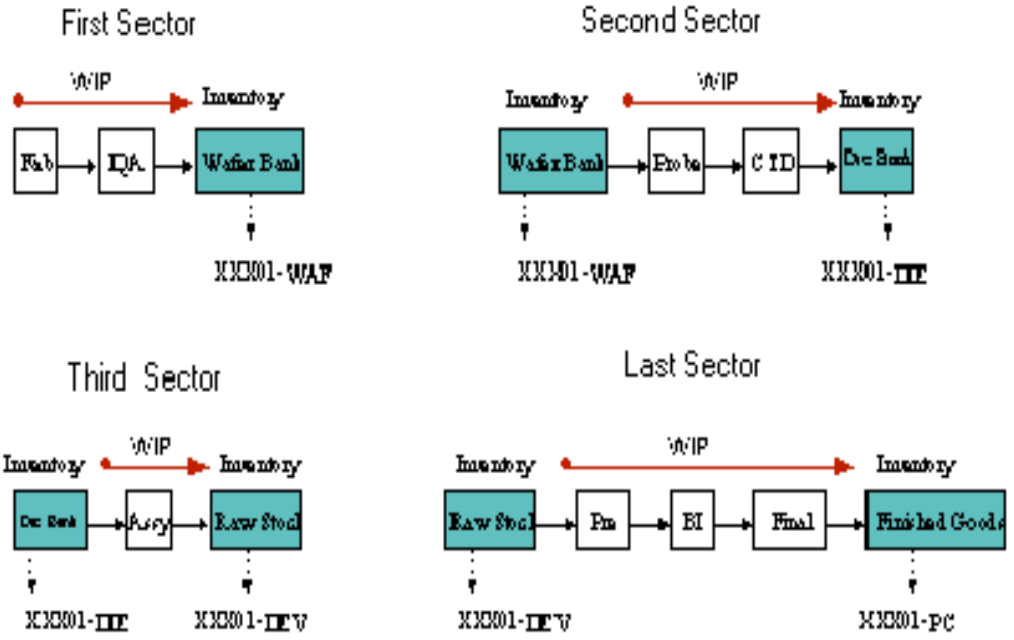
Overview of Shop Floor Management

Oracle Shop Floor Management manages complex shop floor information and bridges the gap between Oracle Manufacturing and third-party Manufacturing Execution Systems (MES) 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 between scheduling and execution. The major features include:

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

Shop Floor Management Flow

The process flow begins when a WIP Lot 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 for the primary component, and issuing the primary component from the previous sector to this new WIP Lot. 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.



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 components of that level of the bill, to differentiate between other components that might exist on the bill. Each of these primary component items has its own routing. A lot sector is defined as a combinations of the level of the bill, the primary component on that level, and the routing of that component.

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 creation. Depending on the initial operations and their results, operation flexibility is frequently required.

Flexible, or network routings enable you to define all possible operations paths that a route 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 relationships.

A routing relationship is defined as a comprehensive routing network. It enables the ability to model your shop floor, define possible rework points, or it can just be linear. 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

Each shop floor move can generate any number of transactions associated with that move. WIP Lot Move transactions use network routing, intra-operation steps, operation jumps and operation holds. 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
- Intra operations moves
- Operation jumps
- Lot splitting
- Lot merging

- Specifying resources
- 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 such as subinventory stocking points, and related lot transactions. It also enables forward and backward tracking.

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 the reverse cumulative yield at the operation rather than the shrinkage.

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

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.

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

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2

Setting Up

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

Overview of Setting Up

This section contains an overview of the steps you need 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 Wizard User's Guide*

Oracle System Administration, *Oracle Applications System Administrator's Guide*

Setting Up Oracle Workflow, *Oracle Workflow 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:

- ❏ Create your bills of material
- ❏ Define your departments
- ❏ Define your standard operations
- ❏ Create your routings
- ❏ Calculate your manufacturing lead times
- ❏ 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:

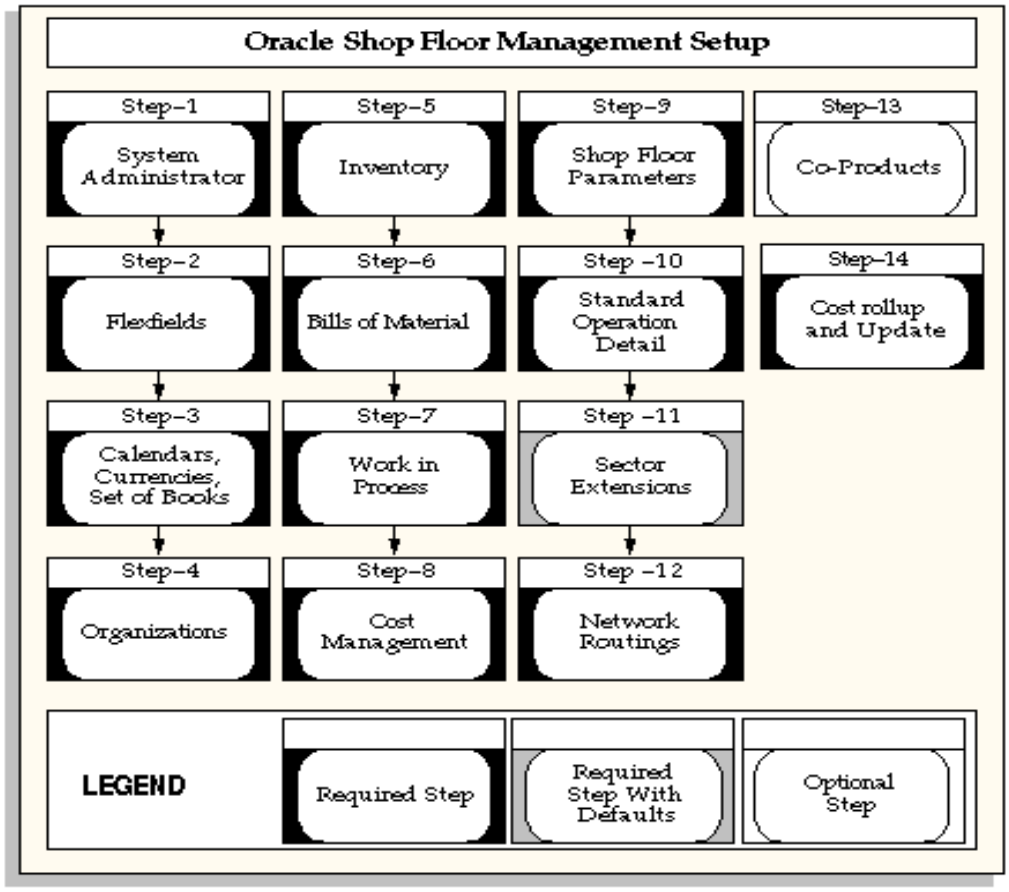
- ❏ Define WIP accounting class types
- ❏ Define WIP parameters

Setup Flowchart

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.


Oracle Shop Floor Management Setup
Step–1
System Administrator
Step–2
Flexfields
Step–3
Calendars, Currencies, Set of Books
Step–4
Organizations
Step–5
Inventory
Step–6
Bills of Material
Step–7
Work in Process
Step–8
Cost Management
Step–9
Shop Floor Parameters
Step –10
Standard Operation Detail
Step –11
Sector Extensions
Step –12
Network Routings
Step–13
Co-Products
Step–14
Cost rollup and Update
LEGEND
Required Step
Required Step With Defaults
Optional Step

Setup Checklist

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

	Step No.	Required	Step
	Step 1	Required	Set Up System Administrator
	Step 2	Required	Set Up Key Flexfields
	Step 3	Required	Set Up Calendars, Currencies, and Set of Books
	Step 4	Required	Set Up Organizations
	Step 5	Required	Set Up Oracle Inventory
	Step 6	Required	Set Up Oracle Bills of Material
	Step 7	Required	Set Up Oracle Work in Process
	Step 8	Required	Set Up Oracle Cost Management
	Step 9	Required	Define Oracle Shop Floor Management Parameters
	Step 10	Required	Define Standard Operation Details
	Step 11	Required	Define Sector Extensions
	Step 12	Required	Create Network Routings
	Step 13	Required	Define Co-Products
	Step 14	Required	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, 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. See: Oracle Human Resources User's Guide.

- 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

See: Overview of Setting Up, *Oracle Inventory User's Guide.*

Step 6: Set Up Oracle Bills of Material

This step includes defining Oracle Bills of Material components including:

- Define BOM parameters
- Define department classes
- Define your departments
- Define your standard operations
- Create your bills of material
- Create your routings
- Calculate your manufacturing lead times
- Create your workday calendar

See: Overview of Setting Up, *Oracle Bills of Material User's Guide*.

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 type used for Oracle Shop Floor Management is *Lot Based Standard Discrete*.

- Define WIP parameters

See Overview of Setting Up, *Oracle Work in Process User's Guide*.

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

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

See: Overview of Setting Up, *Oracle Cost Management User's Guide.*

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

See: Defining Parameters, on page 2-10.

Step 10: 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 2-11.

Step 11: Define Sector Extensions

Lot sectors are used to define the item numbers at each stage on the shop floor. In this step you create unique values for the lot sectors of the routing network. See: Defining Lot Sector Extensions, on page 2-12.

Step 12: Create Network Routings

In this step you create a network of routings and operations which include primary paths and alternate paths. You are able to define a separate routing for each item, at each sector. 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 which allows 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

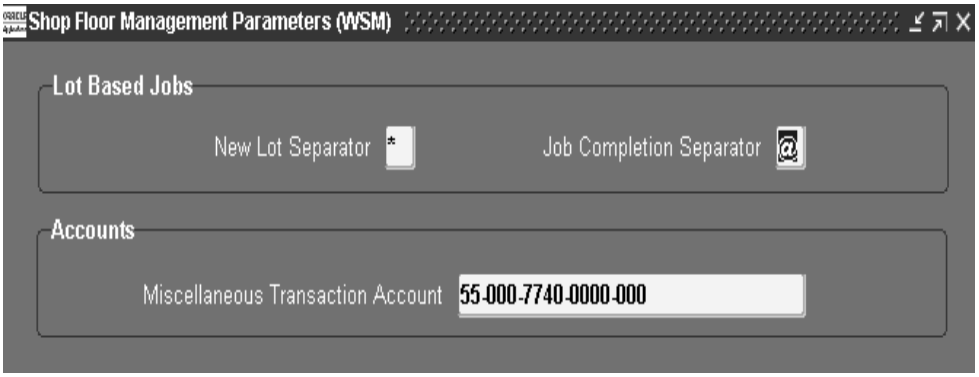
The Oracle Shop Floor Management parameters define operation movement and default values for the transactions you are creating.

◗◗ 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 characters 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 4-12, Inventory Lot Transactions, on page 4-17.

   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 4-7.



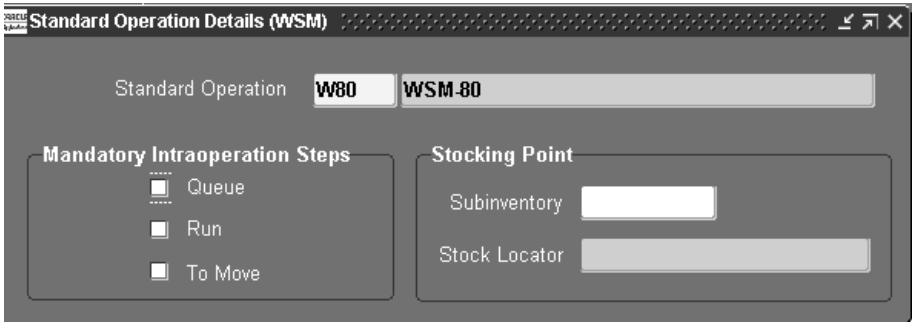
3. In the Accounts region, enter the account you want to use for miscellaneous transactions when issuing or receiving material to locations other than inventory, receiving, or work in process.
4. Save your work.

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 you want to require for lot moves. See: Intraoperation Steps, *Oracle Work in Process User's Guide*.
4. In the Stocking Point region—Subinventory field, select the location that completed material from this operation is to be placed.

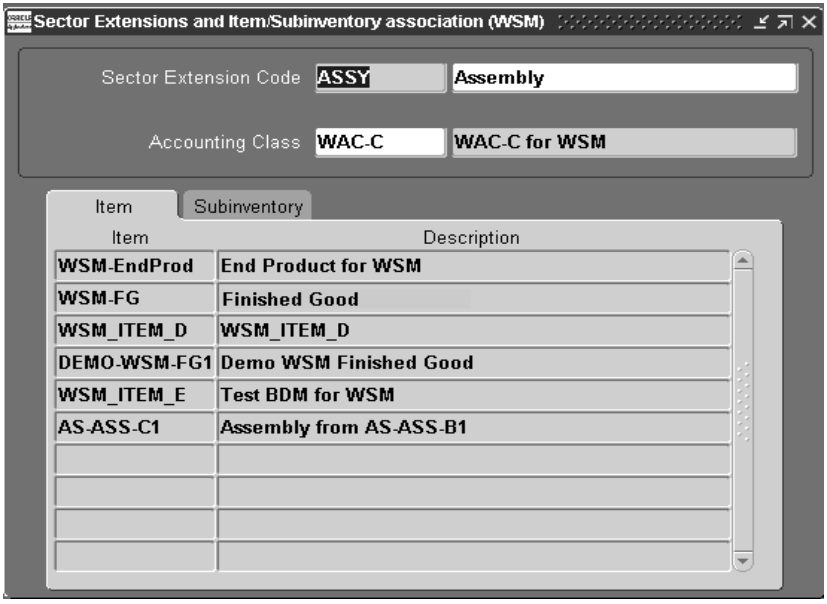
   If this subinvenory is tied to a locator, it will automatically display in the Stock Locator field.
5. Save your work.

Defining 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 defined as a level of the bill, the primary component on that level, and the routing of that component.

To define the Lot sector extension codes:

1. Navigate to the Sector Extensions and Item/Subinventory Association window.
2. Enter a unique value in the Sector Extension Code field, and a description.



3. Select an accounting class from the Accounting Class Code list of values window.
4. In the Item tab, select the item numbers you want to assign to this lot sector.
5. In the Subinventory tab, select the subinventory location for the items listed in this window. See: Assigning Items to a Subinventory, *Oracle Inventory User's Guide*.
6. Save your work.

Profile Option

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.

Profile Option	User	System Administrator				Requirements	
	User	User	Resp	App	Site	Required?	Default Value
WSM: Allow Operation Jumps	¸	¸	¸	¸	¸	Required	No
Key	¸ You can update the profile option. - You can view the profile option value but you cannot 0 change it. You cannot view or change the profile option value.						

3

Network Routings

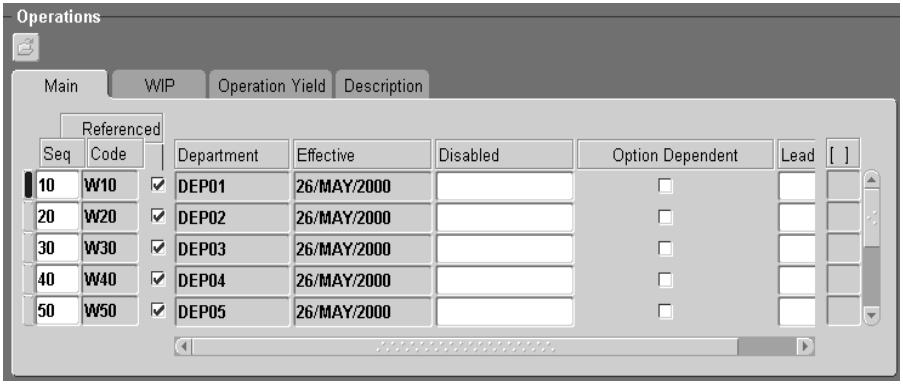
This chapter describes network routings used in Oracle Shop Floor Manufacturing including the following topics:

Overview of Network Routings

Network routings in Oracle Shop Floor Management comprise a collection of routing 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.

Network routing 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 at creation. Depending on the initial operations and their results, operation flexibility is often required.

You define two major aspects to create this functionality. First, all the possible allowable operation paths 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 a tab of this window.

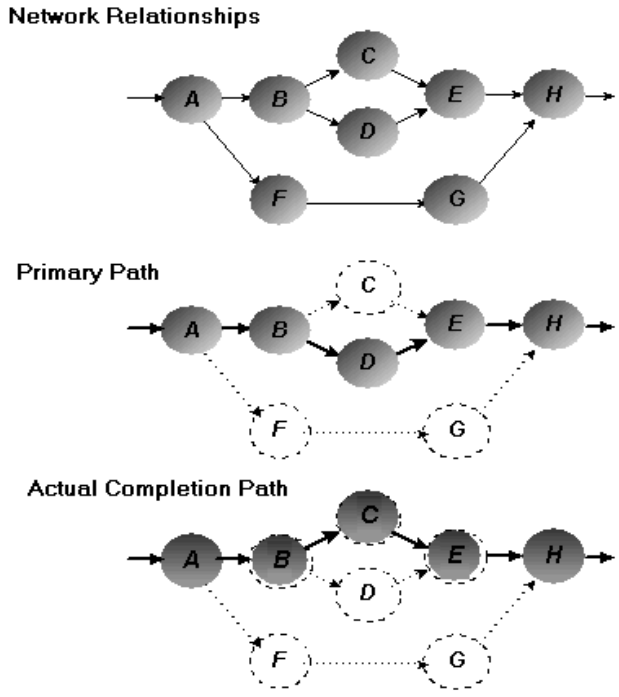


Attention: Oracle Shop Floor Management only uses standard operations in routings.

Next, the network relationships between the different operations are defined in the Routing Network window. In this window 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.

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 Relationships—that is, the entire network of the routing and all operations that the WIP Lot can use.



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 saved as the primary path or any of the other valid

paths define in the network relationship. 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.

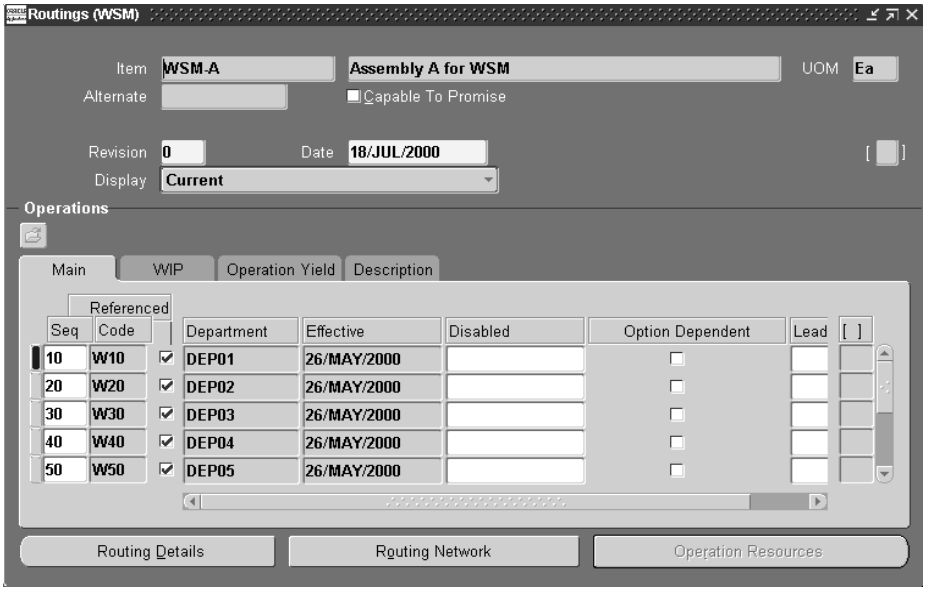
Creating a Network Routing

◗◗ 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 item number, revision, display option, operation sequence, standard operation code, department, and date ranges, see: Creating a Routing, *Oracle Bills of Material User's Guide.*

   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, Operation sequencing is defined in the Routing Network window.



Attention: Oracle Shop Floor Management only uses standard operations in routings.

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 with the assembly item number and alternate number displaying.

> **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.

5. In the first row, select operation sequence information and enter the values From and To in the Code fields.

6. In the Link Type field, choose either primary or alternate routing.

   Primary indicates that this is a routing network 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.

7. In the Planning % field, enter the percentage that this routing is used.

   Percentages for all the operations, originating from any node in the routing, must total 100 percent.

   Note: Lot based jobs are not considered in the Oracle Master Scheduling/MRP, Oracle Supply Chain Planning, and Oracle Advanced Planning and Scheduling applications.

8. 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.

9. Save your work.

Modifying Network Routings

You can modify network routing relationships in several different ways:

◗◗ To add or modify a network routing relationship:

1. Navigate to the Routings window in the Oracle Shop Floor Management menu.
2. If you are adding a new standard 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 relationships.

5. Modify relationships per your new requirements. Relationships 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 relationship:

1. Navigate to the Routing Network window.
2. Select the routing relationship 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 Guid*e.
3. Save your work.

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

◗◗ To import operations in a network routing:

- ❏ The Routing Open Interface program enables you to import routing information Imported routings included 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*

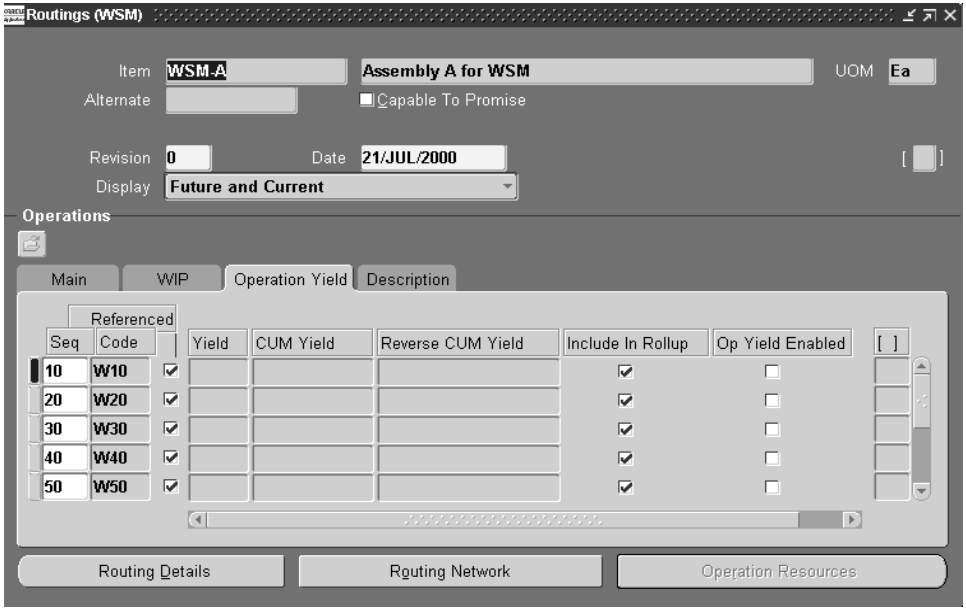
Completion Subinventory and Locator, *Oracle Bills of Material User's Guide*

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, standard operation code, department, and date ranges, see: Creating a Routing, *Oracle Bills of Material User's Guide.*



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.

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

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.

4

Lot Transactions

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

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 component. The WIP lot is created and released, moves through a series of operations, and is completed into an inventory location, where it sits as an Inventory lot. Upon completion the lot is saved with a suffix assigned to the corresponding sub inventory. In this manner you can continue to use the same job or lot number throughout the production process where the part number changes with each sector evolution. 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 component of the next bill level (the next sector), and issuing the primary component 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.

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

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 WIP 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 4-20.

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Suggestion: These jobs are created only for the first sector where raw components are used and inventory lots for these raw components do not yet exist. If some inventory lots for these raw components exist, then you need to use the Lot Creation window for the first sector.

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

◗◗. To create lot based jobs:

1. Navigate to the Lot Based Jobs window.

   The Find Lot Based Jobs window displays.

2. If you are searching for an existing lot, 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.

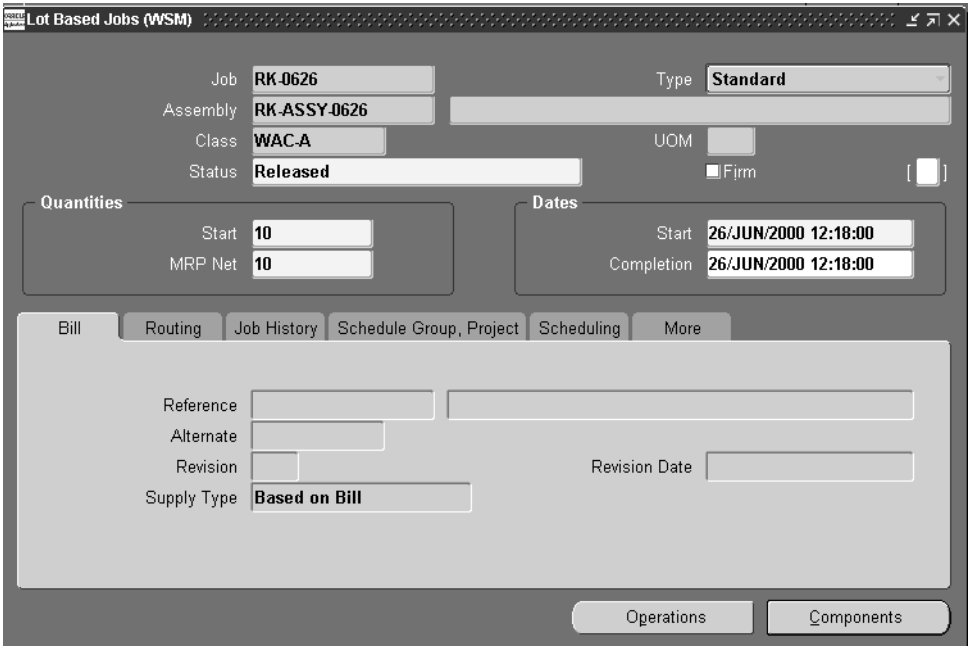
3. If you are creating a new lot, Choose New (A).

   The Lot Based Jobs window displays.

4. 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.

5. Select the job assembly in the Assembly field.



6. 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.

7. The Firm check box will be used in a future release if you want 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, Oracle Supply Chain Planning, and Oracle Advanced Planning and Scheduling applications.

8. In the Quantities region, enter the quantity of the lot in the Start field.

   When you enter a start quantity for jobs with bills and routings, the component material requirements, department schedules for first and last operation, resource load, and job start and end dates are all determined automatically.

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

   Lot based jobs are not considered in the Oracle Master Scheduling/MRP, Oracle Supply Chain Planning, and Oracle Advanced Planning and Scheduling, applications.

10. Save your work.

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.
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.
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 manufacturing lead time of the assembly.

◗◗. To view operations:

❑ Choose Operations. The Operations window displays showing all the operations of this job.

◗◗. To view component requirements:

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

Overview of Lot Moves

WIP Lot Move transactions invoke network routing, intra-operation steps at routing level, operation jumps, and operation holds. You can capture attributes, specify resources, and allow inter sector moves. At each move, the Move Lot Based Jobs window stores information on the traversed operations, thereby keeping a running history of the all the operations for a particular job.

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 lot is automatically renamed using the lot sector extension, see: Defining Lot Sector Extensions, on page 2-12.

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 automatically calculated by the system.

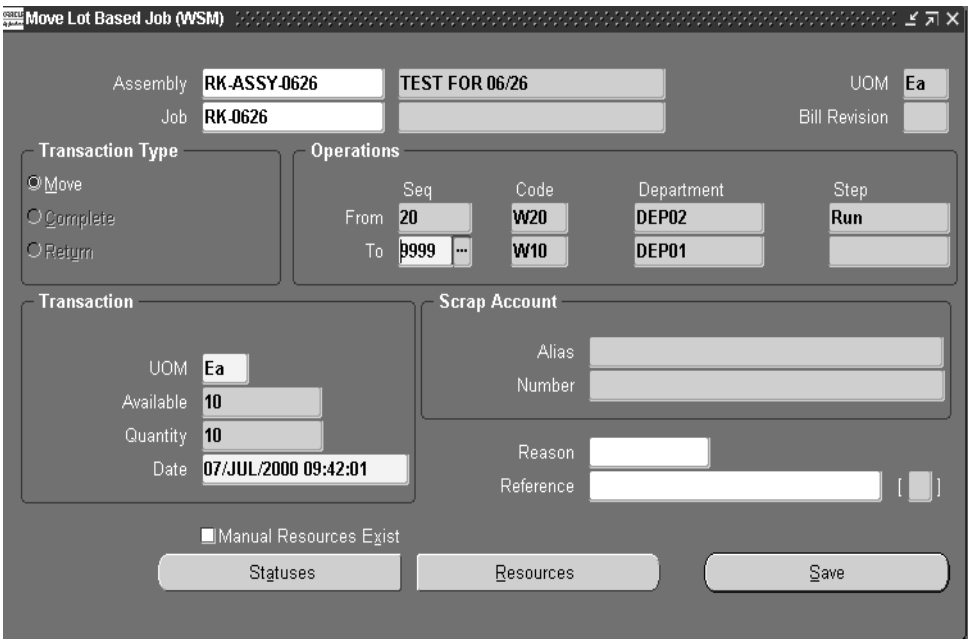
Creating Lot Move Transactions

Inside 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*.
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.



3. 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 at the last operation and last intraoperation step. See: Move Transaction Types, *Oracle Work in Process User's Guide*.

4. 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 relationships. However, you can jump to any standard operation not defined in the network routing. See: Operation Jumps, on page 4-10.

Note: Backward movement is not currently supported.

5. In the Transaction region, you are allowed to change values for quantity and available quantity only for scrap transactions.

   These values are calculated after the transaction for move transactions.

6. If you are moving material to scrap in this transaction, alias information automatically displays the 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.

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

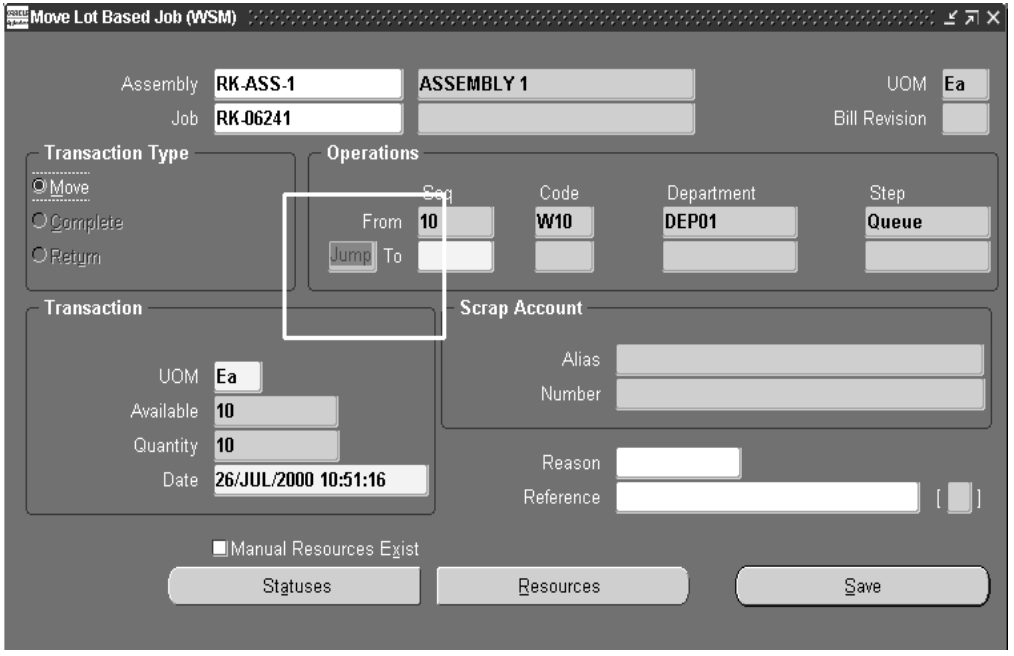
The operation jump functionality enables you to skip operations in a routing— or jump to any standard operation not defined in the network routing relationship. In order to use this functionality, the Oracle Shop Floor Management profile option must be set to yes. See: Profile Option, on page 2-13.

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.
3. From the Tools menu, select Toggle Jumping.

   In the Operations region, the word Jump displays in the color red on the Move Lot Based Jobs window.



4. In the To row, enter any operation sequence number which is greater than the From operation sequence number.
5. Select an operation code and the step for the standard operation to which you want to jump.
6. Create remaining transactions as described in Creating Lot Move Transactions, on page 4-7.

   After completing the jump operation, you can return to any of the standard operations defined in the original routing to complete the balance of operations.
7. 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.

Note: In instances where material is moved to the operation by outside processing, you must receive the material before splitting the quantity.

- *Lot Merging*: combine multiple lots 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 equivalent intraoperation step with the same department and resources.
- *Translate:* 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*: merge 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 costs allocated to the starting job are reallocated to the resulting jobs.

New lot numbers are automatically assigned to the child lots of a split transaction. 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 assemblies for the new parent lot are automatically moved to the current operation.

Lot Bonus: You can increment the quantity of material in a given lot, 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 or scrap account for the transaction.

Lot Translating: One product can be translated into another product—that is, change the item, quantity, or revision of an existing lot and move it to another assembly. There are not costing implications in this transaction. You are also able to switch to an alternate routing on the same operation step.

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.

Creating WIP Lot Transactions

◗◗ To create WIP lot transactions:

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

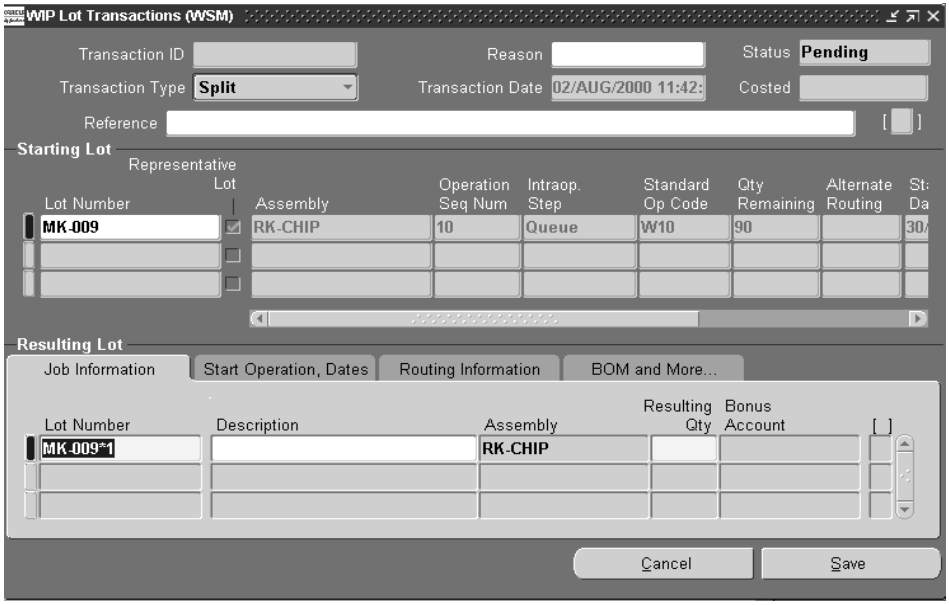
   Your choices are Bonus, Merge, Split, Update Assembly, Update Lot Name, Update Quantity, or Update Routing. See: WIP Lot Transactions, on page 4-12.

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

   The transaction date for this transaction automatically displays as today's date.

   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.



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, and quantity. The bonus account number is defaulted from the routing.
4. In the Start Operation, Dates tab; select the accounting class from the list of values. You can start a bonus lot at any operation, 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 stop, standard 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—serve as a template—for the other lots you are merging.

   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.

   The lot description, parent assembly number are 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 you want to split.

   The lot details display: assembly number, operation sequence number, intra-operation step, standard 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 2-10. When a lot is split, the new resulting lot designation is the original lot number, followed by the value set in the parameter, followed by sequential numbering.

The lot description, parent assembly number are 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 that you want 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.

Inventory Lot Transactions

Inventory Lot transactions allow 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 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. When a lot is split into multiple children, the costs allocated to the starting job are reallocated to the resulting jobs.

New lot numbers are automatically assigned to the child lots of a split transaction. 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 assemblies for the new parent lot are automatically moved to the current operation.

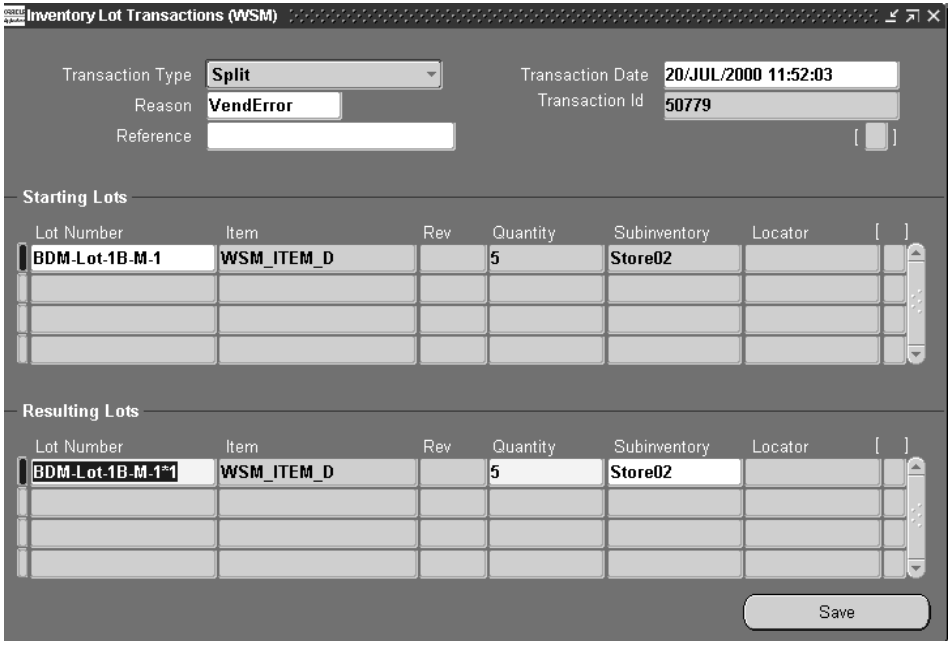
Lot Translating: One product can be translated into another product—that is, change the item, quantity, or revision of an existing lot and move it to another assembly. There are not costing implications in this transaction. You are also able to switch to an alternate routing on the same operation step.

Lot Transferring: A Lot an 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 4-17.
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.



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

   The lot details display: item number, routing revision level, 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.

7. For split transactions, select the lot you want 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 2-10. 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. Enter the quantity of the new lot in the Quantity field. You can also change the subinventory location.

8. For merge transactions, select the lots you want 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 2-10. 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—the lot number is the same value. You can change the item number in the Item field, and the subinventory location.

10. For lot transferring transactions, select the lot you want 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

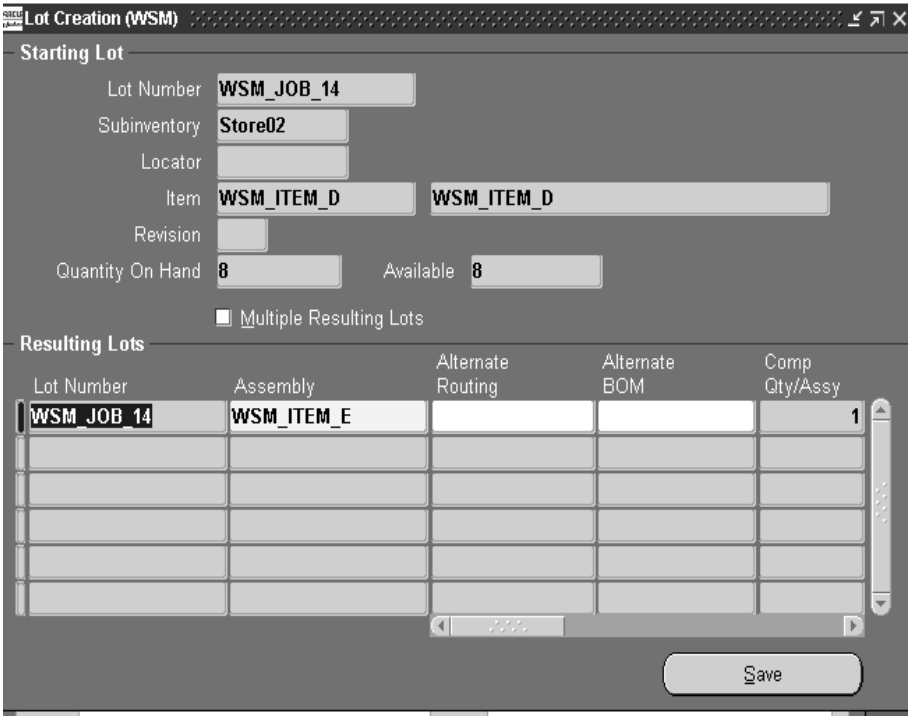
After you have moved the lot from first sector into subinventory, the next step is to define the other sectors in the process.

◗◗. To create lots on the shop floor:

1. Navigate to the Lot Creation window.
2. Select a lot number in the Lot Number field.

   Information displays for subinventory location, locator number, item number and description, revision number, quantity on hand, and quantity available to use in the manufacturing process.
3. Check the Multiple Resulting Lot check box if you want to create multiple lots from the starting lot.

   The resulting lot designation is the original lot number, followed by the New Lot Separator value, followed by sequential numbering.



4. In the Resulting Lots region, you can change information in the following fields: Alternate Routing, Alternate Assembly, Completion Subinventory, Accounting Class, Start Date, and Completion Date.

   Information displays for Completed Quantity Assembly and Assembly Quantity.

5. Save your work.

5

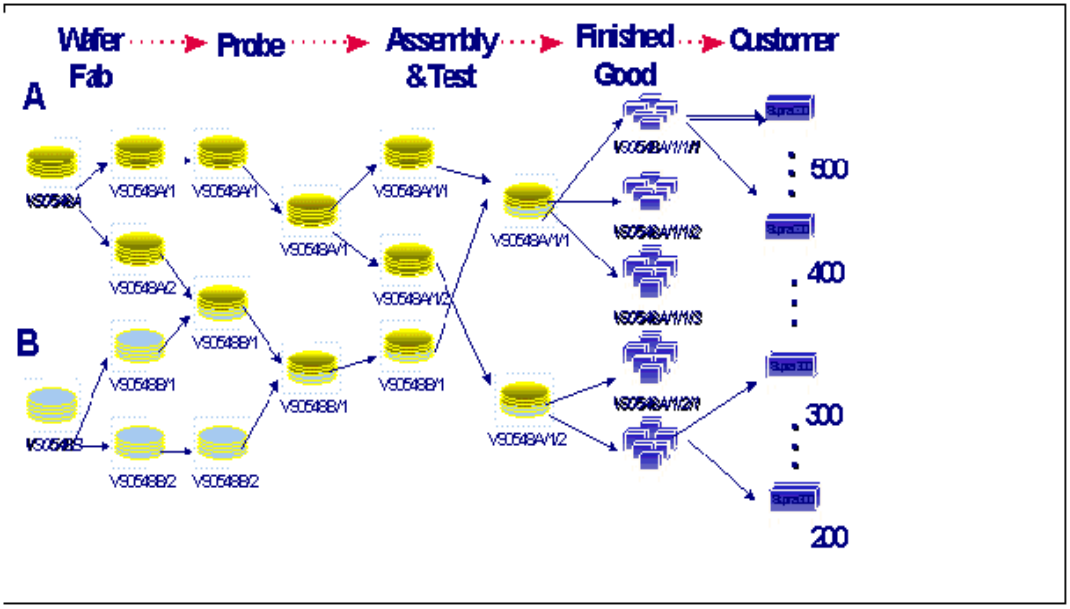
Lot Genealogy

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

Overview of Lot Genealogy

Lot genealogy allows 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. It is also capable of displaying information across all organizations. 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



Displaying Genealogy and Where-Used Views

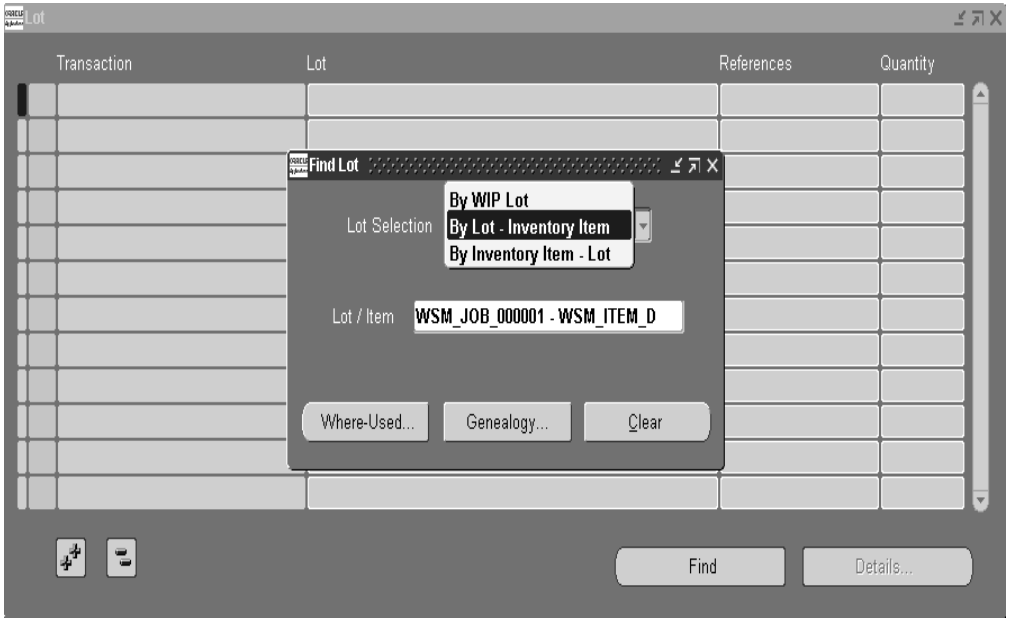
To view lots by genealogy or where-used:

1. Navigate to the lot Genealogy, Find Lot window.
2. In the Lot Selection field, select how you want to search for this lot. Your choices are:

   By WIP lot

   By Lot-Inventory Item

   By Inventory Item-Lot
3. Enter a lot number or inventory item number.



4. Choose either Where-Used or Genealogy.

   The Lot window displays with the designated view displaying in the window title.

When you select the Where Used view, information is listed in order of current to oldest—from top to bottom of the list. If you select Genealogy, the listing formatted in oldest to current format, from top to bottom.

The first record of the query is the parent lot, the records following are the children and grandchildren of this lot. You can expand or collapse levels by choosing the Expand (++) or Collapse (- -) at the bottom of the window.

The information displayed on this window is described in the following fields:

Transaction: indicates the type of event that took place at that particular line in the genealogy path—for example— WIP Split, Merge, Subinventory Transfer, or Inventory Split.

Lot: indicates the part number or assembly number of the lot which has a role in the genealogy at that point.

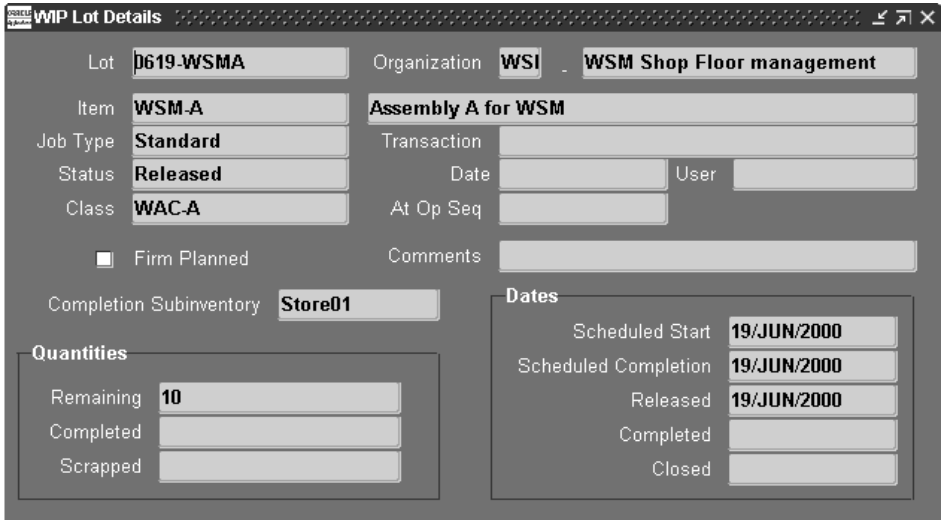
References: any descriptive text you entered concerning the details of the transaction event.

Quantity: quantity of the lot that was transacted at that point of the genealogy

5. Choose Find if you want to do another search.
6. Choose Details to display the detail window of the transaction you want to view. Depending on the lot type, either the WIP Lot Details or Inventory Lot Details window displays.

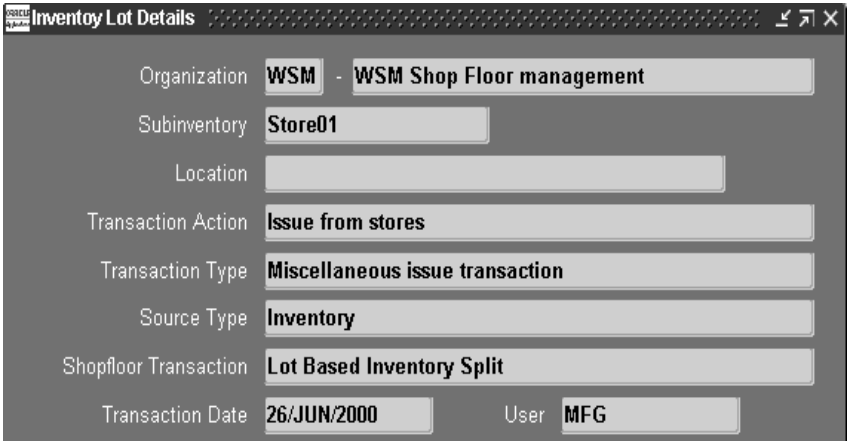
WIP Lot Details Window

The WIP Lot Details window displays transaction details about a particular lot. In the first region, the name of the lot based job displays along with all the information set in the Lot based Jobs window including: organization, item number, parent assembly, subinventory location and the current status of the lot. Depending on the status of the WIP lot and the lot based job, various fields in the Quantities and Dates regions show transaction information. For example, lot based jobs that are open do not display competition information but do show operation sequence information.



Inventory Lot Details Window

The Inventory Lot Details window displays transaction details about a particular lot including organization, subinventory location, and various information about the transactions that moved this lot into inventory. For example, if the transaction action is an issue, the type of issue displays along with the source and the user.



6

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

Oracle Shop Floor Management co-products extend standard Oracle Bills of Material definitions by creating primary components in order to generate several end items. When you enter information in the co-products window, the bills of material of the end items are automatically created. Co-product functionality enables you to:

- 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 division for the co-products.
- Split lots into their respective co-products.

Defining Co-Products

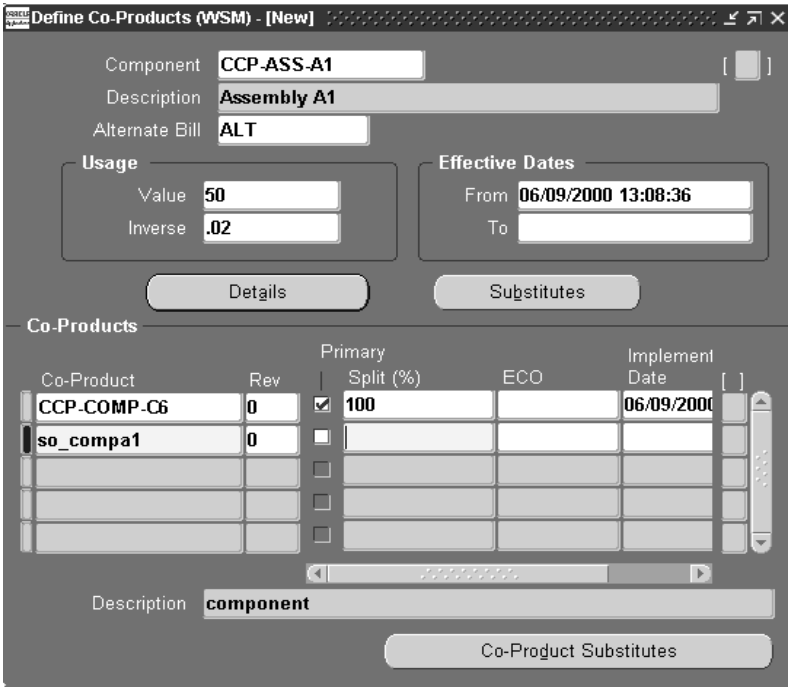
◗◗ To define Co-products:

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

   The assembly's description and, if existing, alternate item number displays.
3. In the Usage region, enter data in the Value and Inverse fields in order to define the quantity used.

   Value is the quantity of the component needed to create the assembly, that is, the quantity of the component needed for each of the co-products. The Inverse is automatically calculated. It is contrasting quantity—one quantity of the component will make that quantity of the co-product.
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 6-4.



5. You can view information in the Component Details window.

   This window enables you to view Bill of Material information for the component. See Component Details Window, on page 6-5.

6. In the Co-Products region, enter the item number in the Co-Products field.

   The item number's Revision level and Engineering Change Number displays.

7. If this is the primary co-product, check the Primary check box.

   There should be only one primary co-product for a component. Non primary co-products are set up as common bills of material pointing to the primary co-product's bill. The primary co-product's bill may be an alternate or a primary bill.

8. Enter the percentage of the quantity used of this co-product in the Split % field.

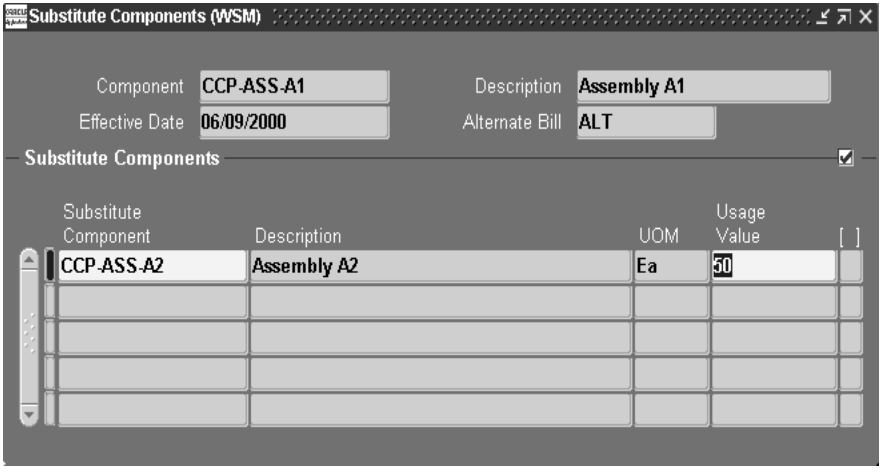
   This is a value between 0 and 100, the split percentage of all co-product lines must sum to 100.

9. If this assembly is to be revised, enter the Engineering Change Notice number and date in the ECN and Implementation Date fields respectively.
10. In the Description field, descriptive information for the co-product item is displayed.
11. Save your work.

Substitute Components Window

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. Information default displays component item number, description, effective date, 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.

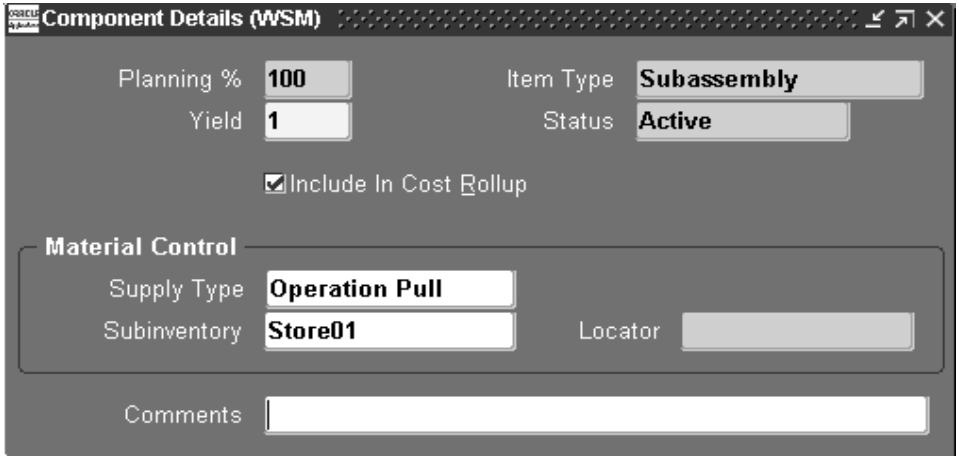
   The Define Co-Products window displays again.

Component Details Window

This window allows you to enter corresponding Bill of Material information for the component.

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 displays for the Planning Percent, Yield, Item Type, Status, and Include in Cost Rollup fields and check box.



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.

7

Costing in Oracle Shop Floor Management

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

Overview of Operation Yields

Many businesses, such as the semiconductor industry, need to account cost yielded from expected scrap at each operation of a job. The percentage expected to be scrapped at an operation in the job is called operation yield. Operation yielded cost is included to the cost of job as it progresses through different operations on the shop floor. Any variance between expected scrap absorption and actual scrap absorption is tracked.

Oracle Shop Floor Management uses the standard costing method and provides additional costing functionality including:

- *Yield Definitions* - yields are defined at the operations level. This enables you to compute cumulative yield at every operation based on the operation yields.
- *Cost Rollup Integration* - Cost Rollup considers material, overhead, and resource costs using the reverse cumulative yield at the operation rather than the shrinkage. Scrap accounting considers the operation yield while computing scrap costs.
- Standard Cost Update Integration

Operation yield costing allows you to include operation yields in the cost rollup of an assembly. When defining an item's routing, you can enter expected operation yields at each operation on that routing, and specify whether that operation's yield is to be rolled up into the cumulative yield. During a lot's progression on the shop floor, operation yield cost is absorbed into the cost of the lot. Any variance between expected scrap absorption and actual scrap absorption is tracked through a separate variance account.

Oracle Bills of Material defines and maintains component yields at the component level on the bill of material for an assembly. Oracle Shop Floor Management defines and maintains component yield collection and tracking at the operation level. You define these values on the Shop Floor Routings window in the Operation Yield tab, see: Defining Operation Yield Values on Routings, on page 3-9. This yield is created as the assembly progresses through the routing. Similarly to shrinkage defined in Oracle Applications, component yields are calculated at different operations instead of the assembly completion. When the entire shrinkage is calculated at the last operation, the computation can be inaccurate for resource and component usage on the previous operations when there are a large numbers of operations in the routing. Consequently, the shrinkage needs to be accounted for at every operation where the assembly experiences yield.

Oracle Shop Floor Management includes the following features:

- You can 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*

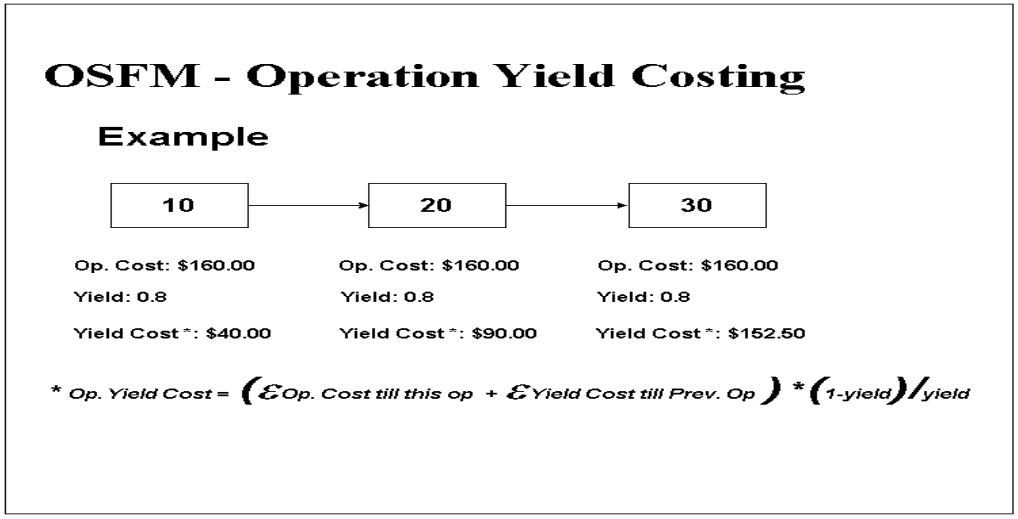
Bills and Cost Rollups, *Oracle Cost Management User's Guide*

Defining Operation Yield Values on Routings, on page 3-9

Yielded Costing Definition

Oracle Cost Management employs five standard cost elements: material, material on hand, residual, residual on hand, and outside processing. See: Cost Elements, *Oracle Cost Management User's Guide.*

Oracle Shop Floor Management adds the yielded costing feature which is the cost of the expected yield to the operation. Each task, or operation within each task, has a shrinkage cost associated with it—that shrinkage cost is added to the operation. All accrued operations' yielded costing are summed at job completion for the total Costing for Yielded Absorption. The expected yield costs are components to the actual yield cost, and the difference is charged to a job close variance account.



Yielded Costing Components

The components for yielded costing are defined in the following descriptions and calculations:

Operation Yield

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

Expected Scrap Absorption

The expected cost for parts that cannot be reworked or completed:

Expected Scrap per unit = Total cost per unit up to the current operation x 1 - operation.yield / operation yield

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:

Expected scrap per unit up to the previous operation x number of units actually scrapped

Note: Scrap must be charged to the actual scrap account defined for the department.

Yield Variance

The difference in the cost of the operation due to expected yield and actual scrap at the operation.

Lot Based Jobs Transaction Costing

There are seven types of 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 allows 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: split, merge, bonus, and update quantity.

Splitting Lots

When you divide a single parent lot into multiple child lots, the cost of materials and resources issued to the parent lot is reallocated to the child lots, based on quantity ratios. The resulting lots are created with new bill and routing information from the operation sequence number at the time of transaction and forward.

All transactions for material, resource, and ovehead charges are calculated prior the split for the parent lot.

At the time of a split, a single transaction is created which will adjust the net balance of the parent lot and resulting lots with the appropriate balance. This transaction is to create starting correct valuation for all split lots and has correct elemental cost distribution.

All operations prior to and including the splitting operation are copied to all resulting lots.

Resources are charged on the parent lot at or prior to the splitting operation after the lot split. These charges are spread across resulting lots.

There may exist uncosted split transaction when the period close program executes. The period close program checks for any uncosted split lots. After resubmitting the transactions for costing, the period can be closed.

In case multiple splits occur on a lot, the split cost is calculated in the order the split occurs.

Split the valuation from the parent lot into resulting lots.

Merging Lots

When combining several lots into a single existing lot, the cost of materials and resources is reallocated to the representative lot.

Bonus Lots

Merging scrapped quantities creates a new lot. Starting lots may be closed. Cost of materials and resources is not be reallocated to the resulting lot. The standard cost of the assembly at that operation is credited to the bonus account. That cost is debited to the job's cost.

A

Windows and Navigator Paths

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

Windows and Navigator Paths

For windows and detailed information described in other manuals:

See...	Refer to this manual for a complete form description
BOM	Oracle Bill of Materials User's Guide
User	Oracle Application User's Guide
WIP	Oracle Work in Process User's Guide

Brackets ([ ]) indicate a button.

Window Name	Navigation Path
Alternates	Shop Floor > Routings > Alternates BOM > Setup > Alternates
Component Details	Shop Floor > Co-Products > Define Co-Products > Details
Departments	Shop Floor > Routings > Departments BOM > Routings > Departments
Lot Based Jobs	Shop Floor >Lot Based Jobs > Find Lot Based Jobs
Lot Based Jobs Summary	Shop Floor >Lot Based Jobs > Find Lot Based Jobs > Find
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 Lot > Genealogy > Details
Lot (Where-Used)	Shop Floor > Lot Genealogy > Find Lot > Where-Used > Details
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

Window Name	Navigation Path
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
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
Substitute Co-Products	Shop Floor > Co-Products > Define Co-Products > Co-Product Substitutes
View Shop Floor Statuses	
WIP Lot Details	Shop Floor > Lot Genealogy > Find Lot > Lot Genealogy > Details
WIP Lot Transactions	Shop Floor > Lot Transactions > WIP Lot Transactions

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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