Oracle Manufacturing - Create Routings Release 11i

Student Guide

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ORACLE®

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Technical Contributors and Reviewers

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Preface

Profile

Before You Begin This Course

Before you begin this course, you should have the following qualifications:

- Thorough knowledge of *Oracle Bills of Material*

- Working experience with *Oracle Bills of Material*

Prerequisites

- There are no prerequisites for this course.

How This Course Is Organized

Oracle Manufacturing – Create Routings is an instructor-led course featuring lecture and hands-on exercises. Online demonstrations and written practice sessions reinforce the concepts and skills introduced.

Related Publications

Oracle Publications

Title   **Part Number**

None

Additional Publications
- System release bulletins
- Installation and user's guides
- *Read.me* files
- *Oracle Magazine*

Typographic Conventions

Typographic Conventions in Text

Convention	Element	Example
Bold italic	Glossary term (if there is a glossary)	The *algorithm* inserts the new key.
Caps and lowercase	Buttons, check boxes, triggers, windows	Click the Executable button. Select the Can't Delete Card check box. Assign a When-Validate-Item trigger to the ORD block. Open the Master Schedule window.
Courier new, case sensitive (default is lowercase)	Code output, directory names, filenames, passwords, pathnames, URLs, user input, usernames	Code output: `debug.set ('I", 300);` Directory: `bin` (DOS), `$FMHOME` (UNIX) Filename: Locate the `init.ora` file. Password: User `tiger` as your password. Pathname: Open `c:\my_docs\projects` URL: Go to `http://www.oracle.com` User input: Enter `300` Username: Log on as `scott`
Initial cap	Graphics labels (unless the term is a proper noun)	Customer address (*but* Oracle Payables)
Italic	Emphasized words and phrases, titles of books and courses, variables	Do *not* save changes to the database. For further information, see *Oracle7 Server SQL Language Reference Manual.* Enter `user_id@us.oracle.com`, where *user_id* is the name of the user.
Quotation marks	Interface elements with long names that have only initial caps; lesson and chapter titles in cross-references	Select "Include a reusable module component" and click Finish. This subject is covered in Unit II, Lesson 3, "Working with Objects."
Uppercase	SQL column names, commands, functions, schemas, table names	Use the SELECT command to view information stored in the LAST_NAME column of the EMP table.

Convention	Element	Example
Arrow	Menu paths	Select File—> Save.

Brackets	Key names	Press [Enter].
Commas	Key sequences	Press and release keys one at a time: [Alternate], [F], [D]
Plus signs	Key combinations	Press and hold these keys simultaneously: [Ctrl]+[Alt]+[Del]

Typographic Conventions in Code

Convention	Element	Example
Caps and lowercase	Oracle Forms triggers	`When-Validate-Item`
Lowercase	Column names, table names	`SELECT last_name` `FROM s_emp;`
	Passwords	`DROP USER scott` `IDENTIFIED BY tiger;`

	PL/SQL objects	`OG_ACTIVATE_LAYER`
		`   (OG_GET_LAYER`
		`('prod_pie_layer'))`

Lowercase italic	Syntax variables	`CREATE ROLE role`
Uppercase	SQL commands and functions	`SELECT userid` `FROM emp;`

Typographic Conventions in Navigation Paths

This course uses simplified navigation paths, such as the following example, to direct you through Oracle Applications.

(N) Invoice > Entry > Invoice Batches Summary (M) Query > Find (B) Approve

This simplified path translates to the following:

1.   (N) From the Navigator window, select Invoice > Entry > Invoice Batches Summary.

2.   (M) From the menu, select Query > Find.

3.   (B) Click the Approve button.

Notations :

(N) = Navigator

(M) = Menu

(T) = Tab

(I) = Icon

(H) = Hyperlink

(B) = Button

Typographical Conventions in Help System Paths

This course uses a "navigation path" convention to represent actions you perform to find pertinent information in the Oracle Applications Help System.

The following help navigation path, for example—

> (Help) General Ledger > Journals > Enter Journals

—represents the following sequence of actions:

1. In the navigation frame of the help system window, expand the General Ledger entry.

2. Under the General Ledger entry, expand Journals.

3. Under Journals, select Enter Journals.

4. Review the Enter Journals topic that appears in the document frame of the help system window.

Getting Help

Oracle Applications provides you with a complete online help facility.

Whenever you need assistance, simply choose an item from the Help menu to pinpoint the type of information you want.

To display help for a current window:

1. Choose Window Help from the Help menu, click the Help button on the toolbar, or hold down the Control key and type 'h'.

   A web browser window appears, containing search and navigation frames on the left, and a frame that displays help documents on the right.

   The document frame provides information on the window containing the cursor. The navigation frame displays the top-level topics for your responsibility, arranged in a tree control.

2. If the document frame contains a list of topics associated with the window, click on a topic of interest to display more detailed information.

3. You can navigate to other topics of interest in the help system, or choose Close from your web browser's File menu to close help.

Searching for Help

You can perform a search to find the Oracle Applications help information you want. Simply enter your query in the text field located in the top-left frame of the browser window when viewing help, then click the adjacent Find button.

A list of titles, ranked by relevance and linked to the documents in question, is returned from your search in the right-hand document frame. Click on whichever title seems to best answer your needs to display the complete document in this frame. If the document doesn't fully answer your questions, use your browser's Back button to return to the list of titles and try another.

Oracle Manufacturing - Create Routings Release 11i

Chapter 1

Oracle Manufacturing - Create Routings Release 11i

Oracle Engineering > Resources

Oracle Bills of Material > Resources

Oracle Engineering > Resource Costs

Oracle Bills of Material > Resource Costs

Oracle Engineering > Resource Overhead Associations

Oracle Bills of Material > Resource Overhead Associations

Oracle Bills of Material > Quick Codes (CRP_RESOURCE_GROUPS)

Oracle Bills of Material > Simulation Sets

Oracle Bills of Material > Department Classes

Oracle Bills of Material > Location

Oracle Engineering > Departments

Oracle Bills of Material > Departments

Oracle Engineering > Overhead Rates

Oracle Bills of Material > Overhead Rates

Oracle Engineering > Resources

Oracle Bills of Material > Resources

Oracle Engineering > Shifts

Oracle Bills of Material > Shifts

Oracle Engineering > Capacity Changes

Oracle Bills of Material > Capacity Changes

Oracle Engineering > Engineering Routings

Oracle Bills of Material > Routings

Oracle Engineering > Routing Revisions

Oracle Bills of Material > Routing Revisions

Oracle Engineering > Viewing Routings

Oracle Bills of Material > Viewing Routings

Oracle Engineering > Reports

Oracle Bills of Material > Reports

Oracle Engineering > Operation Resources

Oracle Bills of Material > Operation Resources

Oracle Engineering > Standard Operations

Oracle Bills of Material > Standard Operations

Oracle Engineering > Resources

Oracle Bills of Material > Resources

Oracle Engineering > Resource WhereUsed

Oracle Bills of Material > Resource WhereUsed

Oracle Engineering > Attachments

Oracle Bills of Material > Attachments

Oracle Engineering > Operation Documents

Oracle Bills of Material > Operation Documents

Oracle Engineering > Common Routing

Oracle Bills of Material > Common Routing

Oracle Engineering > Copy Routing

Oracle Bills of Material > Copy Routing

Oracle Engineering > Import Bills and Routings

Oracle Bills of Material > Import Bills and Routings

Oracle Engineering > Engineering Master Items

Oracle Engineering > Engineering Organization Items

Oracle Inventory > Master Items

Oracle Inventory > Organization Items

Oracle Engineering > Engineering Routings

Oracle Bills of Material > Routings

Oracle Engineering > Operation Resources

Oracle Bills of Material > Operation Resources

Oracle Engineering > Calculate Lead Times

Oracle Bills of Material > Calculate Lead Times

Oracle Engineering > Transfer to Manufacturing

Oracle Engineering > Copy to Manufacturing

Create Routings

Oracle Manufacturing Release 11*i*

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Agenda

Agenda

- **Introduction**
- **Overview**
- **Maintaining the workday calendar**
- **Defining resources and departments**
- **Creating routings**
- **Calculating lead times**
- **Transferring product information**
- **Summary**

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Agenda

Agenda

- **Introduction**
- Overview
- Maintaining the workday calendar
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- Summary

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Objectives

Objectives

After completing this module, you should be able to:

- Maintain the workday calendar
- Define resources and departments
- Create routings
- Calculate lead times
- Transfer product information

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Using Oracle Applications Help

1. **Navigate to the Oracle Applications Navigator.**

2. **Select Help—>Window Help from the menu bar.**
   The Oracle Applications Help window is displayed.

3. **Enter your search criteria, enclosed within quotation marks, in the Help field and click Find. Oracle Applications Help displays a list of topics that meet your search criteria.**

4. **Click a topic to view detailed information.**

Note: Click Search Instructions for help with searching Oracle Applications Help.

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Chapter 1 - Page 9

Using Oracle Applications Help Within a Window

1. **Open a window in the application you are using.**

2. **Select Help—>Window Help from the menu bar. Oracle Applications Help displays detailed information about the window you opened, including step-by-step instructions for entering information in each field in the window.**

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Agenda

Agenda

- Introduction
- **Overview**
- Maintaining the workday calendar
- Defining resources and departments
- Creating routings
- Calculating lead times
- Transferring product information
- Summary

ORACLE
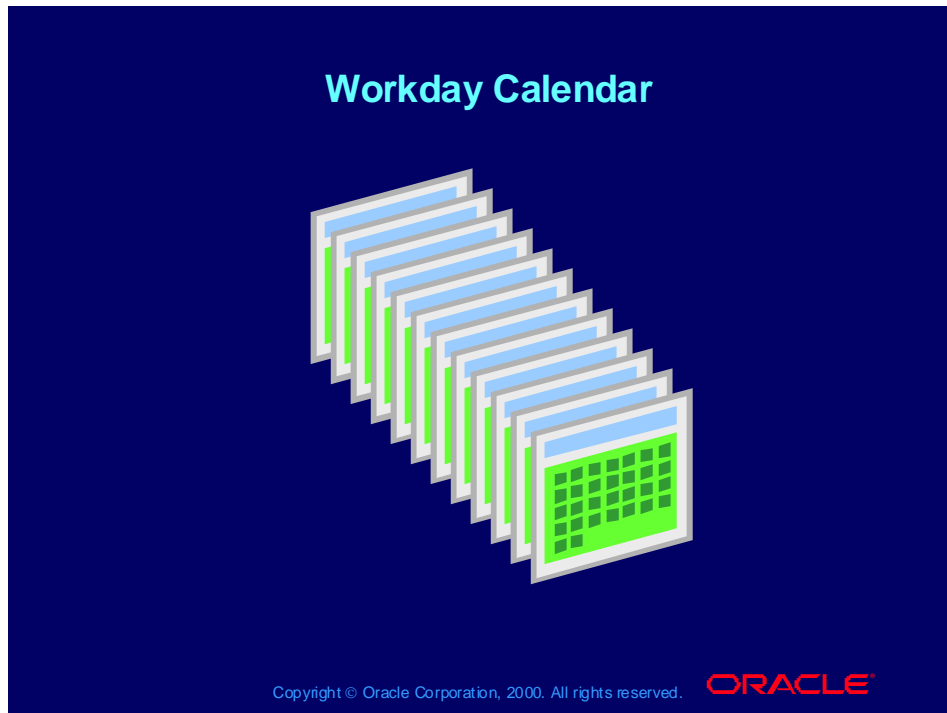
Workday Calendar

Workday Calendar

You use the workday calendar to specify to the Oracle manufacturing applications your workdays, your non-workdays, and your shifts.

Workday exceptions make allowances for the days that will not conform to the workday pattern.

Shifts are the times when workers will be productive and do not include breaks, lunch or any other scheduled nonproductive time.

Resources and Departments

Resources and Departments

Resources and Departments

Resources are anything—except component material—required to manufacture, cost, and schedule products. Each costed resource can have any number of associated costs, including overhead cost. Once you assign resources to routings, other Oracle Applications use them for setting item standard costs, scheduling discrete jobs, and planning for capacity.

A *department* is a collection of resources designed to do certain tasks. A *department class* is a collection of departments.

Routings
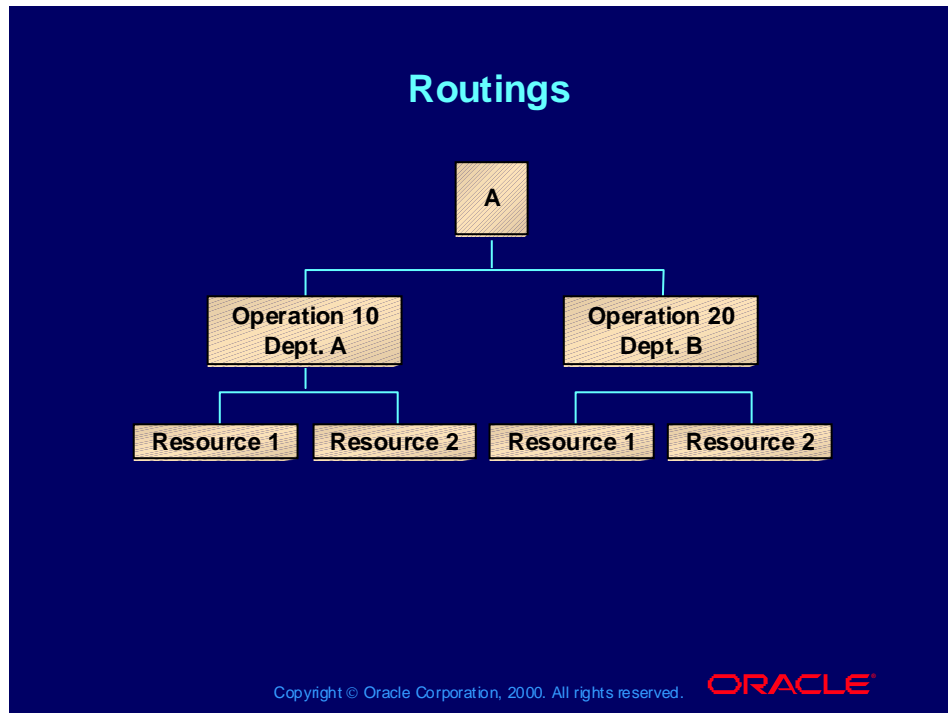
Routings

You use routings to specify the resources and departments that you use to manufacture, cost, and schedule assembly items. You must create resources and departments before you create routings.

You assign department resources to an operation.

If you need to have identical routings for more than one item, you can use the common routings feature.

Create routings by copying an existing routing.

You can review the information you have entered with reports and view screens.

Calculating Lead Times
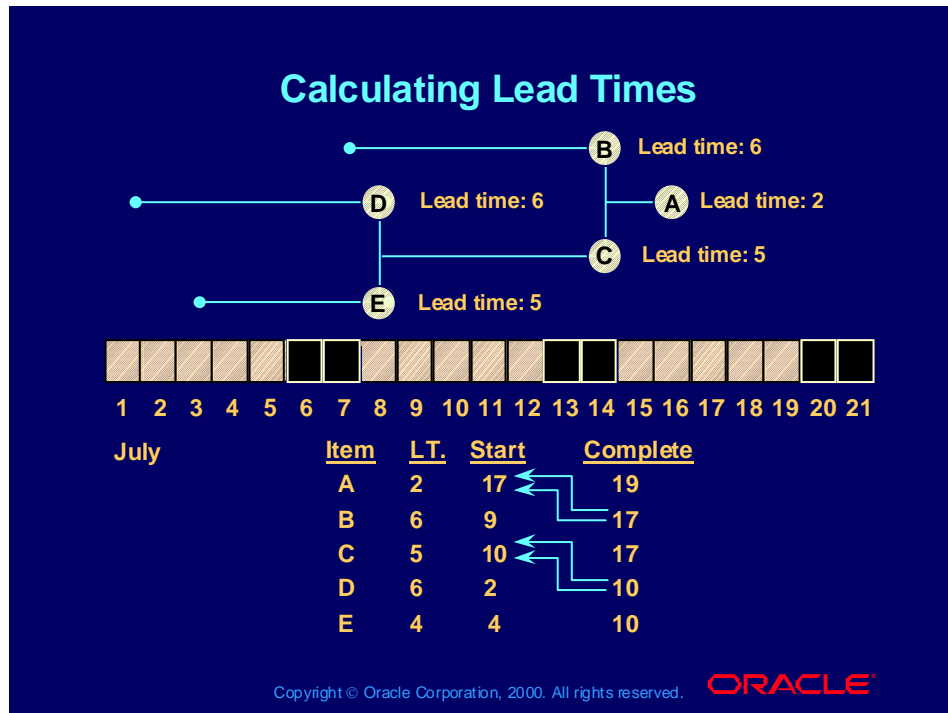
Lead Times

Lead times are item, operation, and operation resource attributes that refer to the amount of time you need to obtain or manufacture an item.

You can:

•Plan material and resources quickly and accurately.

•Establish appropriate planning time fences for products.

•Create purchase orders for material, accounting for vendor lead time.

•Schedule material to arrive at an operation where it is consumed.

•Schedule each resource at an operation where it is consumed.

•Promise accurate product shipment dates.

Transferring Product Information
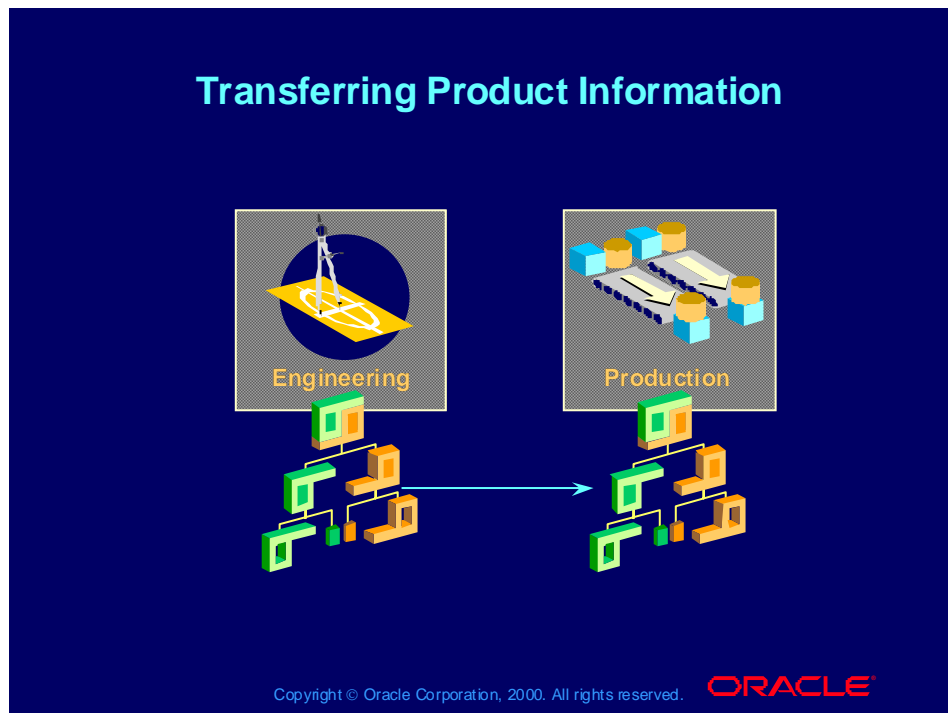
Transferring Product Information

When you decide that engineering information is ready for production, you transfer the product information (items, bills of material, and routing) from engineering to manufacturing.

Transferring removes the information from the engineering side and adds it to the manufacturing side.

Copying leaves the information in the engineering side and creates a new item, bill of material, and routing on the manufacturing side.

Integration
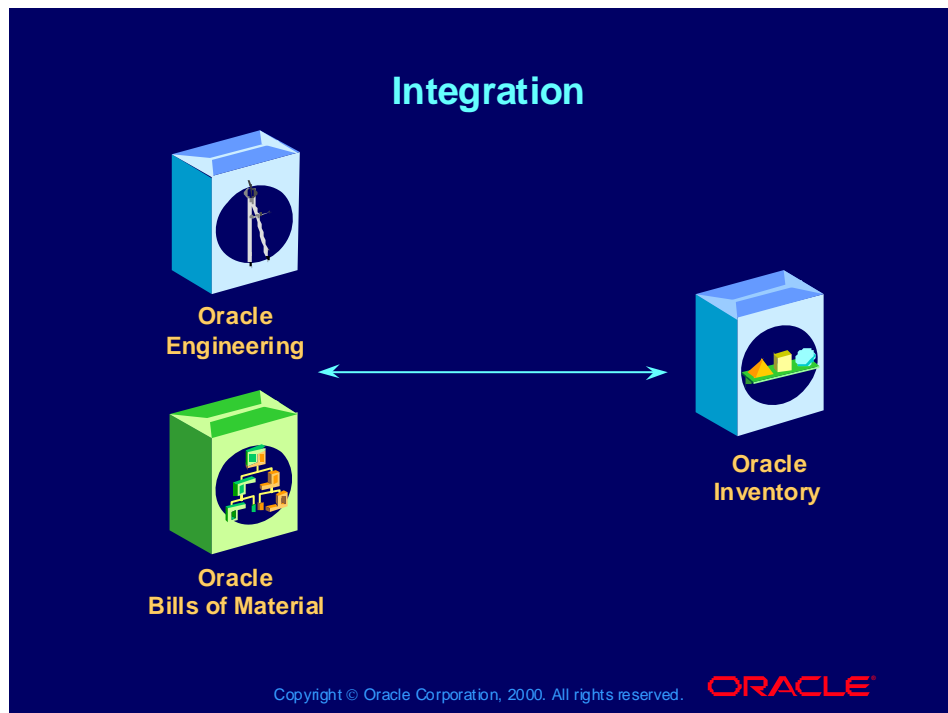
Integrating with Oracle Inventory

You can use items from Oracle Inventory as assemblies for engineering or bills of material routings.

Use lead times to perform reorder point planning.

Integration
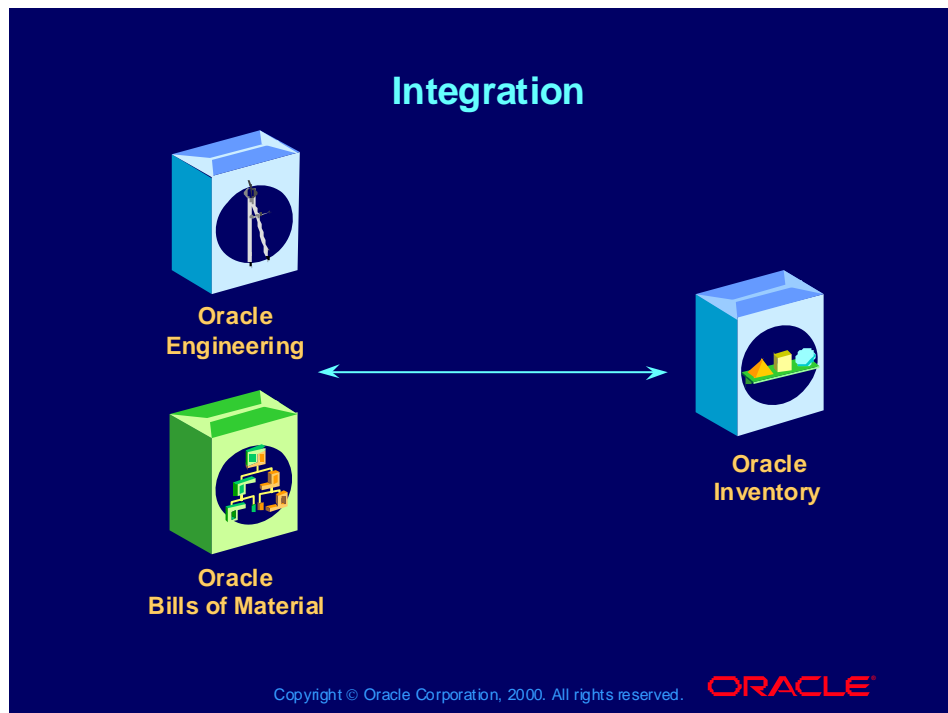
Integrating with Oracle Work in Process (WIP)

When you create discrete jobs and repetitive schedules, Oracle Work in Process (WIP) bases the operations list on the routings of the assembly.

Discrete job detailed scheduling uses resource times from the routings of the assembly.
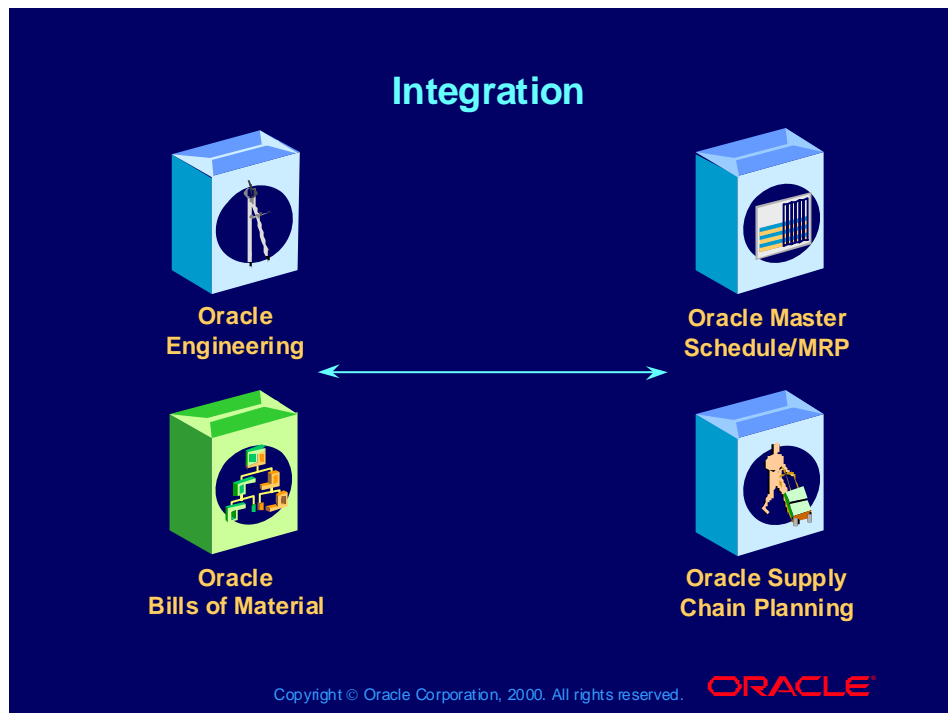
Integration

**Integrating with Oracle Master Scheduling/MRP
and Oracle Supply Chain Planning**

The requirements explosion helps you use lead times for lead time offset and time fences.

Integration
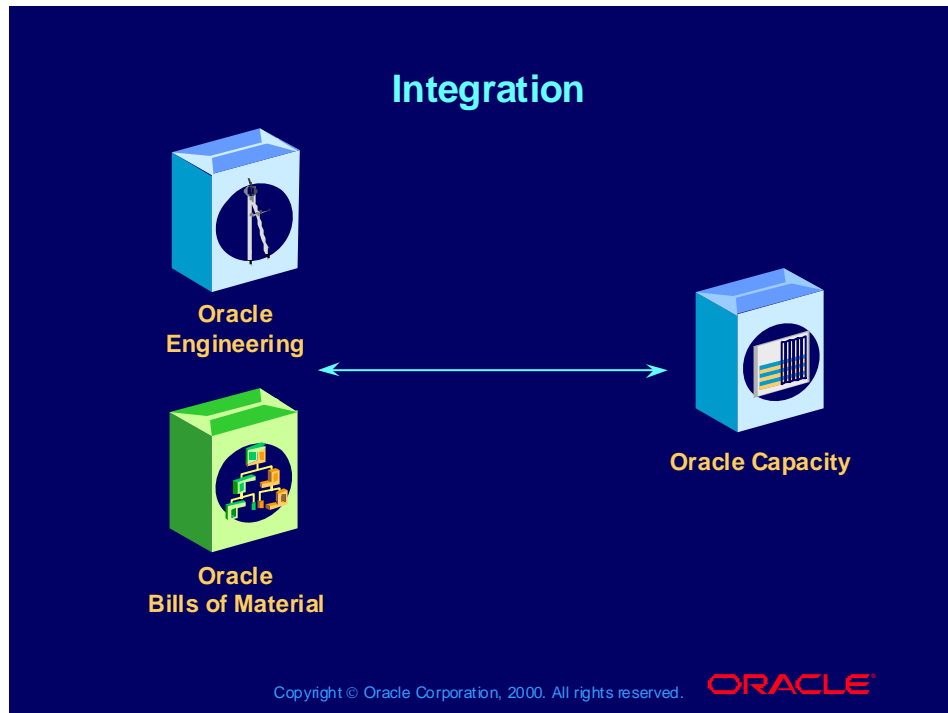
Integrating with Oracle Capacity

Capacity scheduling helps you use resource times from the routings of the assembly.
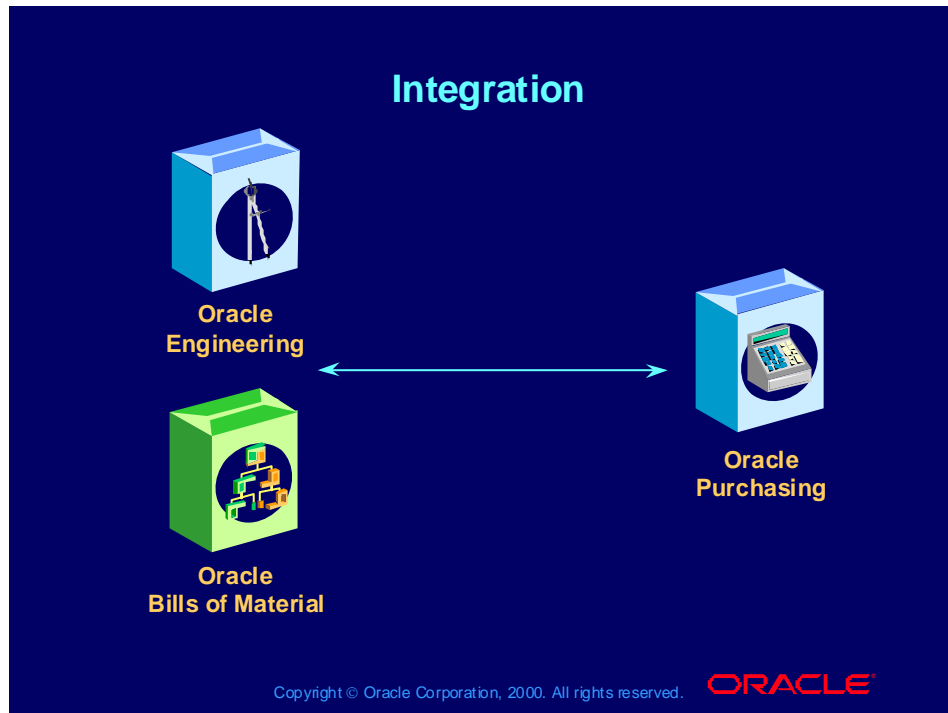
Integration

Integrating with Oracle Purchasing

Oracle Purchasing helps you use lead times for outside processing purchase requisitions and purchase orders.

Integration
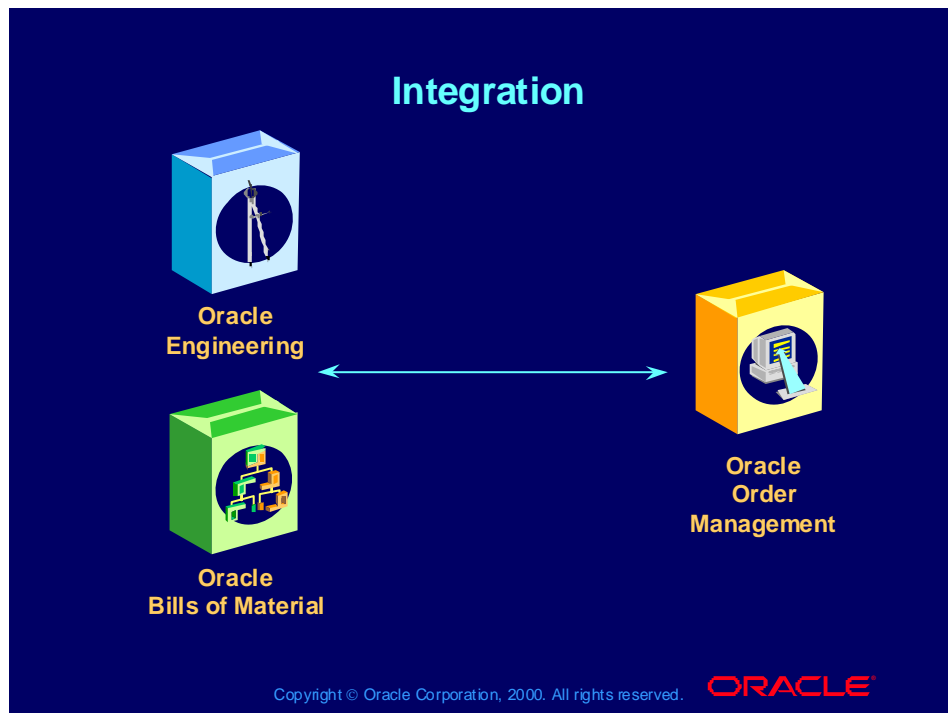
Integrating with Oracle Order Management

The assemble-to-order processes use model and option class routings to create configured routings that are unique to a sales order line.

Integration
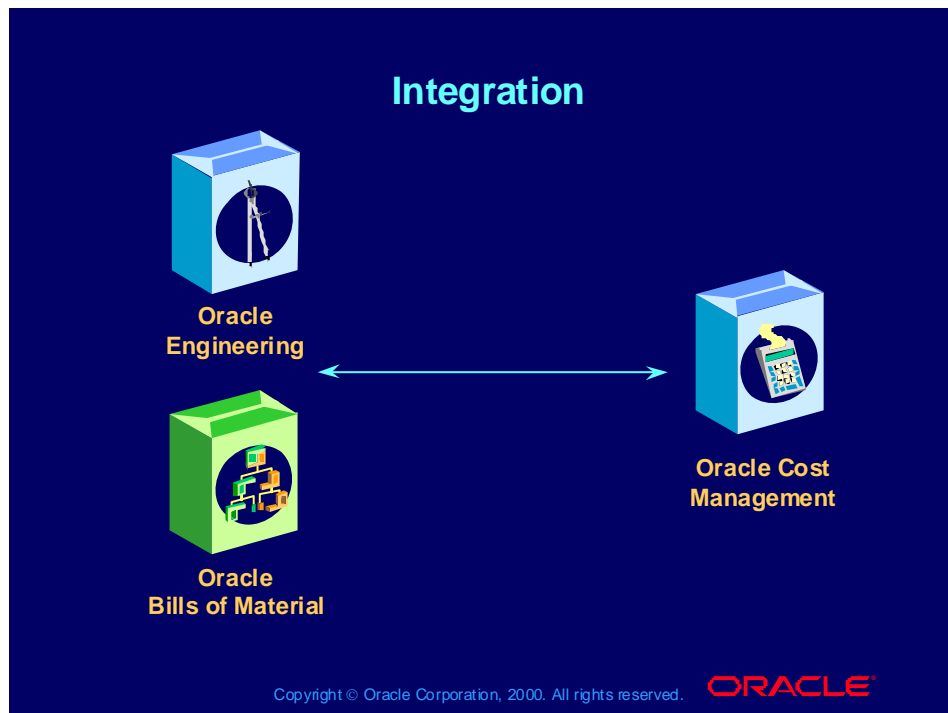
Integrating with Oracle Cost Management

Oracle Cost Management helps you enter resource costs and overhead costs and department overhead costs for the cost rollup process to set standard costs.

Review Question

Review Question

What must you create before you create routings?

1. Resources and departments
2. Lead times and operations
3. Engineering information and lead times
4. Bills of material and resources

Answer to Review Question

Answer to Review Question

What must you create before you create routings?

1. Resources and departments

2. Lead times and operations

3. Engineering information and lead times

4. Resources and bills of material

Agenda

Agenda

- Introduction
- Overview
- **Maintaining the workday calendar**
- Defining resources and departments
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ORACLE®
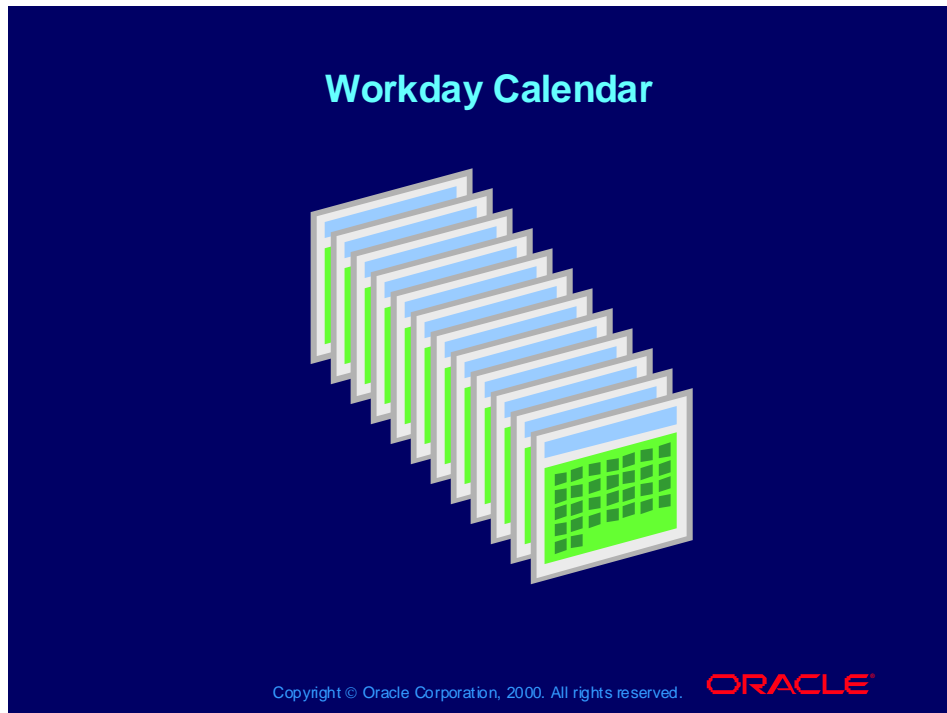
Workday Calendar

Workday Calendar

You use the workday calendar to specify to the Oracle manufacturing applications your workdays, your non-workdays, and your shifts. The workday calendar is different from the financial calendars.

To completely create a calendar, you need to:

- Create a calendar name and starting and completion dates
- Specify a general workday pattern
- Specify exceptions to the general workday pattern
- Specify shifts
- Specify a shift workday pattern if it is different from the general workday pattern
- Specify exceptions to any shift workday patterns
- Build the calendar

Workday Patterns
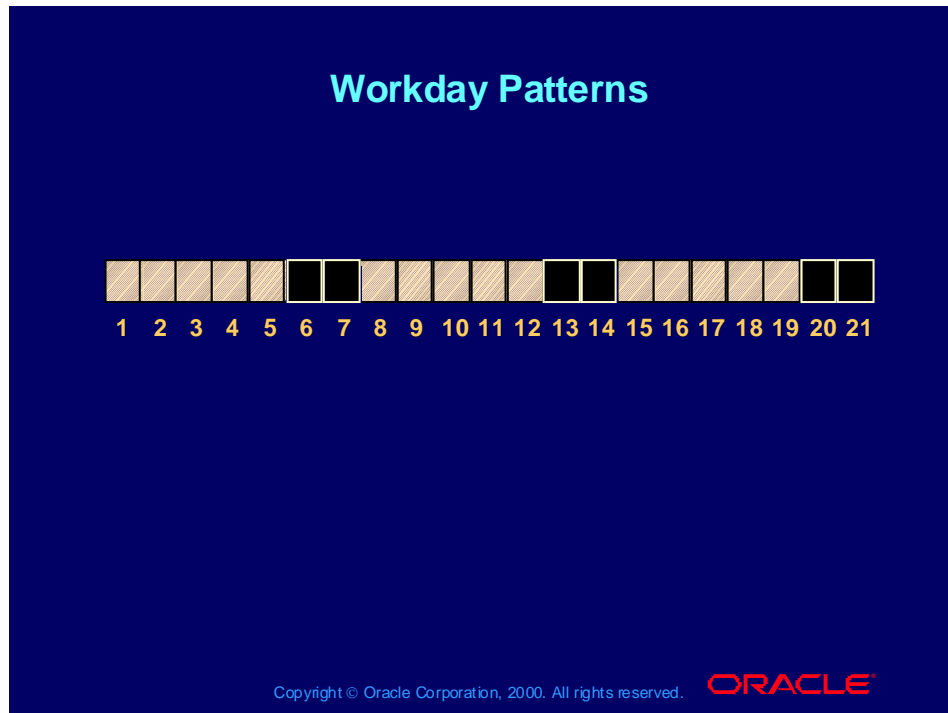
Workday Patterns

You specify the regular pattern of workdays *(days on)* and nonworkdays *(days off)*. The calendar build process denotes each day as a day on or a day off according to the workday pattern that you specify.

You must state a workday pattern for the plant. You can state a workday pattern for a specific shift.

Workday Exceptions
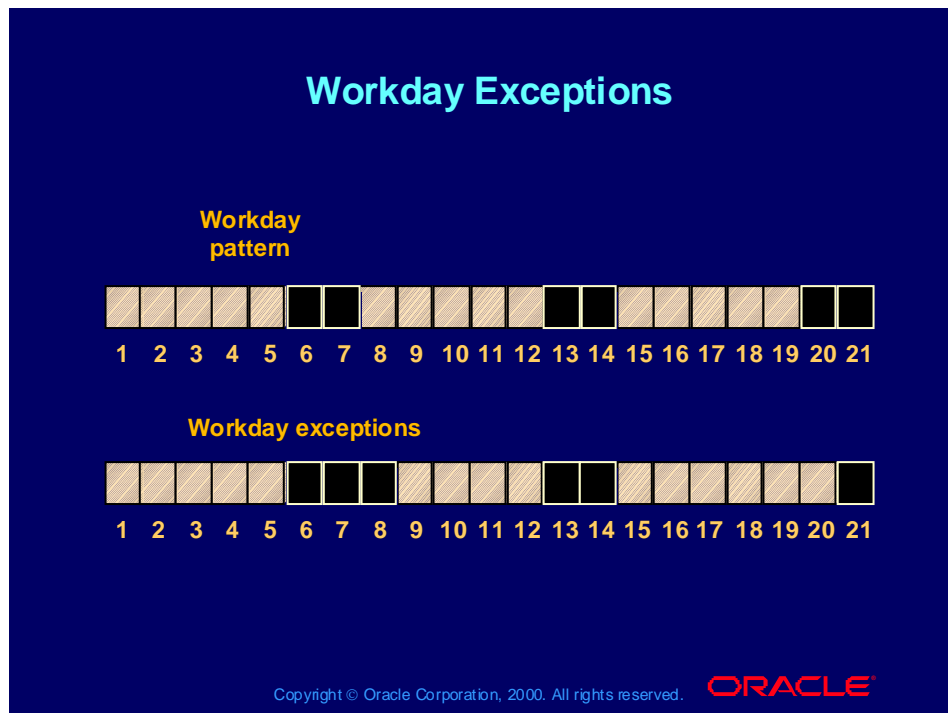
Workday Exceptions

You usually have exceptions to the regular workday pattern. Workday exceptions are:

- Specific days in the calendar that are days on according to the workday pattern but that are actually days off, such as holidays.
- Specific days in the calendar that are days off according to the workday pattern but that are actually days on, such as work on a weekend for the end of a quarter.
- You can state workday exceptions for the plant and for a specific shift. To specify exceptions, you can:
- View a graphical display of each month and select days that are exceptions
- Use a form to create a list of the exception days *(exception list)* for the calendar
- Copy exception lists from other calendars

Navigation Path

Navigation Path

Use the Exception Templates window to create workday exception templates.
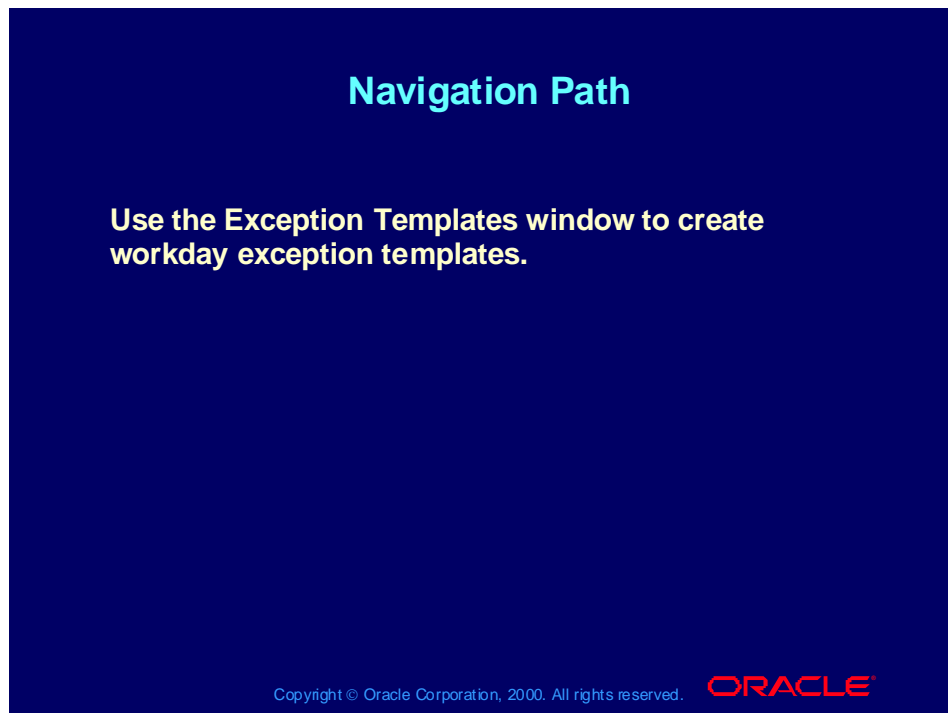
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In Oracle Bills of Material: (N) Setup > Exception Templates

(Help) Oracle Bills of Material > Workday Calendar > Creating a Workday Exception Template

Navigation Path
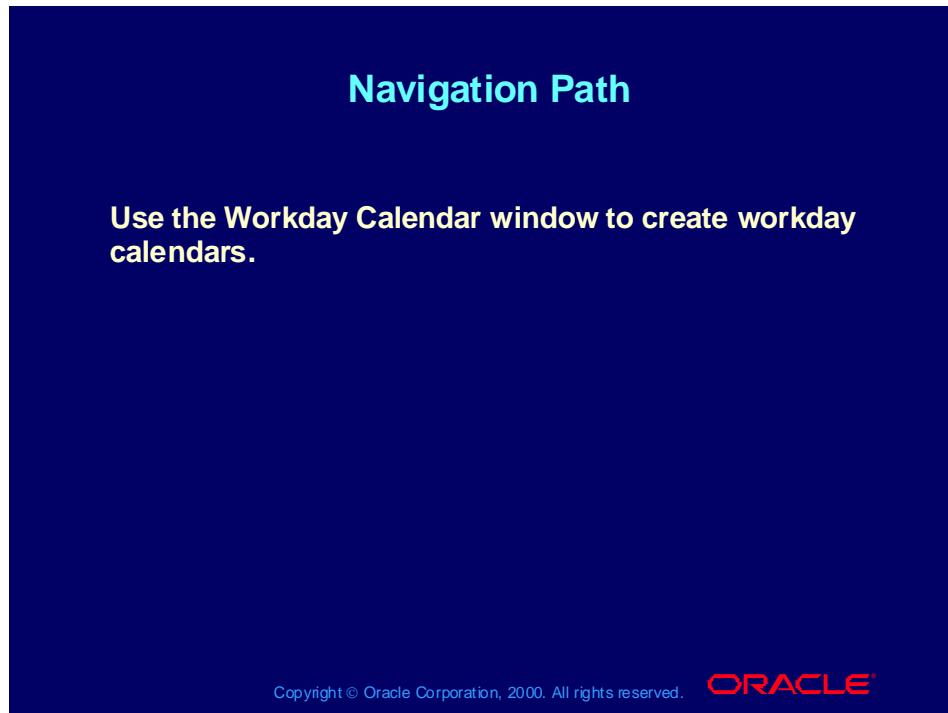
In Oracle Bills of Material: (N) Setup > Calendars

(Help) Oracle Bills of Material > Setting Up > Setup Overview > Step 3 (> Related Topics)

Practice 1 Overview
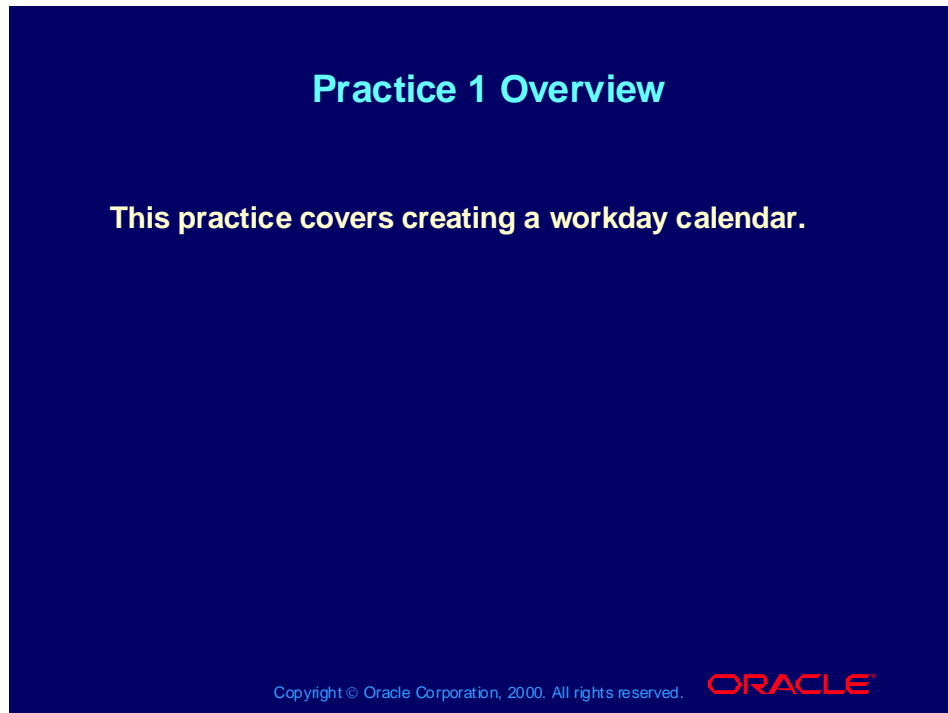
Practice 1 Instructions

1. Create a workday calendar with a workday pattern and shifts that match your facility.

2. View the calendar months.

3. Apply exceptions to the calendar and view the exceptions if necessary.

4. Build the calendar.

Practice 1 Solution

Practice 1 Solution

Practice 1 Solution

Create a workday calendar.
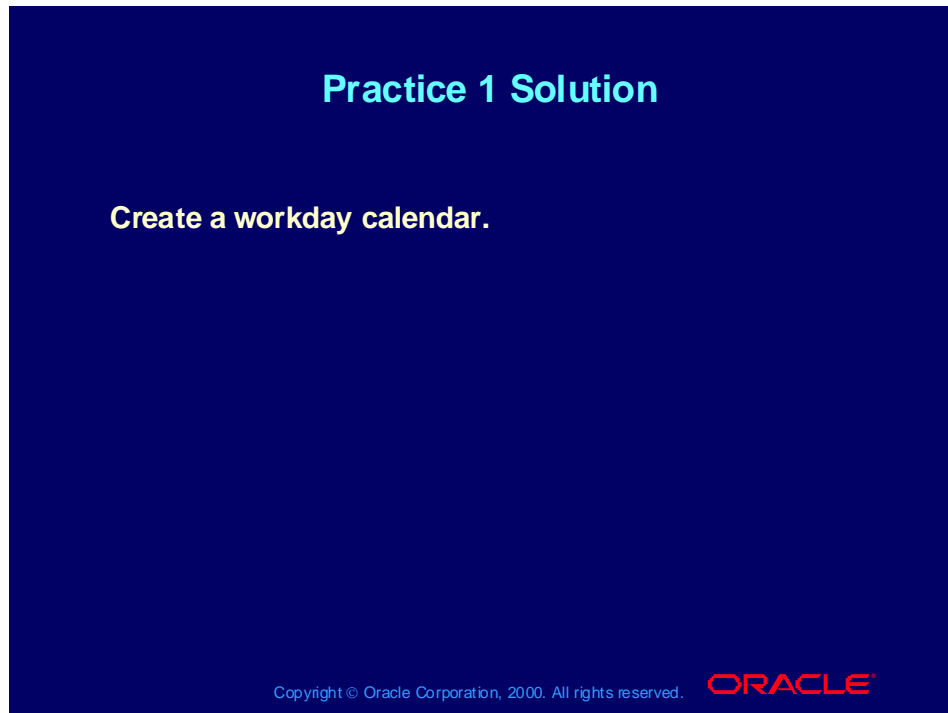
Practice 1 Solution

1. Create a workday calendar with workday pattern and shifts that match your facility.

(N) Bills of Material > Setup > Calendars (B) Workday Pattern

(N) Bills of Material > Setup > Calendars (B) Shifts

2. View the calendar or shift months.

(N) Bills of Material > Setup > Calendars (B) Shifts (B) Dates

3. Apply exceptions to the calendar and view the exceptions if necessary.

(N) Bills of Material > Setup > Calendars (M) Tools > Exception Templates, then (B) Dates > Exception List or (B) Shifts (B) Dates > Exception List

To copy, use (N) Bills of Material > Setup > Calendars (M) Tools > Copy

4. Build the calendar.

(N) Bills of Material > Setup > Calendars (M) Tools > Build

Review Question

Review Question

Which entity is not part of the workday calendar process?

1. Build

2. Resources

3. Exceptions

4. Shifts

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Answer to Review Question

Which entity is not part of the workday calendar process?

1. Build

2. Resources

3. Exceptions

4. Shifts

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Agenda

Agenda

- Introduction
- Overview
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- **Defining resources and departments**
- Creating routings
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- Summary

Resources

Resources

Resources are anything—except component material—required to manufacture, cost, and schedule products. You identify resources, associate them with departments, state the resource work shifts. When you create routings, you as sign them to its operations. Once in the routings, the resources are used for setting item standard costs, scheduling discrete jobs, and planning for capacity.

For discrete manufacturing, resources include people (for example, a machinist), machines or tools (for example, a drill press), space (for example, a finished goods stockroom), and time (for example, queue time).

When you charge a resource, you add the cost of the resource to the cost of a discrete job or a repetitive schedule in Oracle Work in Process (WIP).

You can permanently adjust the availability of the resource by using the following factors:

· Utilization: The percent of time during which the resource is not performing work on a product as described in the manufacturing routings. The routings describe setup, run, and teardown times. For example, an employee who is present for eight hours each day attends a planning meeting for one-half hour at the beginning of each day and cleans up for one-half hour at the end of each day. The employee's utilization is seven hours of eight hours (7 / 8 * 100) or 87.5 percent.

· Efficiency: The percent of work that the resource can produce in a day in relation to the standard times. For example, an employee is

new and you expect that, for the first six months, the employee will be able to complete 75 percent of the work of more experienced

employees doing the same work. Since you set your standard times based on experienced employees, you indicate the new

employee's utilization at 75 percent.

Navigation Path

In Oracle Engineering: (N) Prototypes > Routings > Resources
In Oracle Bills of Material: (N) Routings > Resources
(Help) Oracle Bills of Material > Setting Up > Setup Overview > Step 7

Navigation Path

Navigation Path

Use the Resource Costs window to enter resource unit costs.

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In Oracle Engineering: (N) Prototypes > Routings > Resources (B) Rates

In Oracle Bills of Material: (N) Routings > Resources (B) Rates

(Help) Oracle Bills of Material > Setting Up > Setup Overview > Step 7

Navigation Path

Navigation Path

Use the Resource Overhead Associations window to specify the overhead charge type, cost, and resource overhead.

In Oracle Engineering: (N) Prototypes > Routings > Resources (B) Overheads

In Oracle Bills of Material: (N) Routings > Resources (B) Overheads

(Help) Oracle Bills of Material > Setting Up > Setup Overview > Step 7

Navigation Path

Navigation Path

Use the Quick Codes (CRP_RESOURCE_GROUPS) window to define resource groups.
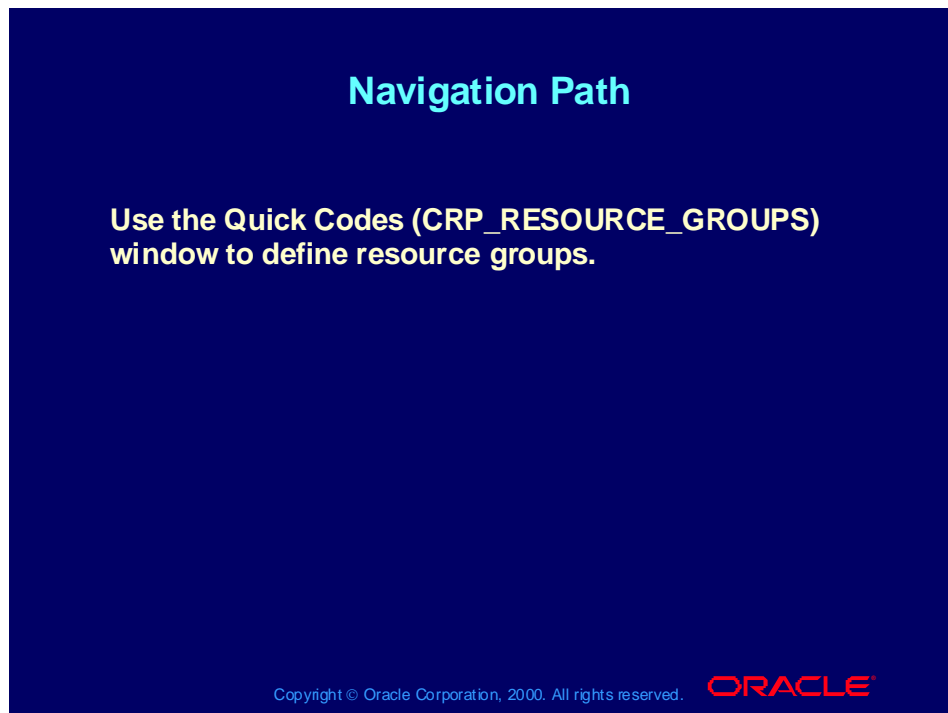
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In Oracle Bills of Material: (N) Setup > Resource Groups
(Help) Oracle Bills of Material > Setting Up > Setup Overview > Step 8

Navigation Path

In Oracle Bills of Material: (N) Setup > Simulation Sets
(Help) Oracle Bills of Material > Setting Up > Setup Overview > Step 9

Departments
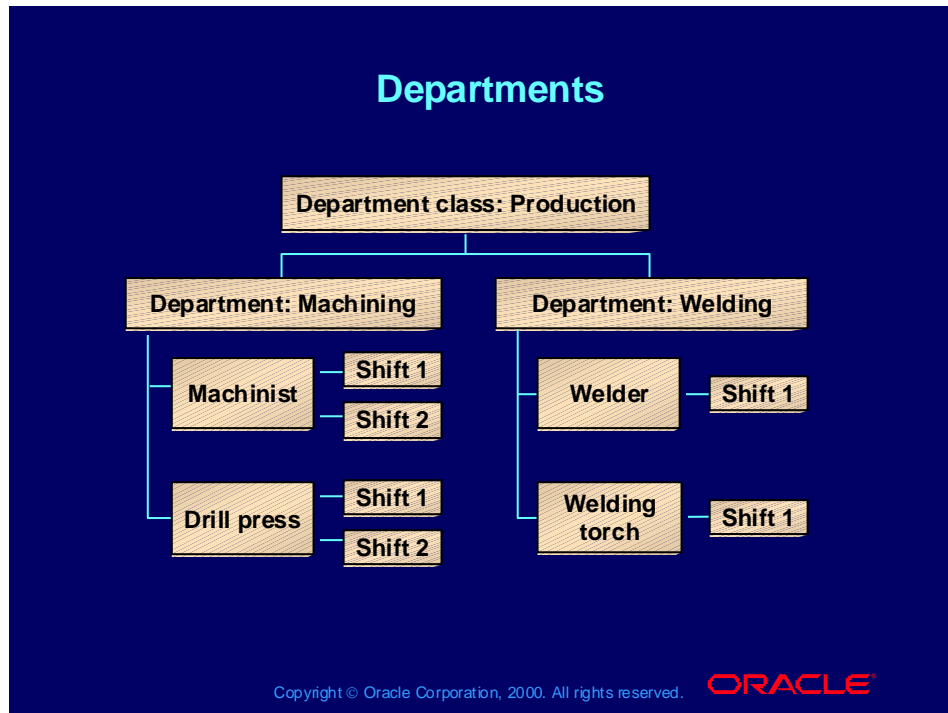
Departments and Department Classes

A *departments* is a collection of resources designed to do certain tasks. For example, you might group the drill presses and machinists into a department. Departments are also called *work centers*.

A *department class* is a collection of departments. For example, you might group the welding, machining, plating, and painting departments into the "manufacturing" department class, and you might group the unit test and final test departments into the "quality" department class.

Resources, Departments, and Shifts

You assign resources to one or more departments, and you can share resources with other departments.

A shift represents a period of time during which a resource is available for work. You specify the times for your shifts in the workday calendar. When you assign the resource to its department, you specify the shifts in which the resource is available.

Navigation Path

Navigation Path

Use the Department Classes window to define department classes.

In Oracle Bills of Material: (N) Setup > Department Classes
(Help) Oracle Bills of Material > Setting Up > Setup Overview > Step 6

Navigation Path
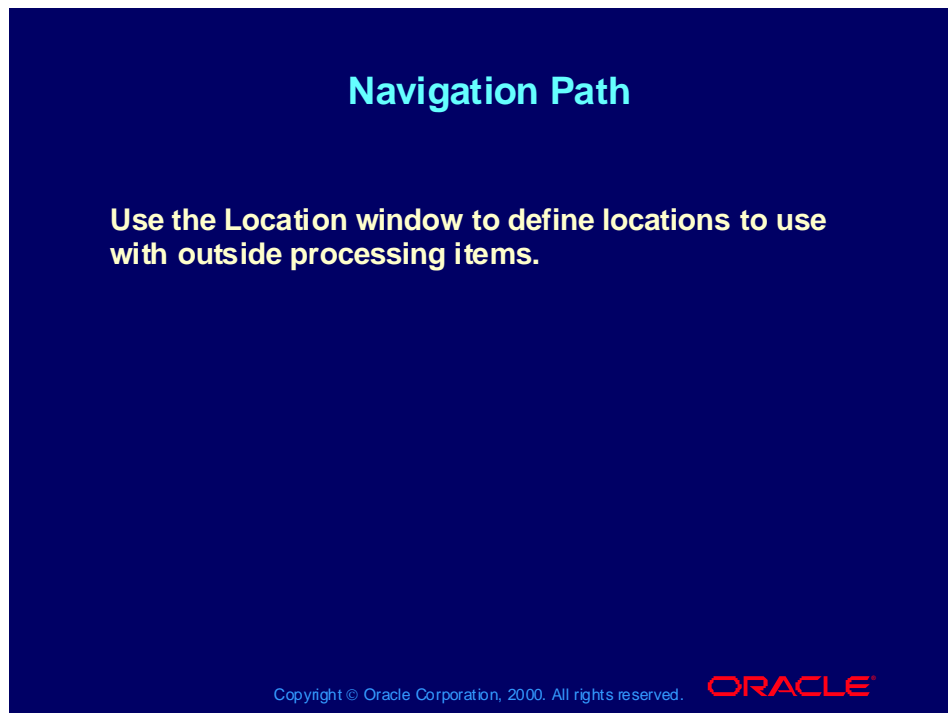
In Oracle Bills of Material: (N) Setup > Locations
(Help) Oracle Purchasing > Setting Up > Defining Locations

Navigation Path

Navigation Path

Use the Departments window to define departments.

In Oracle Engineering: (N) Prototypes > Routings > Departments

In Oracle Bills of Material: (N) Routings > Departments

(Help) Oracle Bills of Material > Setting Up > Setup Overview > Step 11

Navigation Path

Navigation Path

Use the Overhead Rates window to associate overheads with departments.

In Oracle Engineering: (N) Prototypes > Routings > Departments (B) Rates

In Oracle Bills of Material: (N) Routings > Departments (B) Rates

(Help) Oracle Bills of Material > Setting Up > Setup Overview > Step 14

Navigation Path

Navigation Path

Use the Resources window to assign resources to departments.

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In Oracle Engineering: (N) Prototypes > Routings > Departments (B) Resources

In Oracle Bills of Material: (N) Routings > Departments (B) Resources

(Help) Oracle Bills of Material > Setting Up > Setup Overview > Step 12

Navigation Path

Navigation Path

Use the Shifts window to specify resource shifts.

In Oracle Engineering: (N) Prototypes > Routings > Departments (B) Resources (B) Shifts

In Oracle Bills of Material: (N) Routings > Departments (B) Resources (B) Shifts

(Help) Oracle Bills of Material > Setting Up > Setup Overview > Step 12

Capacity Changes
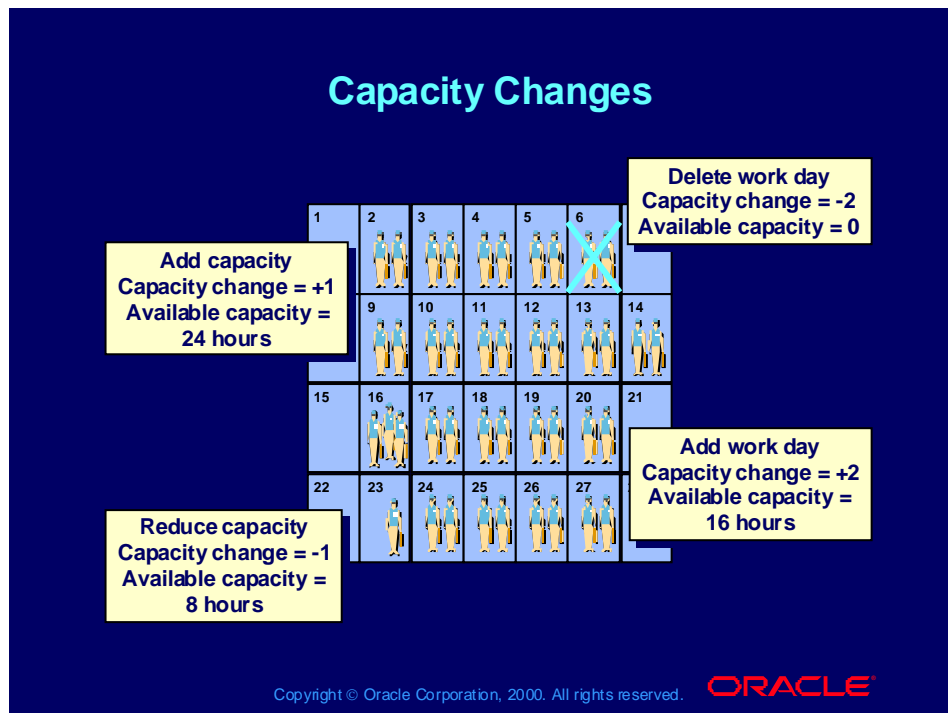
Capacity Changes

A *capacity change* is a temporary change to the available capacity of a resource—for example, work on a specific Saturday. You identify a capacity modification for a resource within a shift for a resource. When you plan capacity or detail schedule a resource that has capacity modifications, the planning and scheduling processes might schedule work on a different day than they would have scheduled the same work if there were no capacity change.

A *simulation set* is the label for a group of capacity changes needed for a specific purpose—for example, a vacation schedule or an end-of-quarter overtime schedule. You can simulate capacity changes by performing a capacity plan using a simulation set.

Navigation Path
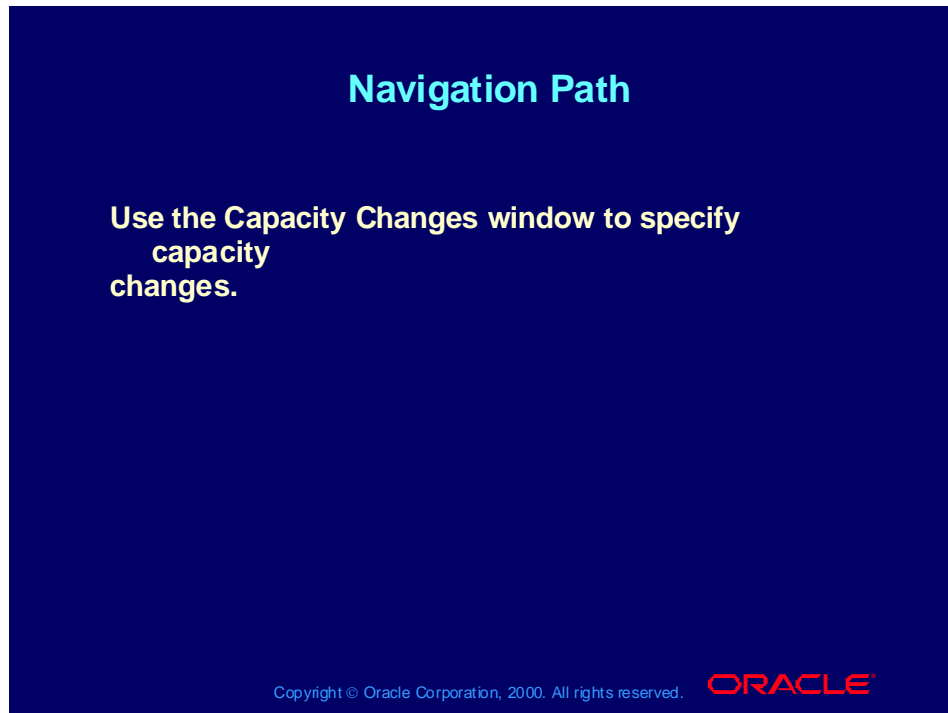
Navigation Path

Use the Capacity Changes window to specify capacity changes.

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In Oracle Engineering: (N) Prototypes > Routings > Departments (B) Resources (B) Shifts (B) Capacity Changes

In Oracle Bills of Material: (N) Routings > Departments (B) Resources (B) Shifts (B) Capacity Changes

(Help) Oracle Bills of Material > Setting Up > Setup Overview > Step 12

Practice 2 Overview

Practice 2 Instructions

1. Create a department class code XX-PCMFG with description PC Manufacturing Department Class.

2. Create resources using the following table:

Note: XX represents your team.

Resource	Description	Type
XXInserter	Auto Inserter	Machine
XXAssblr	Labor Grade 1	Person
XXTester	Tester	Person

Note: For each resource, use the following additional information:

• UOM: HR

• Autocharge: WIP Move

• Default Basis: Item

• Costed: Yes

• Standard Rate: Yes

• Absorption Account: Any account number

• Variance Account: Any account number

• Overheads: Do not enter

• Resource Costs: Do not enter

• 3. Create departments using the following table:

•Department Units	Description	Resource Name	Capacity
•XX-AutoIns	Auto Insertion	XXInserter	1
•XX-ManAssy	Manual Assy	XXAssblr	10
•XX-Test	Testing	XXTester	3
•XX-PCFinal	PC Final Assy	XXAssblr	4
•XX-PCFinal	PC Final Assy	XXTester	2

•Assign departments to class XX-PCMFG

•**Note:** For each resource, use the following additional information:

•Class: XX-PCMFG

•Shared: No

•Available 24 Hours: No

•Assigned Shifts: 1

Practice 2 Solution

Practice 2 Solution

Create resources, department classes, and departments.

Practice 2 Solution

1. Create a department class code XX-PCMFG with description PC Manufacturing Department Class.

(N) Bills of Material > Setup > Department Classes

2. Create resources using the following table:

Note: XX represents your initials.

Resource	Description	Type
XXInserter	Auto Inserter	Machine
XXAssblr	Labor Grade 1	Person
XXTester	Tester	Person

Note: For each resource, use the following additional information:

• UOM: HR

• Charge Type: WIP Move

• Default Basis: Item

• Costed: Yes

• Standard Rate: Yes

• Absorption Account: Any account number

• Variance Account: Any account number

• Overheads: Do not enter

• Resource Costs: Do not enter

Oracle Manufacturing - Create Routings Release 11i

Chapter 1 - Page 55

•**(N) Engineering > Prototypes > Routings > Resources**

•3. Create departments using the following table:

•Department Units	Description	Resource Name	Capacity
•XX-AutoIns	Auto Insertion	XXInserter	1
•XX-ManAssy	Manual Assy	XXAssblr	10
•XX-Test	Testing	XXTester	3
•XX-PCFinal	PC Final Assy	XXAssblr	4
•XX-PCFinal	PC Final Assy	XXTester	2

•Assign departments to class XX-PCMFG.

•**Note:** For each resource, use the following additional information:

•Class: XX-PCMFG

•Share: No

•Available 24 Hours: No

•Assigned Shifts: 1

•**(N) Engineering > Prototypes > Routings > Departments**

Review Question

Which of the following Entity : Action pairs is not correct?

1. Resource : Assign to operation

2. Department class : Assign to department

3. Shift : Assign to resource

4. Capacity change : Assign to shift

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Answer to Review Question

Answer to Review Question

Which of the following Entity : Action pairs is not correct?

1. Resource : Assign to operation

2. Department class : Assign to department

3. Shift : Assign to resource

4. Capacity change : Assign to shift

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Agenda

Agenda

- Introduction
- Overview
- Maintaining the workday calendar
- Defining resources and departments
- **Creating routings**
- Calculating lead times
- Transferring product information
- Summary

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Routings

Engineering and Manufacturing Routings

You use routings to specify the process that you use to manufacture both discrete and repetitive assembly items. A routing consists of operation steps. Each operation step occurs at a department and contains resources that perform work, schedule time, or add cost to the assembly.

Engineering routings are routings that your engineering function creates. *Manufacturing routings* are routings that you use in production. You create engineering routings in Oracle Engineering and you create manufacturing routings in Oracle Inventory. They differ only in the following ways:

•Engineering routings have the routing Engineering attribute selected.

•Manufacturing routings have the routing Engineering attribute clear.

•You access the two through different navigation paths.

•They have different form titles.

•You create and change engineering routings using the Oracle Engineering forms; you create and change manufacturing routings using the Oracle Bills of Material forms.

Primary and Alternate Routings
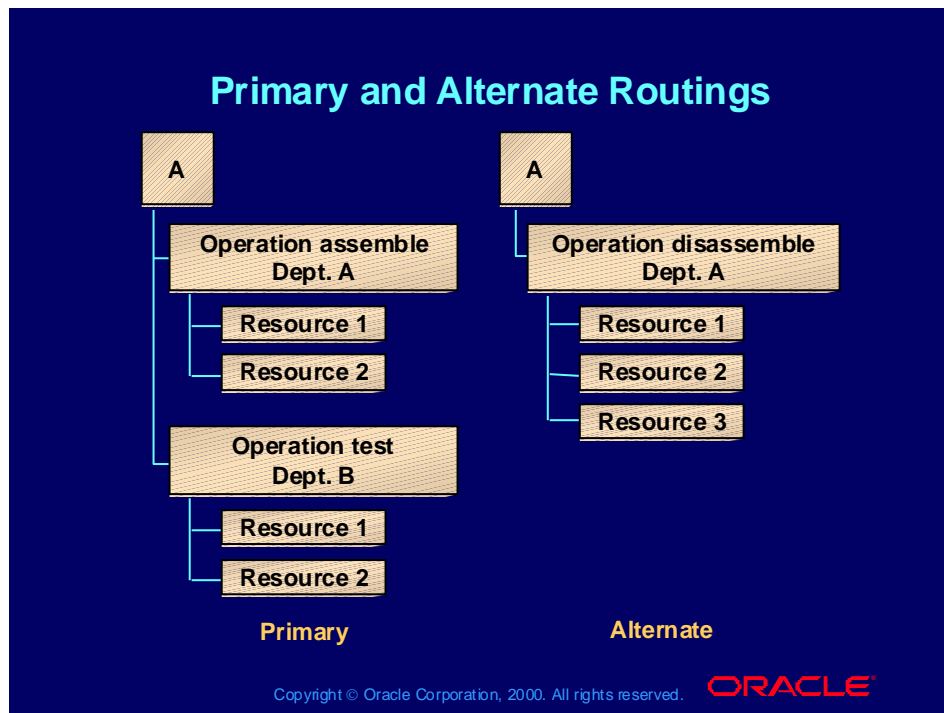
Defining Primary and Alternate Routings

Each item that has a routing has a primary routing. If you create other routings for items, you refer to them as *alternate routings*. You use alternate routings in the following ways:

- You identify each alternate routing by naming it. For example, you create a primary routing to use when you manufacture the item and you want to create another routing to use when you rework the item. Name the alternate routing Rework.

- You can create as many alternate routings as you need for any item. The alternate name must belong to the alternate list of values before you can use it.

- You must add the name of the alternate routing to the list before you use it.

When you create discrete jobs and repetitive schedules in Oracle Work in Process, you can specify which routing it should use when creating the operations list. If you use an alternate routing, you can automatically create a variance because standard cost is based on the primary routing.

Routings in Multiple Organizations
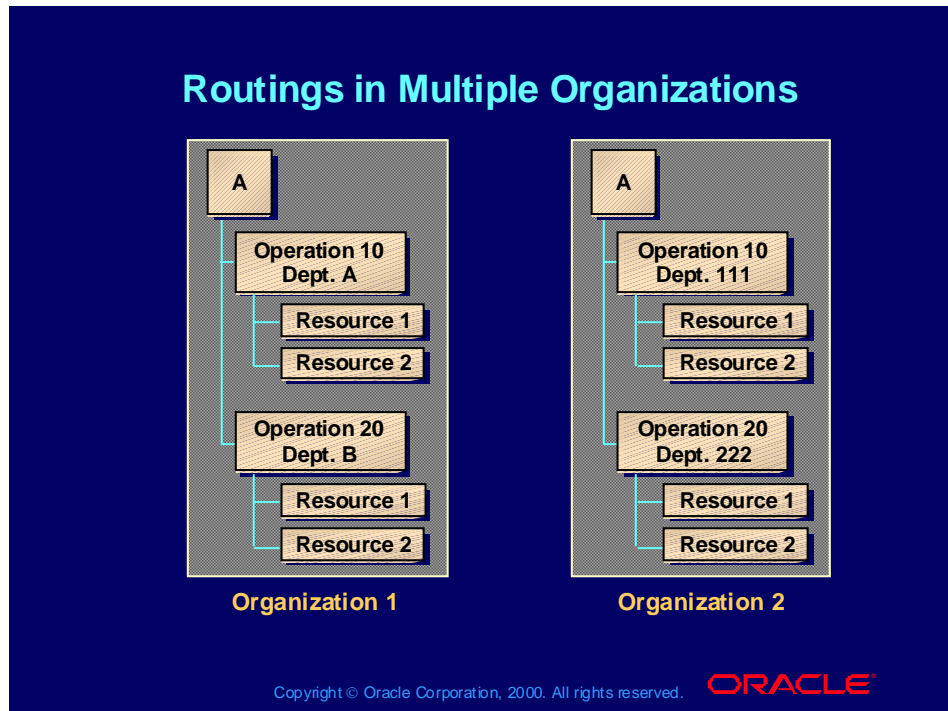
Routings in Multiple Organizations

You create items in the master organization and assign them to the manufacturing and distribution organizations in which you use them. Within the assigned organization, you create routings.

Example

Creating a routing for item A in organization 1 with operation step 10 in department 111 and operation step 20 in department 222

Creating a routing for item A in organization 2 with operation step 10 in department 111 and operation step 20 in department 222

Creating a routing for item A in organization 3 with operation step 10 in department 333 and operation step 20 in department 444

Navigation Path

Navigation Path

Use the following windows to enter routings:
- **Engineering Routings in Oracle Engineering**
- **Routings in Oracle Bills of Material**

In Oracle Engineering: (N) Prototypes > Routings > Routings

In Oracle Bills of Material: (N) Routings > Routings

(Help) Oracle Bills of Material > Routings > Defining a Routing > Creating a Routing

(Help) Oracle Bills of Material > Routings > Defining a Routing > Assigning a Completion Subinventory and Locator

Routing Revisions

Routing Revisions

A

| Operation 10
Dept. A |
| Resource 1 |
| Resource 2 |

| Operation 20
Dept. B |
| Resource 1 |
| Resource 2 |

Revision A

A

| Operation 10
Dept. A |
| Resource new |
| Resource 2 |

| Operation 20
Dept. new |
| Resource 1 |
| Resource 2 |
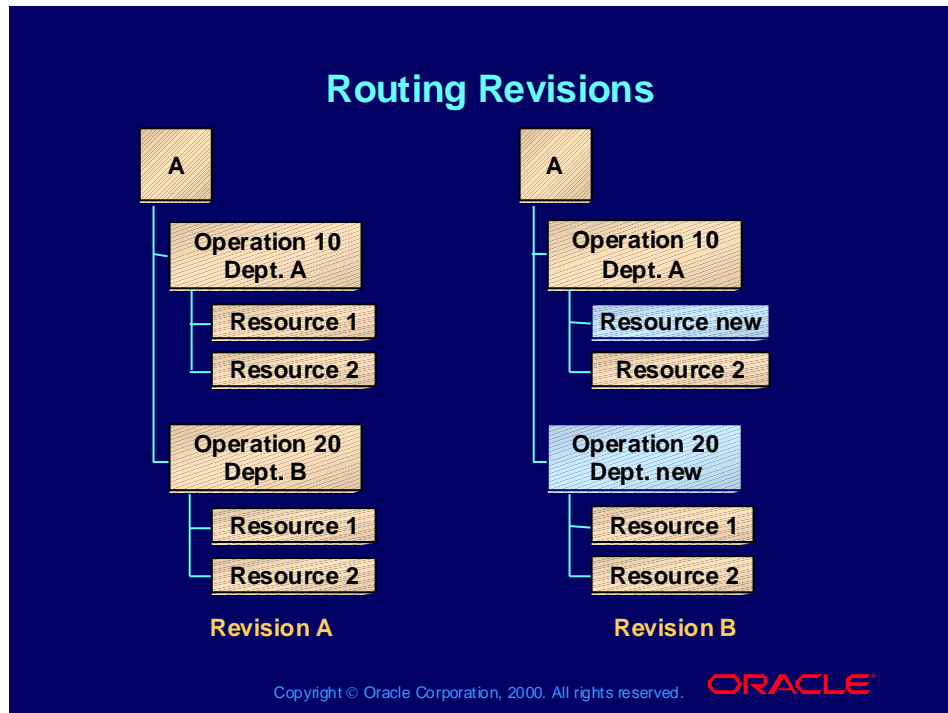
Revision B

Defining Routing Revisions

A routing revision helps you indicate that the operations and resources of an item have changed. You do not have to use routing revisions when you change routings. Oracle Engineering and Oracle Bills of Material date stamp all changes that you make to routings when you increase the revision.

Navigation Path

Navigation Path

Use the Routing Revisions window to create routing revisions.
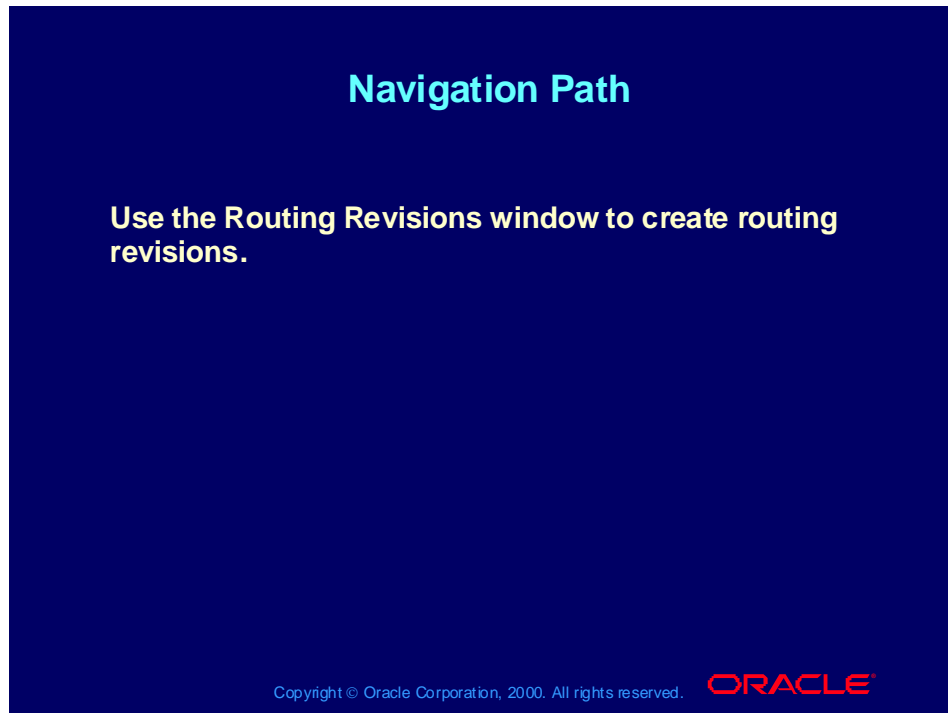
In Oracle Engineering: (N) Prototypes > Routings > Routings (B) Routing Revisions

In Oracle Bills of Material: (N) Routings > Routings (B) Routing Revisions

(Help) Oracle Bills of Material > Routings > Defining a Routing > Creating a Routing Revision

Navigation Path
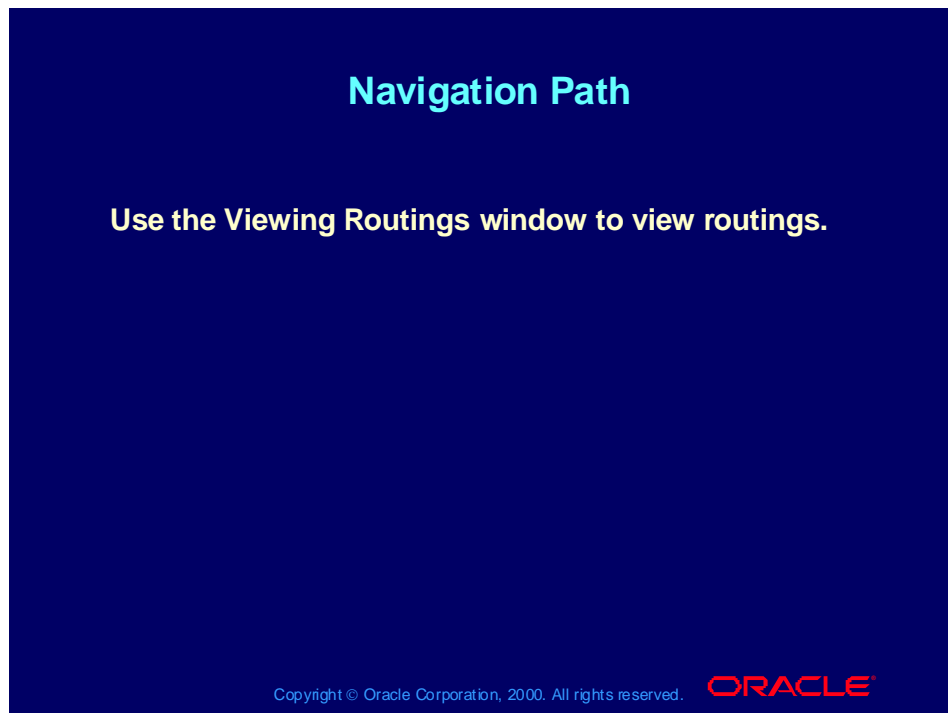
Navigation Path

Use the Viewing Routings window to view routings.

In Oracle Engineering: (N) Prototypes > Routings > Routings

In Oracle Bills of Material: (N) Routings > Routings

(Help) <no help available>

Navigation Path

Use the Reports window to request routing reports.

**In Oracle Engineering and Oracle Bills of Material: (N) Reports >
Routings**
(Help) Oracle Bills of Material > Reports and Processes > ...

Navigation Path

Navigation Path

Use the Operation Resources window to create operation resources.

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In Oracle Engineering: (N) Prototypes > Routings > Routings (B) Operation Resources

In Oracle Bills of Material: (N) Routings > Routings (B) Operation Resources

(Help) Oracle Bills of Material > Routings > Defining a Routing > Assigning Operation Resources

Standard Operations
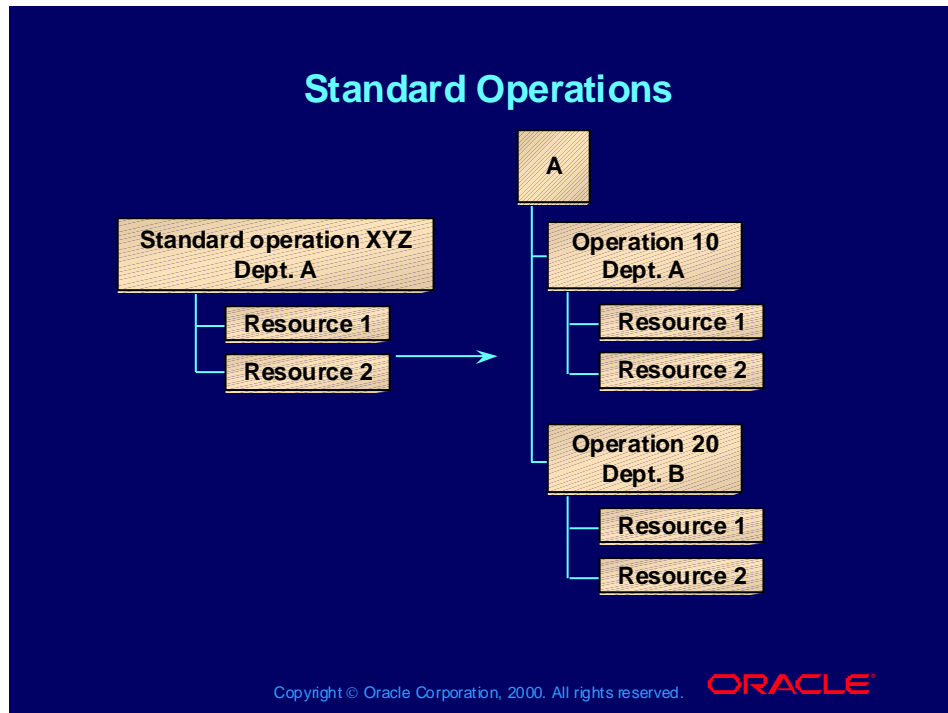
Defining Standard Operations

A *standard operation* holds operation and resource information. Create a standard operation for an operation that you will use in many routings. As you create specific routings, you can copy standard operations to an operation. The operation and resource information will copy to the routing and you can change any of the information after the copying is complete.

A standard operation is not the same as a standard bill of material.

Navigation Path

In Oracle Engineering: (N) Prototypes > Routings > Standard Operations

In Oracle Bills of Material: (N) Routings > Standard Operations

(Help) Oracle Bills of Material > Setting Up > Setup Overview > Step 17

Navigation Path

Navigation Path

Use the Resources window to create standard operation resources.

In Oracle Engineering: (N) Prototypes > Routings > Standard Operations (B) Operation Resources

In Oracle Bills of Material: (N) Routings > Standard Operations (B) Operation Resources

(Help) Oracle Bills of Material > Setting Up > Setup Overview > Step 17

Navigation Path

Navigation Path

Use the Resource WhereUsed window to view the routings and operations that use a resource.
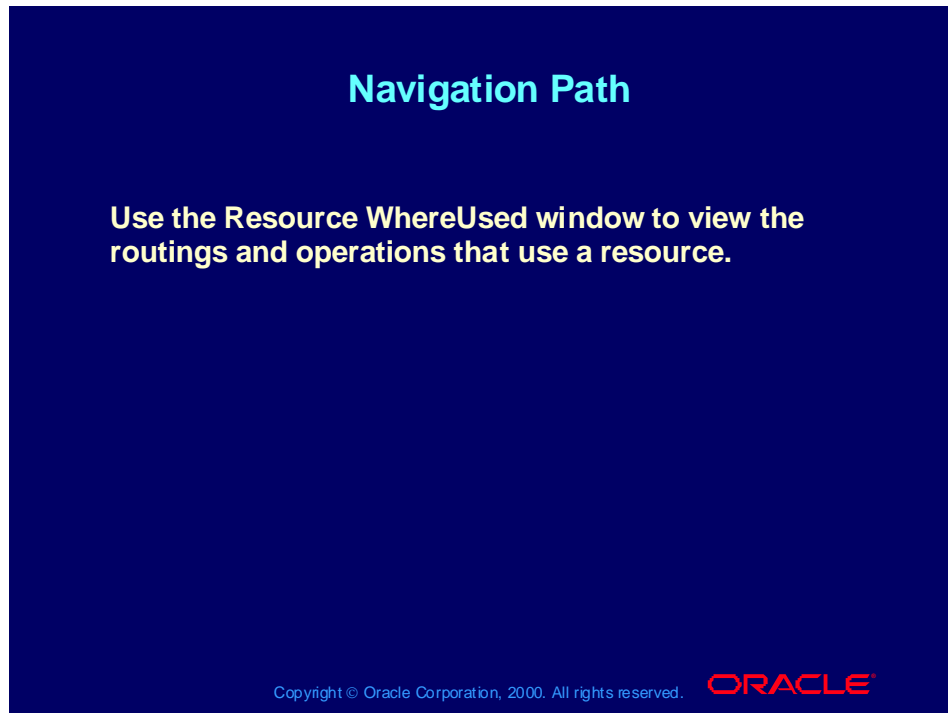
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In Oracle Engineering: (N) Prototypes > Routings > Resource WhereUsed

In Oracle Bills of Material: (N) Routings > Resource WhereUsed

**(Help) Oracle Bills of Material > Routings > Viewing Resource Usage**

Navigation Path
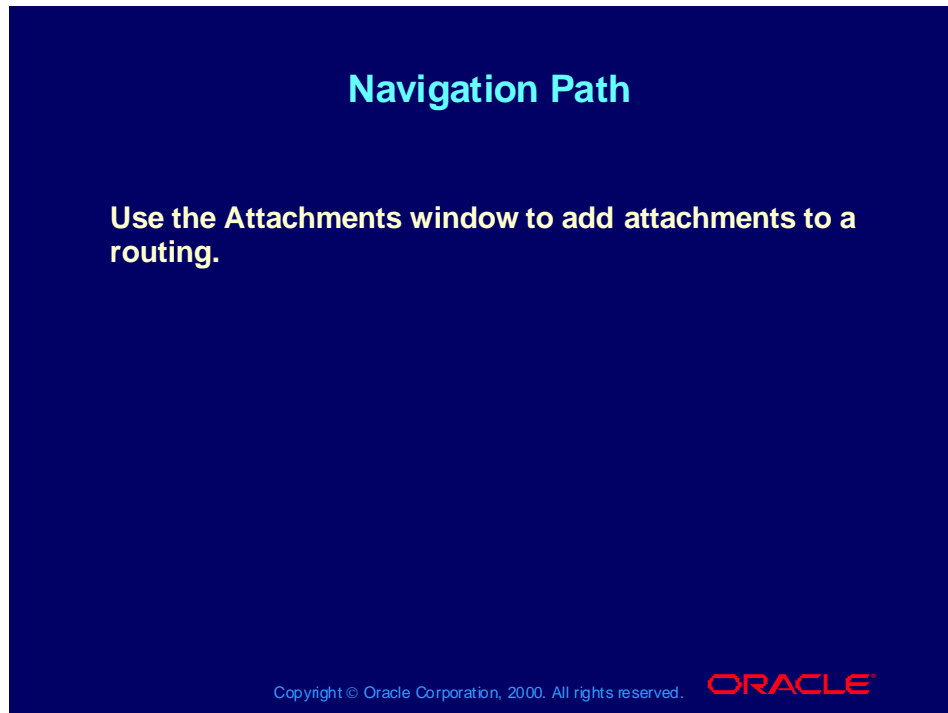
In Oracle Engineering: (N) Prototypes > Routings > Routings (M) Edit > Attachments

In Oracle Bills of Material: (N) Routings > Routings (M) Edit > Attachments

(Help) Oracle Bills of Material > Routings > Defining a Routing > Attaching Files

Navigation Path

In Oracle Engineering: (N) Prototypes > Routings > Documents

In Oracle Bills of Material: (N) Routings > Documents

(Help) Oracle Bills of Material > Routings > Defining a Routing > Attaching Files > Related Topics > Defining Bill or Routing Operation Documents

Navigation Path

Navigation Path

Use the Tools menu bar choice to perform a variety of routing functions.
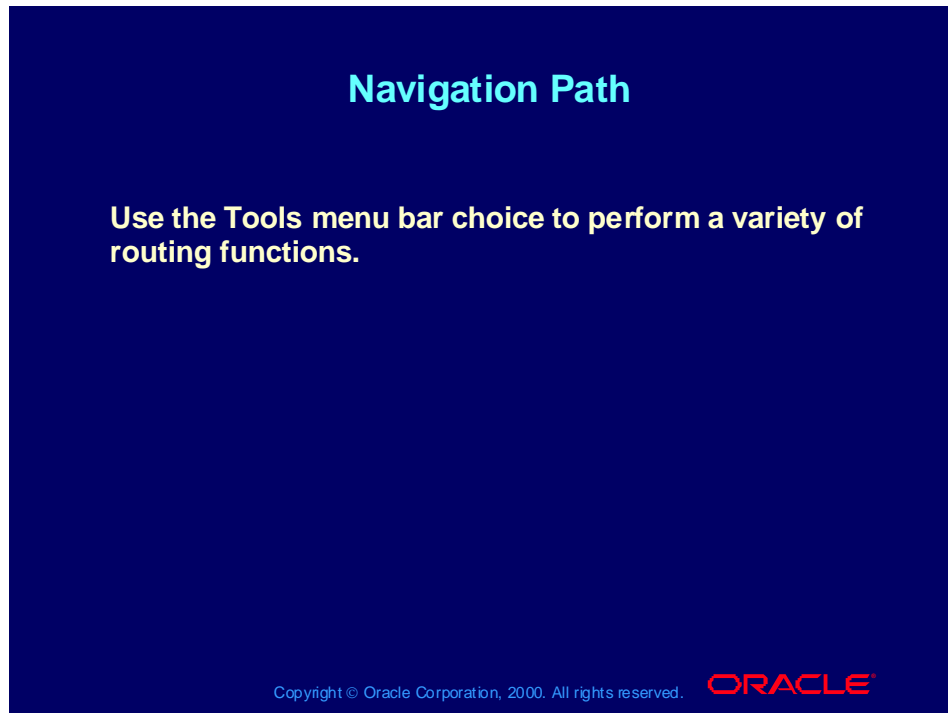
In Engineering: (N) Prototypes > Routings > Routings (M) Tools

In Bills of Material: (N) Routings > Routings (M) Tools

(Help) Oracle Bills of Material > Routings > Routings Reference > Tools menu

Common Routings
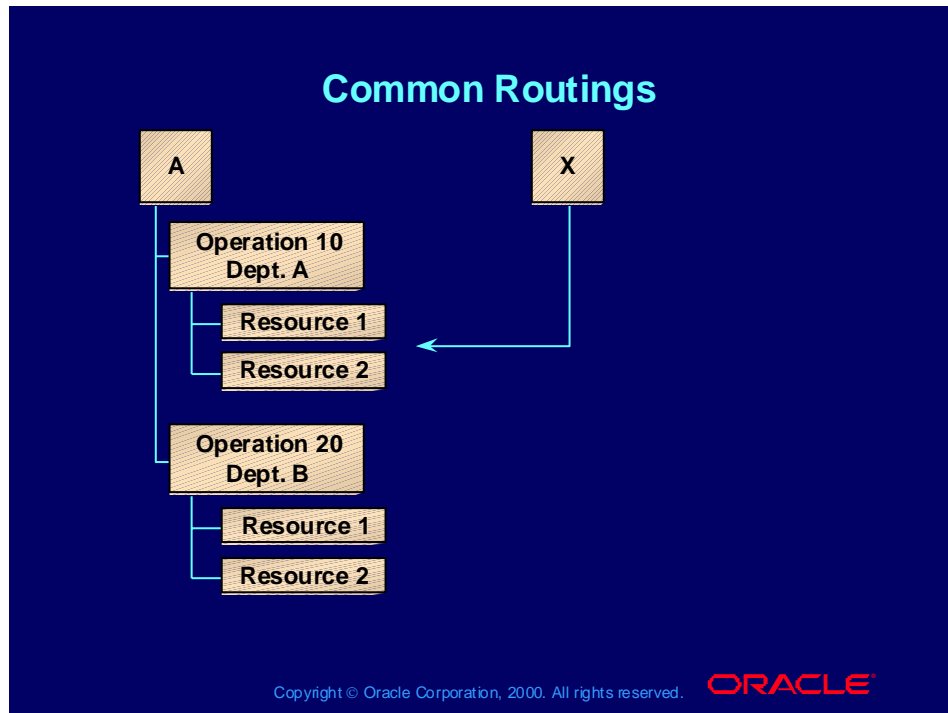
Creating Common Routings

If you need to have identical routings for more than one item, you can save time and reduce the necessity for maintenance by using the *common routing* feature.

The routing you reference contains the operations and resources. The routing that is referencing does not contain operations and resources; it contains a link to the referenced routing. Any function that uses or views the referencing routing will use or view the routing of the referenced routing.

Make all changes to the original routing. The routings that reference the common routing will reflect the changes.

Navigation Path

Navigation Path

Use the Common Routing window to assign an item to a common routing.

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In Oracle Engineering: (N) Prototypes > Routings > Routings (M) Tools > Assign Common Routing

In Oracle Bills of Material: (N) Routings > Routings (M) Tools > Assign Common Routing

(Help) Oracle Bills of Material > Routings > Defining a Routing > Referencing Common Bills and Routings

Copy Routings

Copy Routings

Operation 10 Dept. A — Resource 1, Resource 2
Operation 20 Dept. B — Resource 1, Resource 2
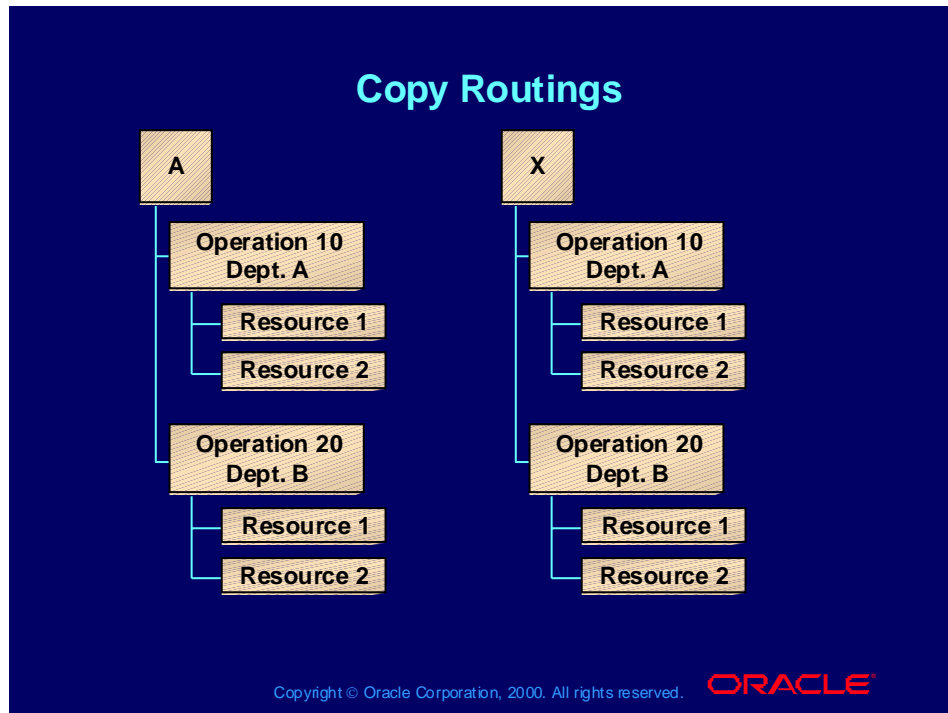
Copy Routings

When you want to create similar, alternate routings for and item, you can save time creating routings by using the Copy Routing feature.

You create a routing by copying from:

The same or a different item number

The primary or an alternate bill for that item number

The item from which you copy retains its operations and resources. The item to which you copy contains the same operations and resources as the item from which you copy.

You can change anything on the copied routing *except* the item number and the operation number.

After copying, the two routings are no longer related. If you change one routing, you do not see the same change in the other routing.

Navigation Path

Navigation Path

Use the Copy Routing window to copy the routing of one item as the routing of another item.
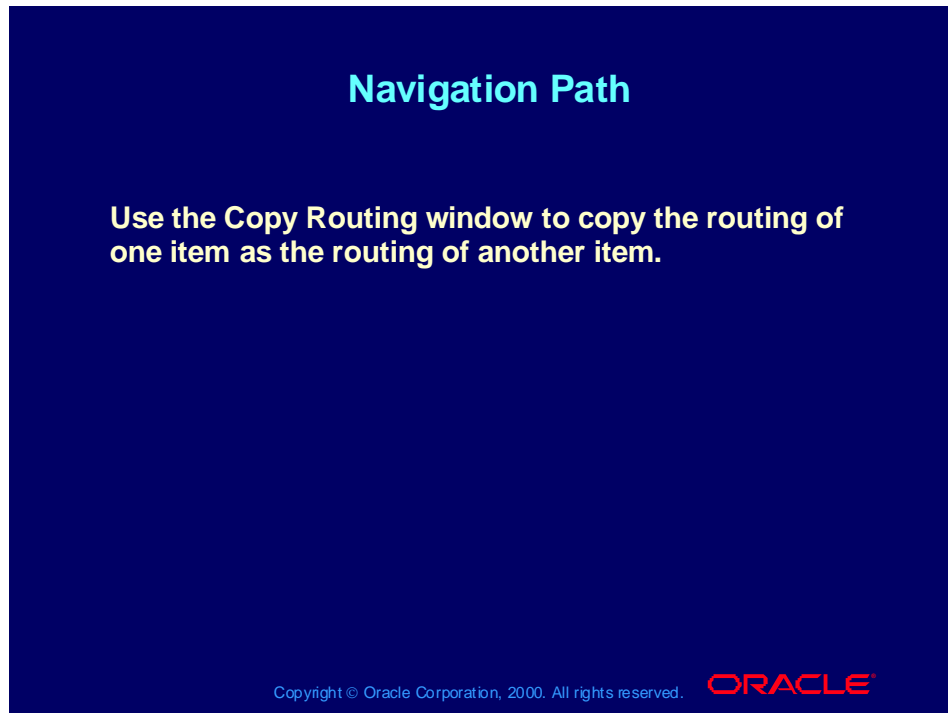
ORACLE

In Oracle Engineering: (N) Prototypes > Bills > Bills (M) Special > Copy Routing from

In Oracle Bills of Material: (N) Bills > Bills (M) Special > Copy Routing from

(Help) Oracle Bills of Material > Routings > Defining a Routing > Copying Bill & Routing Information

Routing Open Interface
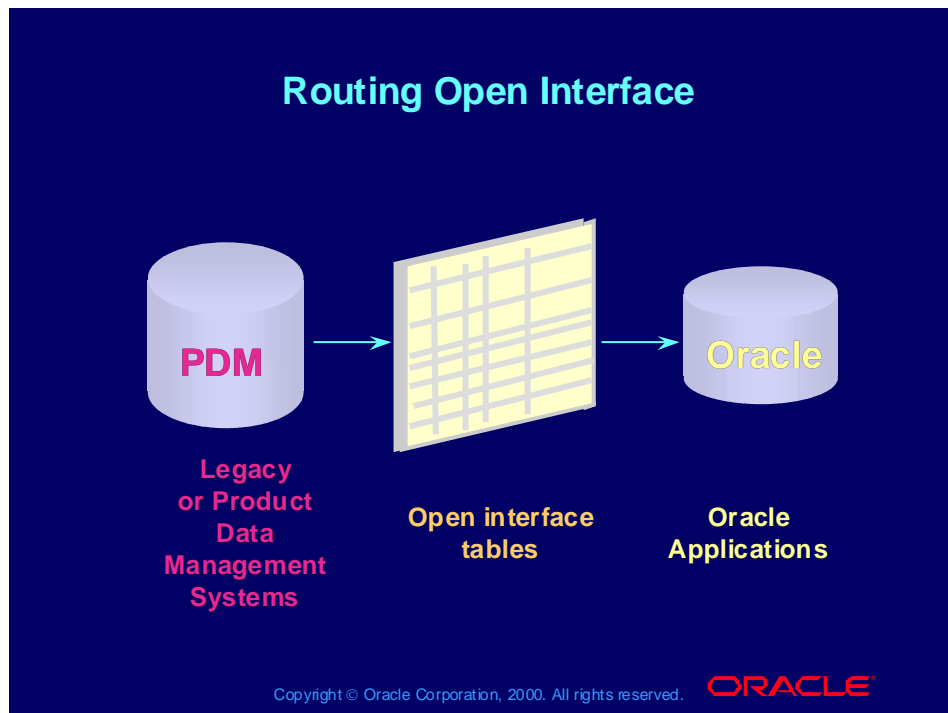
Navigation Path

Navigation Path

Use the Import Bills and Routings window to create, update, and delete routing information from external systems.

In Oracle Engineering: (N) Prototypes > Routings > Import

In Oracle Bills of Material: (N) Routings > Import

(Help) Oracle Bills of Material > Routings > Importing Bills and Routings

Practice 3 Overview

Practice 3 Overview

This practice covers creating routings.

Practice 3 Instructions

1. Create a routing for item XX1000 using the following tables:

Note: XX represents your team.

Operation Sequence	Department	Description
100	XX-PCFinal	Assemble PC
200	XX-PCFinal	Test PC

Operation Sequence	Resource Sequence	Name	Usage Rate or Amount	Basis	Assigned Units
100	10	XXAssblr	0.25	Item	4
200	10	XXTester	0.5	Item	1

Note: For each resource, use the following additional information:

•UOM: HR

•Schedule: Yes

•2. Create a routing for item XX1040 using the following tables:

•Operation Sequence	Department	Description
•100	XX-PCFinal	Assemble CPU Chassis
•200	XX-PCFinal	Test CPU Chassis

•Operation Sequence	Resource Sequence	Name	Usage Rate or Amount	Basis	Assigned Units
•100	10	XXAssblr	0.5	Item	4
•200	10	XXTester	1	Item	1

•**Note:** For each resource, use the following additional information:

•UOM: HR

•Schedule: Yes

•3. Create a routing for item XX2010 using the following tables:

•Operation Sequence	Department	Description
•100	XX-AutoIns	Machine install components
•200	XX-ManAssy	Hand install components
•300	XX-Test	Test motherboard

•Operation Sequence	Resource Sequence	Name	Usage Rate or Amount	Basis	Assigned Units
•100	10	XXInserter	2	Lot	1
•100	20	XXInserter	1	Item	1
•200	10	XXAsslbr	0.1	Item	10
•300	10	XXTester	2	Item	1

•**Note:** For each resource, use the following additional information:

•UOM: HR

•Schedule: Yes

•4. Return to your bill of material and assign routing operation sequences to your components.

Practice 3 Solution

Practice 3 Solution

1. Create a routing for item XX1000 using the following tables:

Note: XX represents your team.

Operation Sequence	Department	Description
100	XX-PCFinal	Assemble PC
200	XX-PCFinal	Test PC

Operation Sequence	Resource Sequence	Name	Usage Rate or Amount	Basis	Assigned Units
100	10	XXAssblr	0.25	Item	4
200	10	XXTester	0.5	Item	1

Note: For each resource, use the following additional information:

•UOM: HR

•Schedule: Yes

•**(N) Engineering > Prototypes > Routings > Routings**

•2. Create a routing for item XX1040 using the following tables:

•Operation Sequence	Department	Description
•100	XX-PCFinal	Assemble CPU Chassis
•200	XX-PCFinal	Test CPU Chassis

•Operation Sequence	Resource Sequence	Name	Usage Rate or Amount	Basis	Assigned Units
•100	10	XXAssblr	0.5	Item	4

•200   10   XXTester   1   Item   1

•**Note:** For each resource, use the following additional information:

•UOM: HR

•Schedule: Yes

•**(N) Engineering > Prototypes > Routings > Routings**

•3. Create a routing for item XX2010 using the following tables:

•Operation Sequence	Department	Description
•100	XX-AutoIns	Machine install components
•200	XX-ManAssy	Hand install components
•300	XX-Test	Test motherboard

•Operation Sequence	Resource Sequence	Name	Usage Rate or Amount	Basis	Assigned Units
•100	10	XXInserter	2	Lot	1
•100	20	XXInserter	1	Item	1
•200	10	XXAsslbr	0.1	Item	10
•300	10	XXTester	2	Item	1

•**Note:** For each resource, use the following additional information:

•UOM: HR

•Schedule: Yes

•**(N) Engineering > Prototypes > Routings > Routings**

•4. Return to your bill of material and assign routing operation sequences to your components.

•**(N) Engineering > Prototypes > Bills > Bills**

Review Question

Review Question

Engineering and manufacturing routing differ in all of the following areas except one. Which one is it?

1. Engineering attribute

2. Navigation path

3. Form title

4. Operation numbers

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Answer to Review Question

Answer to Review Question

Engineering and manufacturing routing differ in all of the following areas except one. Which one is it?

1. Engineering attribute

2. Navigation path

3. Form title

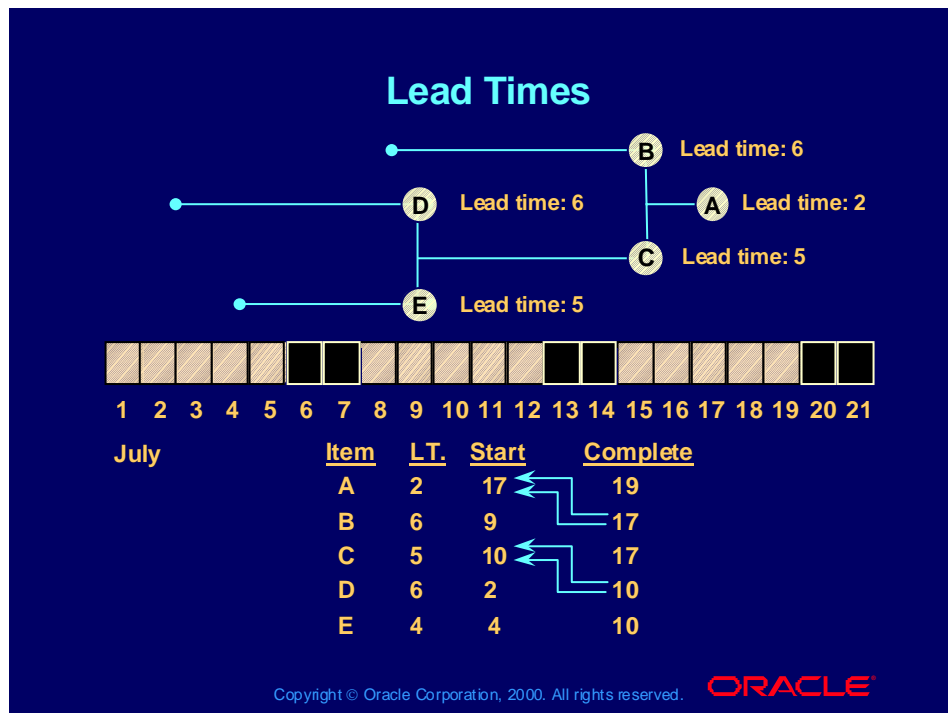**4. Operation numbers**

Agenda

Agenda

- Introduction
- Overview
- Maintaining the workday calendar
- Defining resources and departments
- Creating routings
- **Calculating lead times**
- Transferring product information
- Summary

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Lead Times

Lead Times

Plan material and resource requirements and determine requirement dates for available-to-promise calculations using dynamic lead times.

Dynamic Lead Time Offsetting: Estimate the start date of an order, an operation, or a resource based on order quantity, lead times, and the workday calendar.

Detailed Scheduling: Schedule jobs to the minute based on detailed resource availability and usages. Oracle Bills of Material calculates manufacturing lead times using detailed scheduling. Detailed scheduling is the most precise scheduling method in Oracle Manufacturing.

Lead Time Attributes
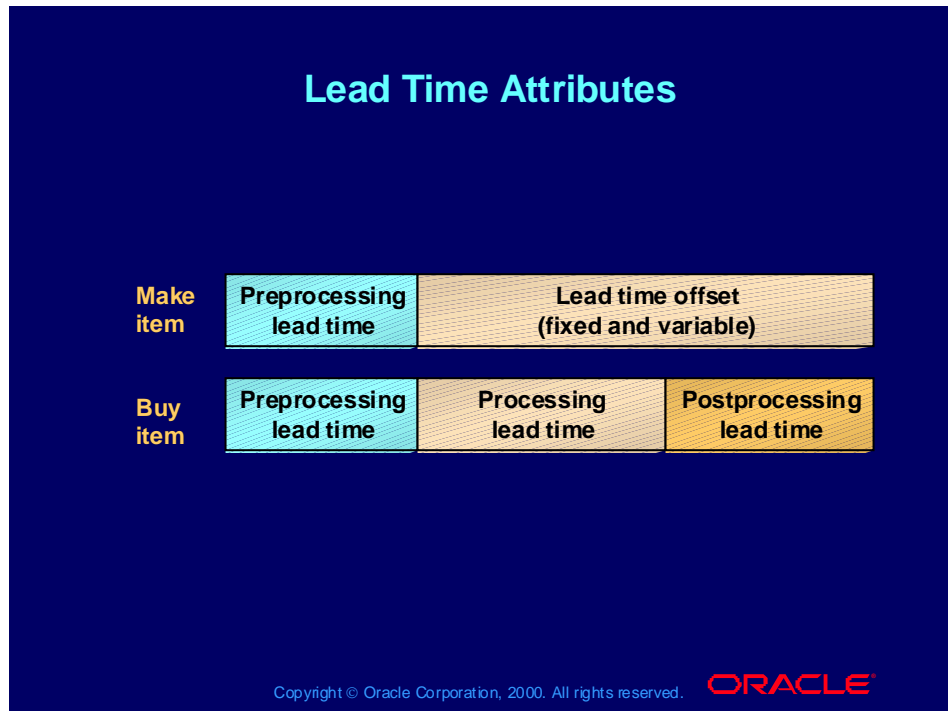
Lead Time Attributes

Preprocessing Lead Time: Represents the time required to release a purchase order or a job from the time you learn of the requirement.

Postprocessing Lead Time: Represents the time to make a purchased item available in inventory from the time you receive it: you manually enter postprocessing lead time for each purchased item.

Processing Lead Time: Time required to procure or manufacture an item; processing lead time includes the fixed and variable portions of lead times.

Cumulative Manufacturing Lead Time: Total time required to make an item if you had all raw materials in stock but had to make all subassemblies level by level; Oracle automatically calculates this value.

Cumulative Total Lead Time: Total time required to make an item if no inventory existed and you had to order all the raw materials and make all subassemblies level by level; Oracle automatically calculates this value.

Lead Time Values
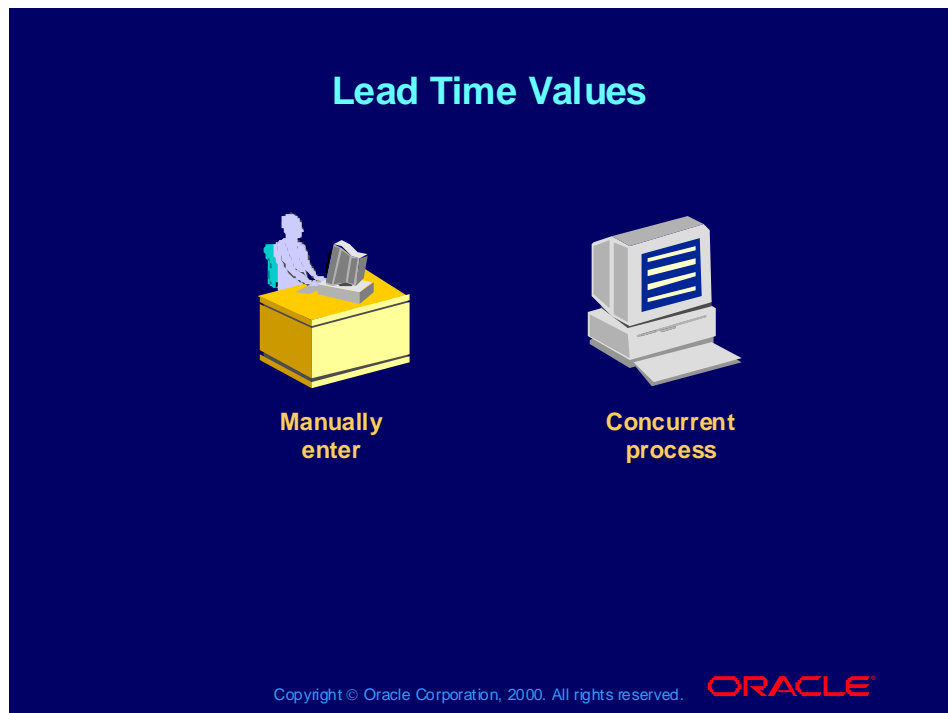
Assigning Lead Time Values
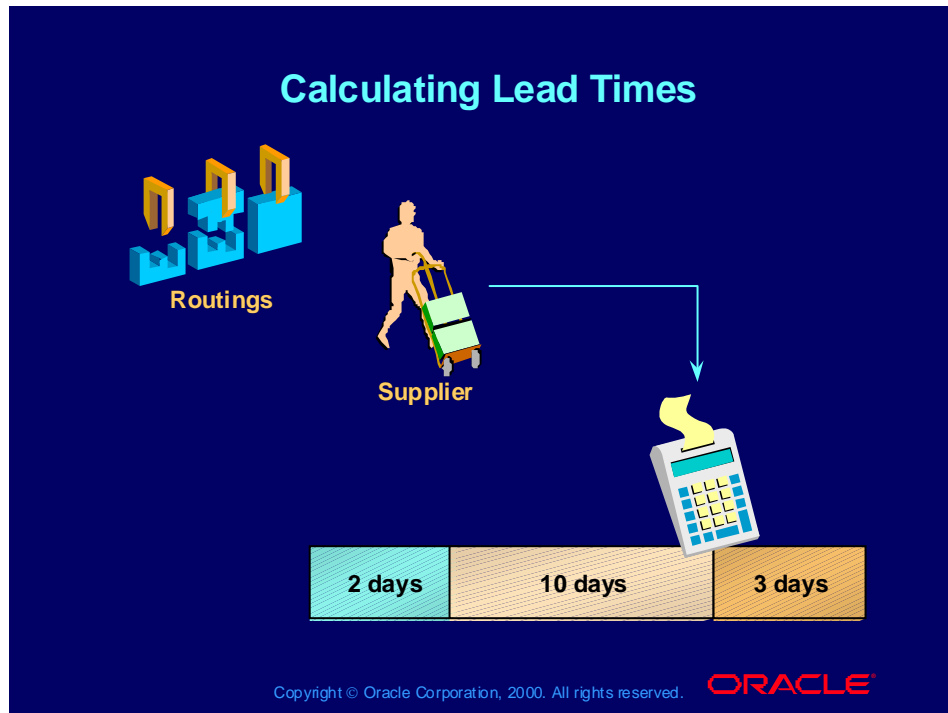
To assign values to lead time attributes, you can do either of the following:

- Manually enter them.
- For make items, start concurrent processes that calculate them. These processes replace values that you have manually entered with calculated values.

Calculating Lead Times

Calculating Lead Times

Routings

Supplier

| 2 days | 10 days | 3 days |

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The Lead Time Calculation Process

Use the following process if you want Oracle Engineering or Oracle Bills of Material to calculate lead time information:

- For buy items, manually enter preprocessing, processing, and postprocessing attributes.
- For make items, enter routings and manually enter preprocessing and lead time lot size attributes.
- Start the concurrent process Calculate Manufacturing Lead Times, which calculates the fixed, variable, processing, lead time percentage, and offset percentage attributes.
- Start the concurrent process Roll Up Cumulative Lead Times, which calculates the cumulative manufacturing and cumulative total attributes.

Lead Time Lot Size

Lead Time Lot Size

Value Assigned	Attribute	Value for Lead Time Lot Size
YES	Fixed Order Quantity	Fixed Order Quantity
YES	Min-Max Order Quantity	Average Order Quantity
YES	Standard Lot Size	<none>

Lead Time Lot Size

Specify the quantity to use when calculating dynamic manufacturing lead times based on how you plan and cost the item.

Lead Time Lot Size Item Attribute

Schedule the first job in dynamic lead time calculations for the quantity of zero and to schedule the second job in dynamic lead time calculations for the lead time lot size.

No Lead Time Lot Size Assigned

You use default standard lot size, which defaults to the item's standard lot size attribute if there is no lead time lot size entered in the lead times region of this form. The default lead time lot size of "1" will default the item's lead time lot size to "1" if there is no standard lot size.

Value Assigned	Attribute	Value for Lead Time Lot Size
YES	Fixed Order Quantity	Fixed Order Quantity
YES	Min-Max Order Quantity	Average Order Quantity
YES	Standard Lot Size	None

Manufactured Item Lead Times

	Manually Assign	Auto Calculate	Lead Time Offset	Used for Time Fences
Attribute				
Preprocessing	YES			
Processing		YES		
Postprocessing				
Fixed		YES	YES	
Variable		YES	YES	
Cumulative Mfg		YES		YES
Cumulative Total		YES		YES
Lead Time Lot Size	YES			

Manufacturing Lead Times

Oracle Engineering computes the fixed and variable portion of manufacturing (processing) lead time using routings and detailed scheduling.

Calculate Processing Lead Time for Manufactured Items

Schedule one discrete job for a quantity of zero (fixed lead time), and a second discrete job for the lead time lot size quantity (variable lead time).

When computing processing lead time, engineering schedules all calendar days as workdays, regardless of days off or workday exceptions.

Fixed and Variable Lead Time

Fixed lead time is defined as the portion of time required to build an assembly that is independent of order quantity. Setup and teardown are examples of fixed lead time.

Variable lead time is defined as the time required to produce one additional unit of an assembly

Oracle Manufacturing uses an item's fixed lead time and variable lead time in dynamic lead time offset calculations.

Manufactured Item Lead Time Percentage

Manufactured Item Lead Time Percentage

Operation Sequence	Operation Description	Duration (1 LTLS)	Start Day	Lead Time Percentage
10	Assemble Chassis Base	5	1	0%
20	Mount Motherboard	3	6	50%
30	Package Product	2	9	80%

Reference Information
Processing Lead Time = 10 days
LTLS - Lead Time Lot Size

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Manufacturing Lead Times (continued)

Oracle Manufacturing computes resource and operation offsets automatically when calculating Manufacturing Lead Time.

Operation Lead Time Percentage

Engineering automatically calculates the percentage of total manufacturing lead time required for previous operations, calculated from the start of a job to the start of an operation. You can override lead time percent calculations in the main region of the engineering routings window.

Schedule material to arrive when an operation requires it. Oracle Master Scheduling/MRP uses offsets to determine when an operation requires material.

Manufactured Item Resource Offsets

Manufactured Item Resource Offsets

Op Seq	Res Seq	Resource Description	Duration (1 LTLS)	Start Day	Offset Percentage
10	1	Assemble chassis	5	1	0%
20	1	Detailed system test	1	6	50%
20	2	Assemble	2	7	60%
30	1	Pack	2	9	80%

Reference Information

Op Seq = Operation Sequence

Res Seq = Resource Sequence

Processing Lead Time = 10 days

**LTLS - Lead Time Lot Size**

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Resource Offsets

Oracle Engineering automatically calculates the percentage of total manufacturing lead time required for previous operations, calculated from the start of the job to the start time of a resource at an operation. You can override offset percentage calculations in the Resource zone of the Define Engineering routing form.

Schedule Resources

Schedule resources at an operation exactly when they are required. Oracle Capacity uses operation and resource offsets, as well as detailed usage information, to plan operation resources.

Cumulative Manufacturing Lead Time
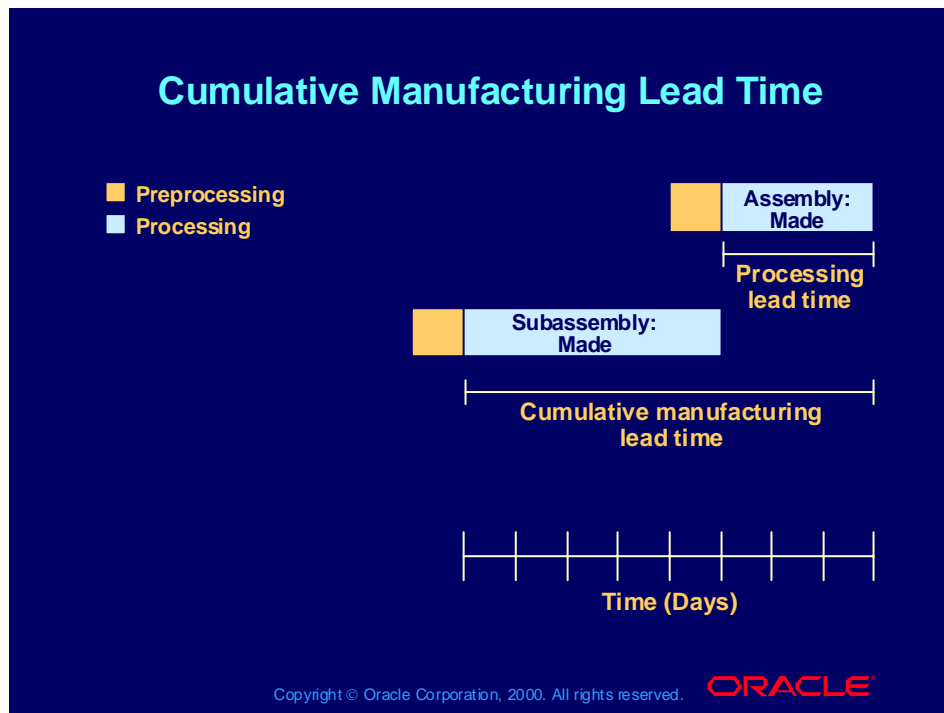
Rollup Lead Times

Cumulative manufacturing lead time formula:

Cumulative manufacturing lead time = Manufacturing lead time for item + maximum [(Cumulative manufacturing lead time – Offset days of any component)]

Set planning time fences for items based on cumulative manufacturing or cumulative total lead time.

Cumulative manufacturing lead time: The total time required to make an item if you had all raw materials in stock but had to make all subassemblies level by level. Engineering automatically calculates this value.

Cumulative total lead time: The total time required to make an item if no inventory existed and you had to order all the raw materials and make all the subassemblies level by level. Engineering automatically calculates this value.

Compute cumulative manufacturing lead time: Calculate the maximum component cumulative manufacturing lead time less operation offset. Cumulative manufacturing lead time for a purchased item is zero.

Cumulative Total Lead Time
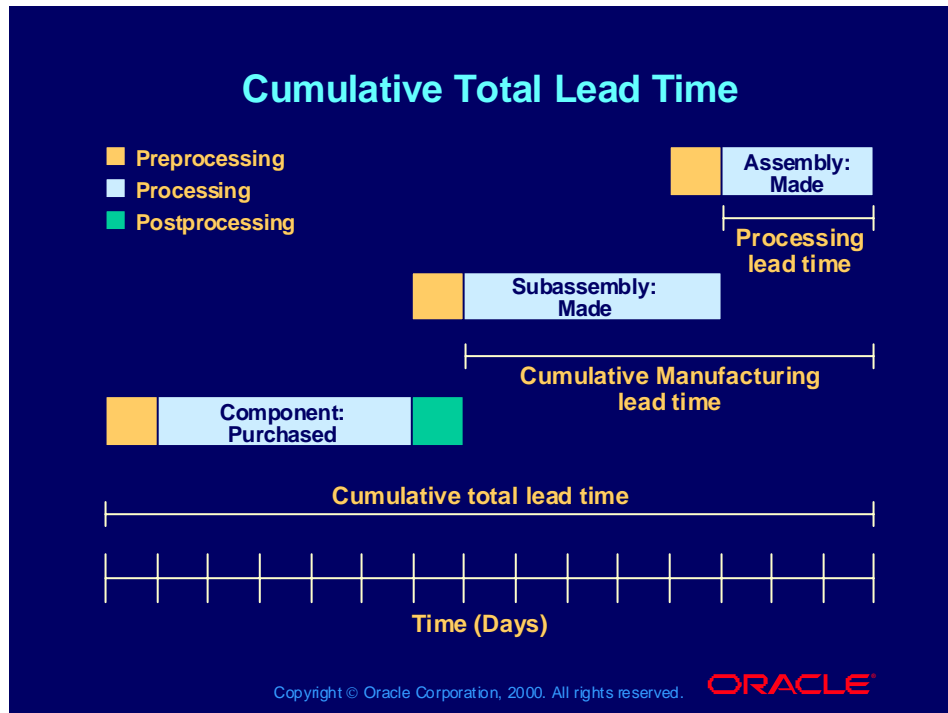
Cumulative Total Lead Time Formula

Cumulative total lead time = Total lead time for item + Maximum [(Cumulative total lead time – Offset days for any component)]

Compute Cumulative Total Lead Time

Calculate an item's own total lead time plus the maximum value of cumulative total lead time operation offset for any component.

For cumulative calculations, include the postprocessing lead time for a purchased item.

Navigation Path

In Oracle Engineering:

•**Engineering Master Items: (N) Prototypes > Items > Master Items**

•**Engineering Organization Items: (N) Prototypes > Items > Organization Items**

•**In Oracle Inventory:**

•**Master Items: (N) Items > Master Items**

•**Organization Items: (N) Items > Organization Items**

•**(Help) Oracle Inventory > Items > Item Attribute Descriptions > Lead Times Attribute Group**

•**(Help) Oracle Inventory > Items > Defining Items**

Navigation Path

Navigation Path

Use the following windows to set routing lead time percentage:
- **Engineering Routings in Oracle Engineering**
- **Routings in Oracle Bills of Material**

In Oracle Engineering: (N) Prototypes > Routings > Routings

In Oracle Bills of Material: (N) Routings > Routings

(Help) Oracle Bills of Material > Routings > Defining a Routing > Creating a Routing
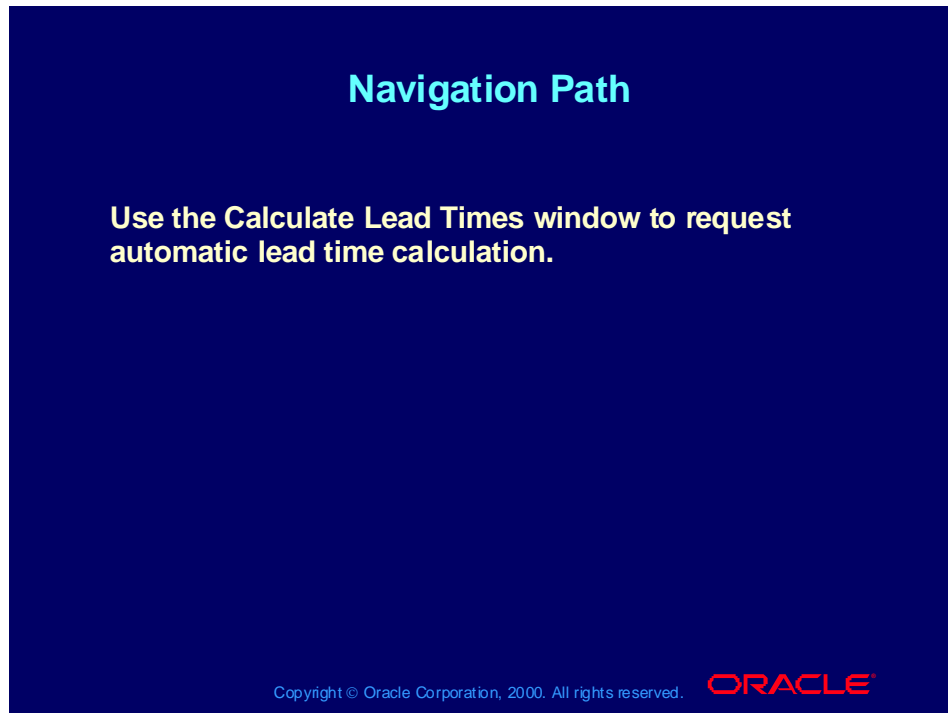
Navigation Path

In Oracle Engineering: (N) Prototypes > Routings > Routings (B) Operation Resources

In Oracle Bills of Material: (N) Routings > Routings (B) Operation Resources

(Help) Oracle Bills of Material > Routings > Defining a Routing > Assigning Operation Resources

Navigation Path

In Oracle Engineering: (N) Prototypes > Routings > Lead Times

In Oracle Bills of Material: (N) Routings > Lead Times

(Help) Oracle Bills of Material > Lead Tine Management > Calculating Lead Times

(Help) Oracle Bills of Material > Lead Tine Management > Rolling Up Lead Times

Practice 4 Overview

Practice 4 Instructions

1. Enter lead times for your buy items using the following table:

Lot size for XXXX1000, XX1040, XX2010 is 100 pieces.

Item Number	Preprocessing LT	Processing LT	Postprocessing LT
XX1010	5	5	
XX1020	5	5	
XX1030	5	5	
XX2020	5	5	2
XX2030	5	5	
XX2040	5	5	
XX3010	5	10	2
XX3020	5	60	1
XX3030	5	5	
XX3040	5	30	1

2. Calculate lead time for items XX2010, XX1040, and XX1000.

3. View fixed, variable, and processing lead times for items XX2010, XX1040, and XX1000.

Note

• One hour of lead time = 1/24 = 0.0416667 day

• Two hours of lead time = 2/24 = 0.0833333 day

- Four hours of lead time = 4/24 = 0.166666 day
- Eight hours of lead time = 8/24 = 0.333333 day
- Twelve hours of lead time = 12/24 = 0.5 day
- Twenty-four hours of lead time = 24/24 = 1 day
- 4. Roll up lead time for item XX1000.
- 5. View cumulative lead times for item XX1000.
- 6. View indented bill of material for XX1000.

Practice 4 Solution

Practice 4 Solution

Enter and calculate lead times.

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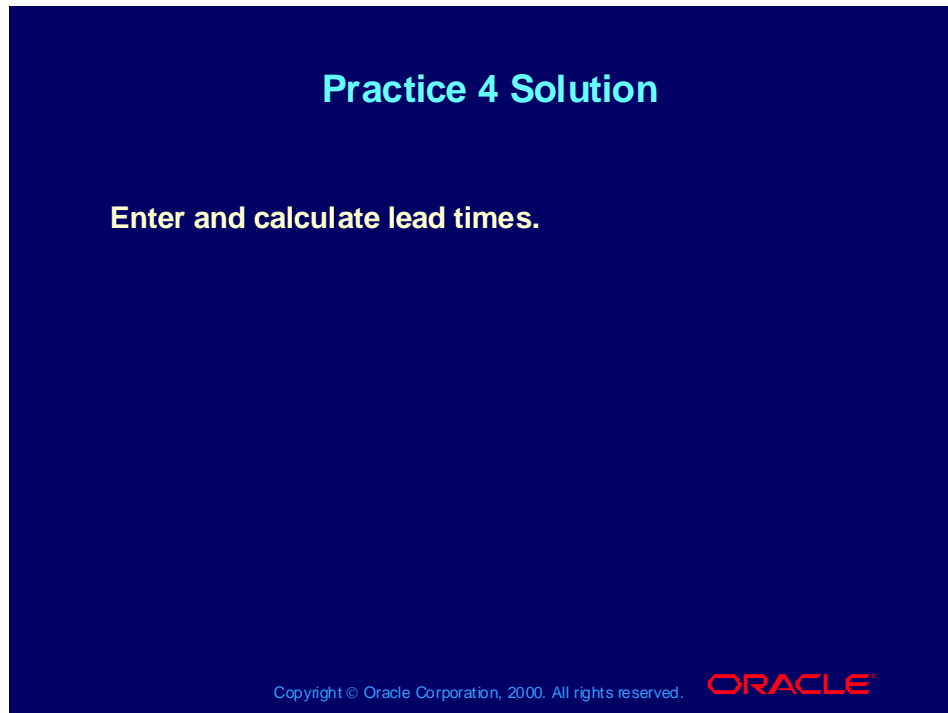
Practice 4 Solution

1. Enter lead times for your buy items using the following table:

(N) Engineering > Prototypes > Items > Master Items (M) Tools > Organization Assignment (B) Org Attributes (T) Lead Times

Lot size for XX1000, XX1040, XX2010 is 100 pieces.

Item Number	Preprocessing LT	Processing LT	Postprocessing LT
XX1010	5	5	
XX1020	5	5	
XX1030	5	5	
XX2020	5	5	2
XX2030	5	5	
XX2040	5	5	
XX3010	5	10	2
XX3020	5	60	1
XX3030	5	5	
XX3040	5	30	1

2. Calculate lead time for items XX2010, XX1040, and XX1000.

(N) Engineering > Prototypes > Routings > Lead Times

3. View fixed, variable, and processing lead times for items XX2010, XX1040, and XX1000.

(N) Engineering > Prototypes > Items > Master Items (M) Tools > Organization Assignment (B) Org Attributes (T) Lead Times

Note:

•One hour of lead time = 1/24 = 0.0416667 day

•Two hours of lead time = 2/24 = 0.0833333 day

•Four hours of lead time = 4/24 = 0.166666 day

•Eight hours of lead time = 8/24 = 0.333333 day

•Twelve hours of lead time = 12/24 = 0.5 day

•Twenty-four hours of lead time = 24/24 = 1 day

•4. Roll up lead time for item XX1000.

•(N) Engineering > Prototypes > Routings > Lead Times

•5. View cumulative lead times for item XX1000.

•(N) Engineering > Prototypes > Items > Master Items (M) Tools > Organization Assignment (B) Org Attributes (T) Lead Times

•6. View indented bill of material for item XX1000.

•(N) Engineering > Prototypes > Bills > Indented Bills

Review Question

If you want to automatically calculate the lead time of a manufactured item, which of the following lead times must you enter?

1. Preprocessing

2. Fixed

3. Postprocessing

4. Processing

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Answer to Review Question

Answer to Review Question

If you want to automatically calculate the lead time of a manufactured item, which of the following lead times must you enter?

1. Preprocessing

2. Fixed

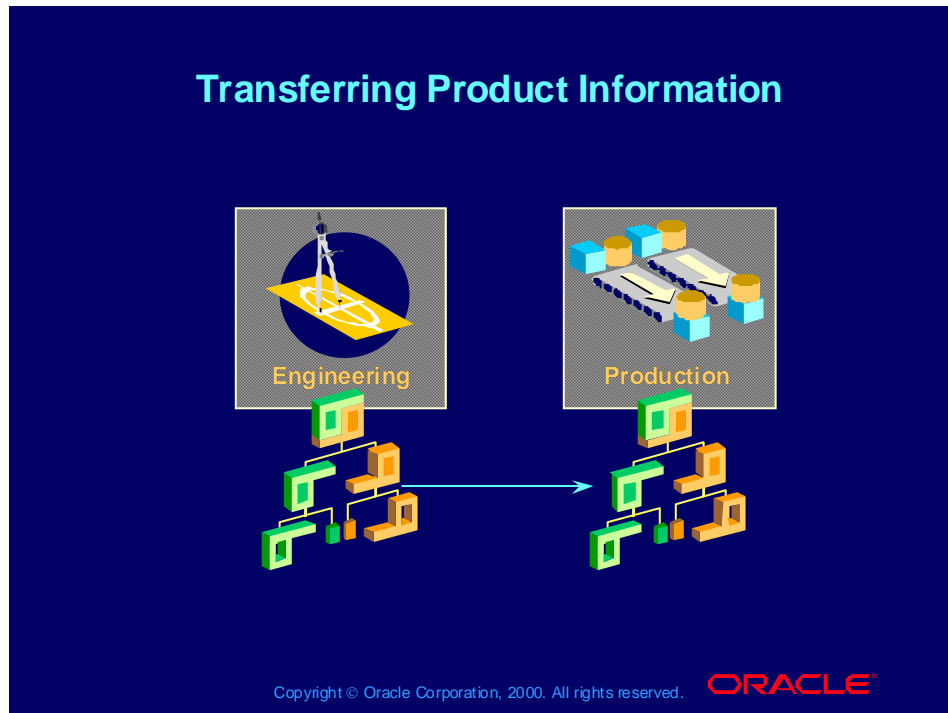3. Postprocessing

4. Processing

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Agenda

Agenda

- Introduction
- Overview
- Maintaining the workday calendar
- Defining resources and departments
- Creating routings
- Calculating lead times
- **Transferring product information**
- Summary

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Transferring Product Information

Transferring Product Information

Transferring Product Information

When you decide that engineering information is ready for production, you transfer the product information—items, bills of material, and routings— from engineering to manufacturing.

When you transfer engineering information, you transform the engineering item into a manufacturing item and the engineering item ceases to exist.

When you copy engineering information, you save the engineering information and copy it to manufacturing as another item number.

The transfer and copy sequence is a one-way process. You cannot transfer or copy product information from manufacturing to engineering.

Navigation Path

Navigation Path

Use the Transfer to Manufacturing window to transfer engineering prototype items, bills of material, and routings to production.

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In Oracle Engineering: (N) Prototype > Transfer to Manufacturing

(Help) Oracle Engineering > Engineering Prototype Environment > Transferring or Copying Engineering Items
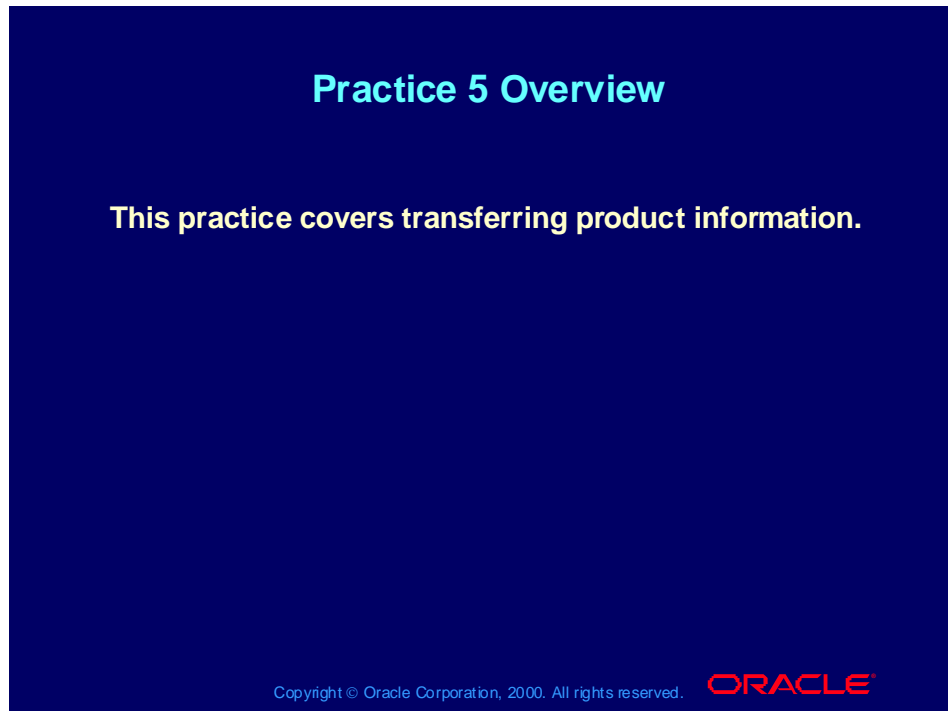
Navigation Path

In Oracle Engineering: (N) Prototype > Copy to Manufacturing

(Help) Oracle Engineering > Engineering Prototype Environment > Transferring or Copying Engineering Items

Practice 5 Overview

Practice 5 Instructions

1. Transfer bills of material and routings for item numbers XX2010, XX1040, and XX1000 from engineering to production.
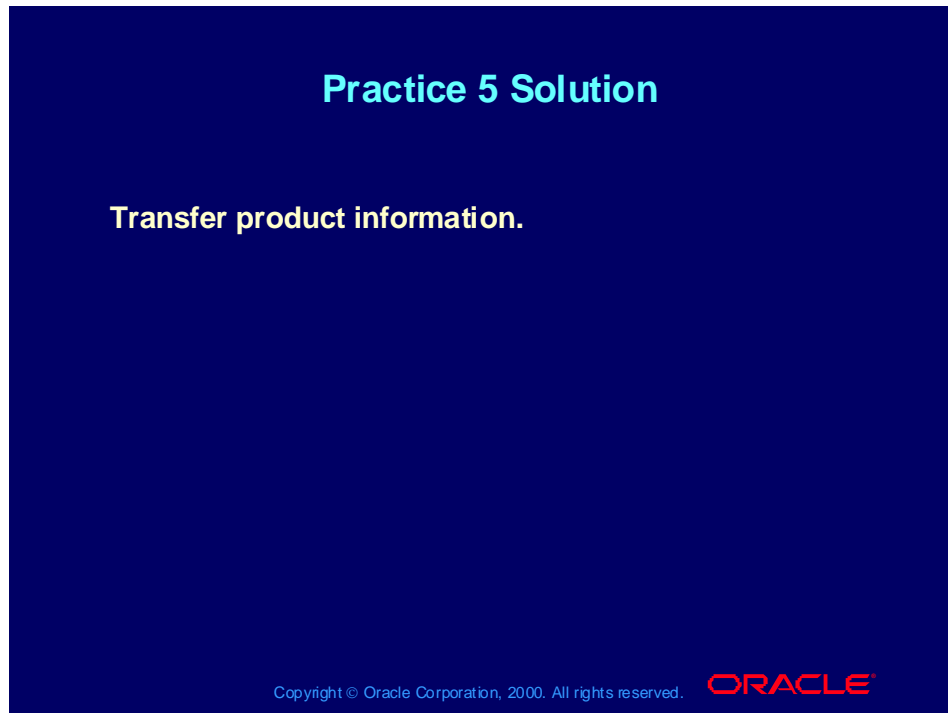
Note: XX represents your team.

2. To verify the transfers, view XX1000 on the following forms and indicate whether or not you are able to use each form to see the items:

•Oracle Inventory Master Items

•Oracle Engineering Master Items

•Oracle Inventory View Item Attributes

•Oracle Engineering View Item Attributes

•Oracle Bills of Material

•Oracle Engineering Bill of Material

•Oracle Bills of Material Indented Bills

•Oracle Engineering Indented Bills

•Oracle Bills of Material Routings

•Oracle Engineering Routings

•3. Copy item XX2011 and give it a new name using item number XX2022. View your results.

Practice 5 Solution

Practice 5 Solution

1. Transfer bills of material and Routings for item numbers XX2010, XX1040, and XX1000 from engineering to production.

Note: XX represents your team.

(**N**) **Engineering > Prototypes > Transfer to Manufacturing**

2. To verify the transfers, view XX1000 on the following forms and indicate whether or not you are able to use each form to see the items:

• Oracle Inventory Master Items

• **(N) Inventory > Items—>Master Items; not able to see the items**

• Oracle Engineering Master Items

• **(N) Engineering > Prototypes—>Items—>Master Items; able to see the items**

• Oracle Inventory View Item Attributes

• **(N) Inventory > Items—>Item Information; able to see the items**

• Oracle Engineering View Item Attributes

• **(N) Engineering > Prototypes—>Items—>View Item Details; able to see the items**

• Oracle Bills of Material Bill of Material

• **(N) Bills of Material > Bills—>Bills; able to see the items**

• Oracle Engineering Bill of Material

• **(N) Engineering > Prototypes—>Bills—>Bills; not able to see the items**

•Oracle Bills of Material Indented Bills

•**(N) Bills of Material > Bills—>Indented Bills; able to see the items**

•Oracle Engineering Indented Bills

•**(N) Engineering > Prototypes—>Bills—>Indented Bills; able to see the items**

•Oracle Bills of Material Routings

•**(N) Bills of Material > Routings—>Routings; able to see the items**

•Oracle Engineering Routings

•**(N) Engineering > Prototypes—>Routings—>Routings; not able to see the items**

•3. Copy item XX2011 and give it a new name using item number XX2022. View your results.

•**(N) Engineering > Prototype > Copy to Manufacturing**

Review Question

Answer to Review Question

Answer to Review Question

In which of the following transfer functions does the engineering item remain?

1. Assign common routing

2. Transfer to manufacturing

3. Copy to manufacturing

4. Roll-up lead times

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Agenda

Agenda

- Introduction
- Overview
- Maintaining the workday calendar
- Defining resources and departments
- Creating routings
- Calculating lead times
- Transferring product information
- **Summary**

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Summary

Summary

In this module, you should have learned how to:

- **Maintain the workday calendar**
- **Define resources and departments**
- **Create routings**
- **Calculate lead times**
- **Transfer product information**

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