

Create and Update Discrete Jobs

Student Guide

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Author Bill Figini

Technical Contributors and Reviewers

Pam Freeman

Barry Kuhl

John Paramore

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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 *<insert information specific to this course>*
- Working experience with *<insert information specific to this course>*

Prerequisites

- *<insert prerequisites from the course description, including any suggested preparation courses>*
- *<if there are no prerequisites, insert the following sentence:>* There are no prerequisites for this course.

How This Course Is Organized

<Course Title> 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
<i><insert></i>	<i>Axxxxxx</i>
<i><insert></i>	<i>Axxxxxx</i>
<i><insert></i>	<i>Axxxxxx</i>
<i><insert></i>	<i>Axxxxxx</i>

Additional Publications

- System release bulletins
- Installation and user's guides
- *read.me* files
- Oracle Applications User's Group (OAUG) articles
- *Oracle Magazine*

Typographic Conventions

Typographic Conventions in Text

Convention	Element	Example
Bold italic	Glossary term (if there is a glossary)	The <i>algorithm</i> 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: <code>debug.set ('I', 300);</code> Directory: <code>bin</code> (DOS), <code>\$FMHOME</code> (UNIX) Filename: Locate the <code>init.ora</code> file. Password: User <code>tiger</code> as your password. Pathname: Open <code>c:\my_docs\projects</code> URL: Go to <code>http://www.oracle.com</code> User input: Enter <code>300</code> Username: Log on as <code>scott</code>
Initial cap	Graphics labels (unless the term is a proper noun)	Customer address (<i>but</i> Oracle Payables)
Italic	Emphasized words and phrases, titles of books and courses, variables	Do <i>not</i> save changes to the database. For further information, see <i>Oracle7 Server SQL Language Reference Manual</i> . Enter <code>user_id@us.oracle.com</code> , where <i>user_id</i> 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 <i>role</i>
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—

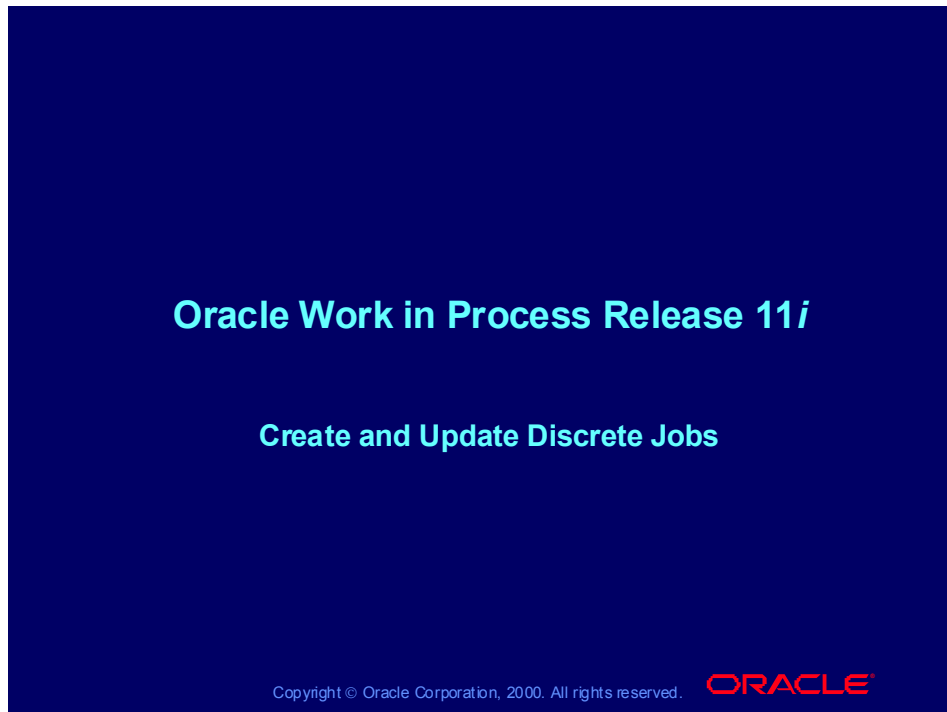
(Help) General Ledger > Journals > Enter Journals

—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.

Create and Update Discrete Jobs

Chapter 1



Notations:

N = Navigator

T = Tab

M = Menu

I = Icon

H = Hyperlink

B = Button

Help = Oracle Applications Help System

Objectives

After this course, you should be able to do the following:

- Manually define discrete jobs using the Discrete Jobs window
- Create requirements and operations for a job
- Import and implement planned orders from any source into Oracle Work in Process
- Update the job header information

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Objectives (continued)

- Update the material requirements, operations, and resource requirements for a discrete job
- Describe the differences between nonstandard and standard discrete jobs
- Use nonstandard jobs to upgrade assemblies

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Agenda

Agenda

- **Lesson 1: Overview**
- **Lesson 2: Manually define discrete jobs**
- **Lesson 3: Create operations, resource requirements, and material requirements**
- **Lesson 4: Implement planned orders**
- **Lesson 5: Updating discrete jobs**

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Agenda (continued)

Agenda (continued)

- **Lesson 6: Simulate and save a discrete job**
- **Lesson 7: Using nonstandard discrete jobs**
- **Lesson 8: Summary**

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Agenda

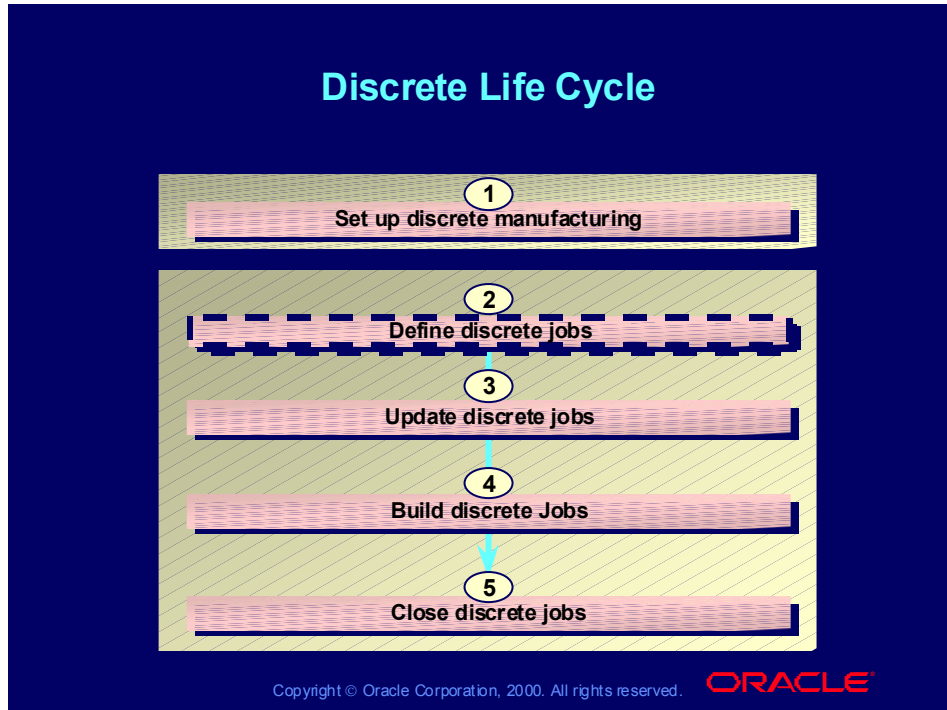
Agenda

- **Lesson 1: Overview**
- Lesson 2: Manually define discrete jobs
- Lesson 3: Create operations, resource requirements, and material requirements
- Lesson 4: Implement planned orders
- Lesson 5: Updating discrete jobs

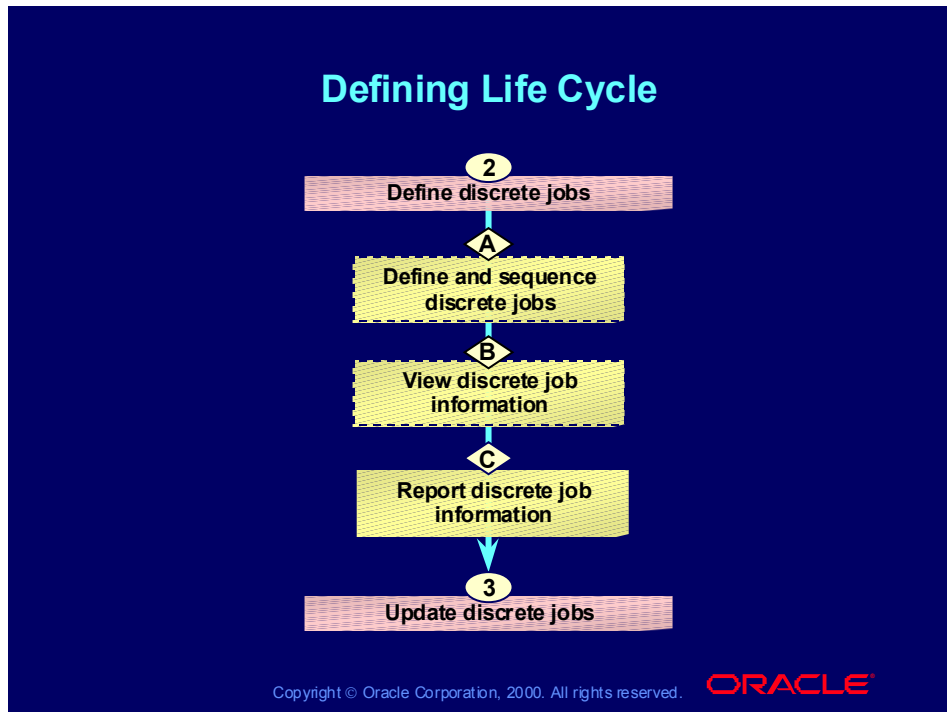
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Discrete Life Cycle



Defining Life Cycle



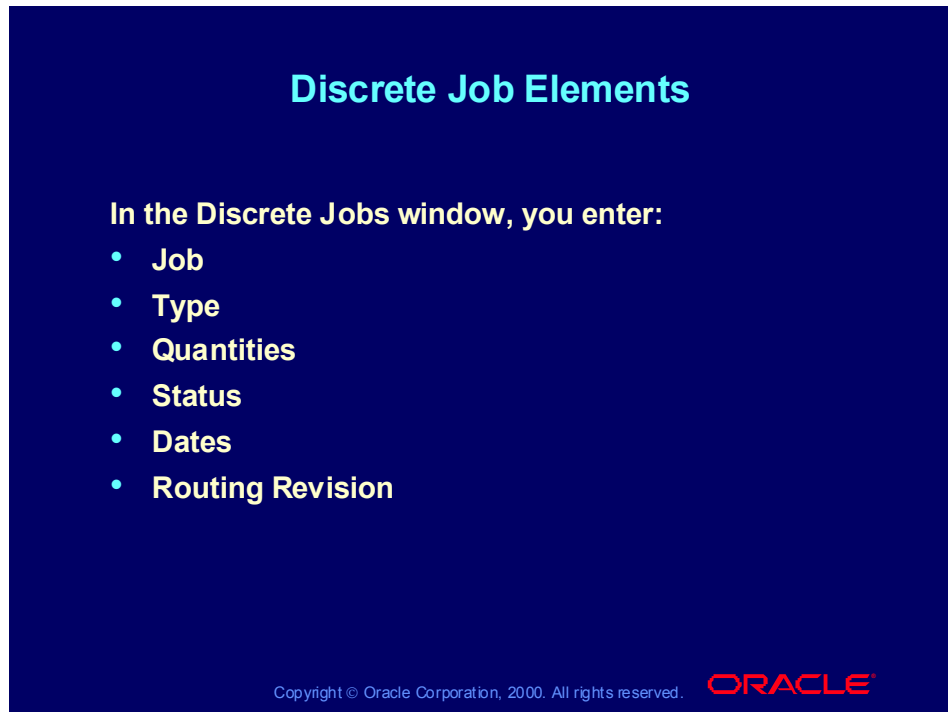
Agenda

Agenda

- Lesson 1: Overview
- **Lesson 2: Manually define discrete jobs**
- Lesson 3: Create operations, resource requirements, and material requirements
- Lesson 4: Implement planned orders
- Lesson 5: Updating discrete jobs

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Discrete Job Elements



Discrete Job Elements

In the Discrete Jobs window, you enter:

- Job
- Type
- Quantities
- Status
- Dates
- Routing Revision

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(N) WIP > Discrete > Discrete Jobs

(Help) Oracle Manufacturing Applications > Oracle Work in Process > Discrete Manufacturing > Creating Discrete Jobs > Defining Discrete Jobs Manually

Discrete Job Elements

- **Completion Subinventory**
- **Bill Revision**
- **Job Attachments**

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Job

Job Name uniquely identifies the job for the following purposes:

- **Issuing components**
- **Moving, scrapping, and completing assemblies**
- **Charging resources and overheads**
- **Defining and updating job definition**
- **Historical reports**

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Job (continued)

- You can automatically generate the job name based on the **WIP: Discrete Job Prefix** profile option and the automatic sequence generator by choosing **Apply Default Job Name** from the Tools menu.
- You have the option to specify whether you can update the names of the existing jobs based on the **WIP: Job Name Updatable** profile option. The options are **Yes** and **No**. This profile is predefined as **Yes** and is updatable at the site level only.

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Type: Standard

Type: Standard

Job Type of Standard identifies the job as being:

- **A discrete job that controls the material and operation requirements used to build assemblies and collect manufacturing costs**

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Type: Nonstandard

Nonstandard Job Type identifies the job as being:

- **A discrete job that controls the material and collects costs for miscellaneous activities, such as:**
 - **Rework**
 - **Field service repair**
 - **Upgrade**
 - **Disassembly**
 - **Maintenance**
 - **Engineering prototypes**

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Quantities

Job Quantities are used to determine:

- **Material requirements**
- **Department schedules**
- **Resource load**
- **Job dates**

The start quantity is assumed to be the completion quantity of the job.

MRP net quantity is viewed as supply coming from the discrete job on the scheduled completion date; it is defaulted from the start quantity.

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Status

- You can use Job Statuses to describe various stages in the life cycle of the discrete job. You can control the activities that you can perform on the job.
- Some statuses are assigned automatically by Oracle WIP. For example, when you complete a job into inventory, Oracle WIP assigns the status of Complete to the job.
- When defining a job, you can assign one of the following statuses: Unreleased, Released, or On Hold.

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User Statuses

User Status	Description
Unreleased	Default status when you define a job. The job is not released to the shop floor.
Released	The job is available to begin production.
Complete	You have completed the job but can still perform transactions on the job.
Complete—No Charges	You have completed the job and cannot perform any more transactions on the job.
On Hold	You have placed the job on hold and cannot perform any transactions on it.
Canceled	You have canceled the job before completing it. You cannot perform transactions on this job.
Closed	You have closed the job. No further activity on the job.

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Job Statuses

- These statuses are based on events. For example, when you complete the total quantity of a job into inventory, Oracle Work in Process automatically changes the status of the job to Complete.
- Statuses that can be reversed are: Unreleased, Released, Complete—No Charges, On Hold, Canceled, and Closed.

Processing Statuses

Processing Status	Description
Pending routing load	The concurrent process is loading the routing for the job.
Failed routing load	The concurrent process was unable to load the routing.
Pending bill load	The routing load was successful. The concurrent process is loading the bill for the job.
Pending scheduling	This status is associated with the Manufacturing Scheduling application.
Failed bill load	The concurrent process was unable to load the bill of material.
Pending close	The concurrent process is closing the job.
Failed close	The concurrent process was unable to close the job.

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Processing Statuses

Oracle Work in Process uses these statuses to keep track of the concurrent processing performed on a job.

Dates

Discrete Job Dates consist of the following:

- **Start date:** The date and time you plan to start the job.
- **Release date:** The date the discrete job is released to the shop floor.
 - This date is found in Job History.
 - You can change the job status to Released.
 - The job becomes transactable.

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Note:

You can choose a start date that is earlier than the current date in order to maintain relative date priorities for department schedules and material requirements.

Dates (continued)

Dates (continued)

- **Completion date:** The date and time you plan to complete production. This date is used for backward scheduling of your job.

Routing Revision

Routing Revision allows you to select which version of the routing you want to use to schedule the operations and resources. A snapshot is taken of the routing currently defined for the revision date you enter.

- **If the job is forward scheduled, the job start date is used as the default routing revision date.**
- **If the job is backward scheduled, the start date is estimated by the use of the fixed and variable lead-time elements. That estimated date then determines the revision and the revision date.**

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Completion Subinventory

Completion Subinventory

With the Completion Subinventory element, you can specify the subinventory in which completed assemblies will be housed. You can enter a locator if the subinventory is under locator control.

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Bill Revision

Similar to the Routing Revision, Bill Revision allows you to select any valid version of the bill of material you want to use to determine the material requirements for the job. A snapshot is taken of the bill of material currently defined for the revision date you enter.

- If the job is forward scheduled, the job start date is used as the default bill revision date.
- If the job is backward scheduled, the start date is estimated by the use of the fixed and variable lead-time elements. That estimated date then determines the revision and revision date.

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Note:

If the profile option WIP: Exclude Open ECOs is set to No, you can use released, scheduled, implemented, or open bill revisions. If the profile option WIP: See Engineering Items is set to No, You cannot select an engineering bill revision.

Technical Note

The default revision and revision date are not displayed. The actual revision and revision date that were used are displayed after the job has been defined.

Job Attachments

Attachments: you can attach any number of text or graphic attachments to a job by using the paper clip icon from the toolbar. They can be:

- Predefined documents
- Newly created attachments for one-time use
- Added during job definition or later if necessary

Note. Only Short Text data type and the Standard usage appear on reports.

Viewing Job Details

You can view material requirements and operations from the Discrete Jobs window as you define and update jobs. You do not need to navigate to the View Discrete Jobs window to view the details.

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View Component Requirement Details

View Component Requirement Details

When you click the **Components** button, the **Material Requirements** window is displayed with the component information.

Here you can view each component's **Main, Quantity, Supply, Comment, and ATP** information. For those components with **ATP** rules, you can perform an **ATP** check from this window.

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View Operation Details

View Operation Details

When you click the Operations button, the Operations window is displayed.

Here you can view each operation's Main, Quantities, Dates, and Description.

Also, from this window, you can display the resource requirements for a selected operation.

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View Resource Requirement Details

View Resource Requirement Details

While you are in the Operations window, you can display the resource requirements for a selected operation.

When you click the Resources button, the Resource Requirements window is displayed.

Here you can view the Main, Quantities, Scheduling, and Costing information for the selected operation.

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Review Question

Review Question

Which of the following are elements of a discrete job?

- a Routing revision
- b Completion subinventory
- c Bill revision
- d Job attachment
- e All of the above
- f None of the above

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Review Question

Review Question

Which of the following are elements of a discrete job?

- a Routing revision
- b Completion subinventory
- c Bill revision
- d Job attachment
- e All of the above**
- f None of the above

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Review Question

Review Question

On job #1, you have placed a Hold status, and you have canceled job #2. Against which jobs can you perform transactions?

- a Job #1 only
- b Job #2 only
- c Jobs #1 & #2
- d None of the above

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Review Question

Review Question

On job #1, you have placed a Hold status, and you have canceled job #2. Against which jobs can you perform transactions?

- a Job #1 only
- b Job #2 only
- c Jobs #1 & #2
- d None of the above**

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Review Question

Review Question

Using the Discrete Workstation window, you can obtain critical performance measurements along with component and resource requirements. However, you must return to the WIP menu to perform shop floor transactions.

- True
- False

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Review Question

Review Question

Using the Discrete Workstation window, you can obtain critical performance measurements along with component and resource requirements. However, you must return to the WIP menu to perform shop floor transactions.

- True
- **False**

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Demonstration

In Oracle Work in Process, we will demonstrate how to manually define a discrete job with an attachment.

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Practice



1. Why might you want to have different methods for defining discrete jobs?
2. What information about a job might you want to see once the job is defined?
3. What happens when you define a job using a bill that has no effective components?
4. Why is there no end quantity in the Discrete Jobs window?
5. Why would you want to define a job for a prior bill revision and revision date?
6. What happens when you use an alternate bill that has components assigned to operations that do not exist on the routing?
7. What are the main differences between the components on the bill and the material requirements for a specific job?
8. Why would you change the dates on a job?
9. Why would you decrease the job quantity?
10. What status might you use if your quality testing operation uncovered a significant processing error?
11. Would you ever add an operation to a routing? Why, or why not?

Practice Solution



1. Why might you want to have different methods for defining discrete jobs?
Business needs for job definition may vary. If you define relatively few jobs or do not use MRP, you probably want to use the Discrete Workbench window. If you use Oracle MRP, or another planning system, you probably want to use the Planner Workbench or the Import Jobs/Schedules window.
2. What information about a job might you want to see once the job is defined?
You probably want to see the start and end dates, the scheduled operations, the material requirements, and the resource requirements.
3. What happens when you define a job using a bill that has no effective components?
The job has no requirements.
4. Why is there no end quantity in the Discrete Jobs window?
The quantity field represents both the start and end quantity.
5. Why would you want to define a job for a prior bill revision and revision date?
You may want to manufacture an old model and therefore use a prior bill revision and revision date.
6. What happens when you use an alternate bill that has components assigned to operations that do not exist on the routing?
The components are assigned to the first operation on the routing by default.

7. What are the main differences between the components on the bill and the material requirements for a specific job?
 - Quantity
 - Consolidation for phantoms
 - WIP bill is a snapshot and does not change when the BOM bill is updated.
8. Why would you change the dates on a job?

You may need to reschedule the job so that it is completed earlier than previously planned.
9. Why would you decrease the job quantity?

Your customer might have called in to decrease the order quantity, and you do not want to stock any extra finished assemblies of the kind you are currently building.
10. What status might you use if your quality testing operation uncovered a significant processing error?

You can use the On Hold job status to prevent any further transactions against the job until the problem is fixed.
11. Would you ever add an operation to a routing? Why, or why not?

Yes, for example, if the need for rework arises.

Agenda

Agenda

- Lesson 1: Overview
- Lesson 2: Manually define discrete jobs
- **Lesson 3: Create operations, resource requirements, and material requirements**
- Lesson 4: Implement planned orders
- Lesson 5: Updating discrete jobs

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Overview

When you define a job, operations and resource requirements are created based on the assembly routing.

- **The routing you created in BOM is copied to become a work in process routing that can be modified without affecting the BOM routing.**
- **Dates and times for the operations, resource requirements, and material requirements needed to build the job can be scheduled using detailed scheduling.**

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Creating Operations

Creating Operations

Suppose that you define a discrete job called **Sentinel-F1** to build 100 Sentinel Financials. The following table shows the operations for the job.

Op Seq	Operation Description	Department
10	Assembly of standard chassis	FINASSY
20	Final assembly of standard models	FINASSY
30	Testing of standard models	TESTING
40	Packaging of product	PACKING

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Creating Resource Requirements

- Resources associated with the routing operations represent activities that should be performed at the operation.
- Resource requirements for the job are calculated upon job definition.

Note. You cannot create resource requirements without operations.

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Calculation Formulae

- **For Item-based resources: Resource requirements = Resource usage rate * job quantity**
- **For lot-based resources: Resource requirements = Resource usage rate * 1**

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Resource Requirements

Resource Requirements

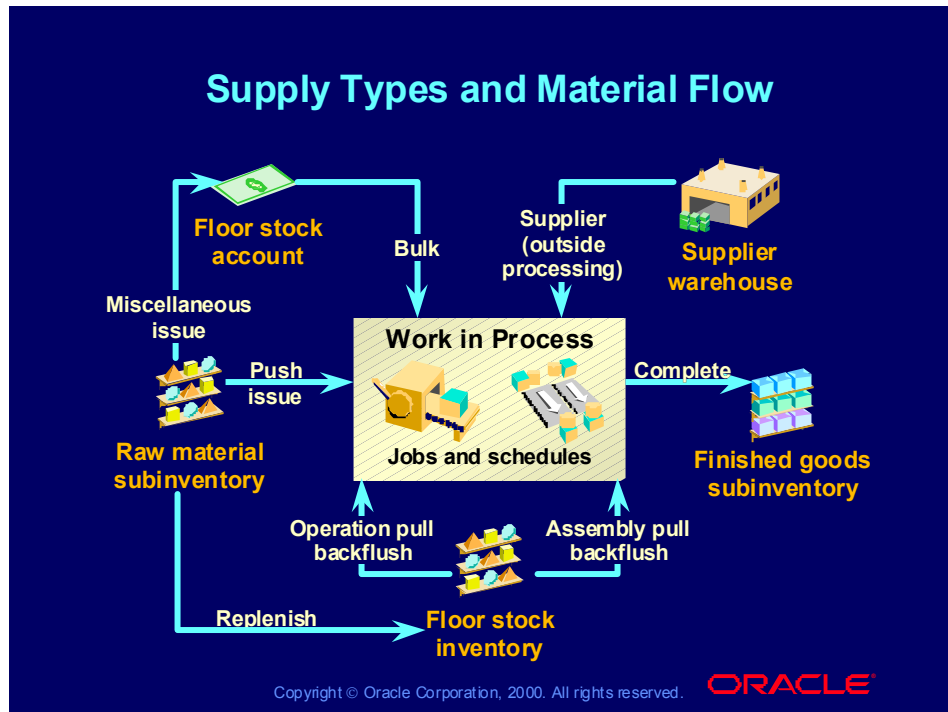
The following table shows the resource requirements for job Sentinel-F1 to build 100 Sentinel Financials.

Op Seq	Res Seq	Resource Code	Basis Type	Qty
10	10	Order	Lot	.3333
	20	StgChas	Item	.4
	30	FinAssy	Item	4
20	10	Queue	Item	11.1111
	20	Move	Item	11.1111
	30	Order	Lot	.666667
	40	FinAssy	Item	2.5
30	10	TestShort	Item	3.3333
40	10	Pack	Item	1

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Supply Types and Material Flow



Material Requirements Overview

When you define a job, Oracle Work in Process copies the assembly bill you created in BOM. It then creates material requirements for the copied bill of material components. You can use supply types to control how to supply your components for the material requirements on the job.

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WIP Supply Types

WIP Supply Types

Supply types are defined in the bill of material. If you change the supply type on your discrete job, you are overriding the supply types for all the components on that job.

Name	Description
Based on bill	Oracle Work in Process creates component requirements with supply types equal to those on the bill of material or those on the Item Master. Oracle Work in Process defaults this value when you define a job.
Assembly pull	Oracle Work in Process issues assembly pull components to a job when you complete assemblies into inventory.
Bulk	Oracle Work in Process does not automatically transact bulk components to the job.

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WIP Supply Types

WIP Supply Types

Name	Description
Operation pull	Oracle Work in Process issues operation pull components to a job when you complete the operation where the components are consumed.
Push	You issue push components to a job using the WIP Material Transaction window in advance of consumption.
Vendor	A vendor supplies components directly to Work in Process.

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Creating Material Requirements

- The single bill of material is exploded and becomes a work in process bill of material that you can modify.
- Subassemblies and components become material requirements.
- Phantom subassemblies are exploded and their components become material requirements.
- The material requirements are associated with an operation on the routing.

Note: You can create material requirements without routings. They are assigned to a default operation sequence of 1.

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Phantom Subassemblies

You can use BOM parameters to control the inheritance of a parent phantom's operation sequence and whether or not resources and overheads on phantom routings are recognized for costing and capacity planning purposes.

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Acceptable Combinations

Acceptable Combinations

BOM Parameters		
Use Phantom Routings	Inherit Phantom Operation Sequence	Comments
Yes	Yes	
Yes	No	Not allowed
No	No	
No	Yes	

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Example: Sentinel Financial Bill

Example: Sentinel Financial Bill

Op Seq	Dept	Component	Supply Type	Qty
20	FinAssy	Sentinel chassis—Standard	Phantom	1
		Monitor—15" Super VGA	Assembly pull	1
		Power cord	Assembly pull	1
		External 101-key keyboard	Assembly pull	1
		O/S documentation set	Push	1
		UNIX/Windows 1-user pack	Push	1
		Packing material	Assembly pull	1

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Material Requirements

Material Requirements

The phantom subassembly components became material requirements. Note that requirements for the power cords were consolidated.

Op Seq	Component	Supply Type	Qty
20	Sentinel Base Assembly	Operation pull	100
	PCMCIA modem/fax	Operation pull	100
	Motherboard	Operation pull	100
	Hard drive—340 MB	Operation pull	100
	3.5" disk drive	Operation pull	100
	5.25" disk drive	Operation pull	100
	Video card	Operation pull	100
	Keyboard mouse card	Operation pull	100
	SIMM—16 MB internal module	Operation pull	100
	Power cord	Assembly pull	200

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Technical Note

Some of the requirements listed in the table come from the phantom component on the bill. The standard screws and power cords are on the bill of material for both the phantom assembly and the parent assembly. Therefore Oracle Work in Process consolidates the requirements for these two components.

Material Requirements

Material Requirements

Note that the requirements for the standard screws were consolidated.

Op Seq	Component	Supply Type	Qty
20	Sound Board	Operation pull	100
	Sentinel cover assembly	Operation pull	100
	Standard screws	Operation pull	600
	Sentinel documentation	Operation pull	100
	Monitor—15" Super VGA	Assembly pull	100
	Packing material	Assembly pull	100
	External 101-key keyboard	Assembly pull	100
	O/S documentation set	Push	100
	UNIX/Windows 1-user pack	Push	100
	Motherboard—486DX2 w/PCI	Operation pull	100

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Technical Note

Some of the requirements listed in the table come from the phantom component on the bill. The standard screws and power cords are on the bill of material for both the phantom assembly and the parent assembly. Therefore Oracle Work in Process consolidates the requirements for these two components.

Review Question

Review Question

Once you have created the job with a work in process routing, you cannot modify it.

- True
- False

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Review Question

Review Question

Once you have created the job with a work in process routing, you cannot modify it.

- True
- **False**

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Review Question

Review Question

With or without operations, you can create resource requirements.

- True
- False

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Review Question

Review Question

With or without operations, you can create resource requirements.

- True
- **False**

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Demonstration

In Oracle Work in Process, we will demonstrate how to:

- Create operations
- Resource and material requirements

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Practice



You work for a computer company. A rush order has come in for 100 Envoy Upgrade Packs in the Seattle organization after the planning process has completed. Your manager wants you to create a discrete job manually for this order and then release your job.

1. Define an unreleased discrete job using a unique alphanumeric job name.
2. Add an attachment to an operation on the job.
3. Release your job.

Practice Solution

Practice Solution

The screenshot shows the Oracle Discrete Jobs (M1) window. The job details are as follows:

Job	15768	Type	Standard
Assembly	AS18947		
Class	Discrete	UOM	
Status	Unreleased	<input type="checkbox"/> Firm	<input type="checkbox"/>

Quantities

Start	225
MRP Net	225

Dates

Start	26-APR-2000 14:33:00
Completion	01-MAY-2000 00:00:00

Navigation tabs: Bill, Routing, Job History, Schedule Group, Project, Scheduling, More

Reference:

Alternate:

Revision: A Revision Date: 27-APR-2000 00:00:00

Supply Type: Based on Bill

Buttons: Sales Orders, Operations, Components

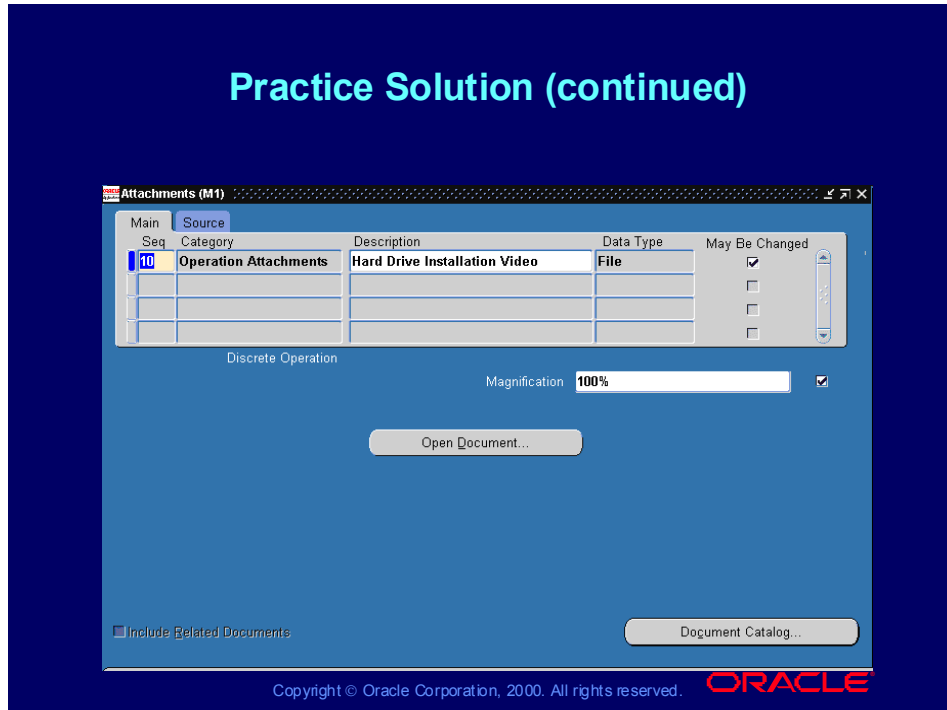
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(N) WIP > Discrete > Discrete Jobs

(Help) Oracle Manufacturing Applications > Oracle Work in Process > Discrete Manufacturing > Creating Discrete Jobs > Defining Discrete Jobs Manually

1. Navigate to the Discrete Jobs window.
2. Enter a job name.
3. Select the Job Type of Standard.
4. Select an accounting class, or use the default if found.
5. Select the job status.
6. Specify the start quantity, the MRP net quantity, and the start date.
7. Save your work.

Practice Solution (continued)



Practice Solution (continued)

Practice Solution (continued)

The screenshot shows the Oracle Discrete Jobs (M1) window. The job details are as follows:

Job	15768	Type	Standard
Assembly	AS18947		
Class	Discrete	UOM	
Status	Released	<input type="checkbox"/> Firm	

Quantities

Start	225
MRP Net	225

Dates

Start	26-APR-2000 14:33:00
Completion	01-MAY-2000 00:00:00

Navigation tabs: Bill, Routing, Job History, Schedule Group, Project, Scheduling, More

Reference:

Alternate:

Revision: A Revision Date: 27-APR-2000 00:00:00

Supply Type: Based on Bill

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(N) WIP > Discrete > Discrete Jobs

(Help) Oracle Manufacturing Applications > Oracle Work in Process > Discrete Manufacturing > Creating Discrete Jobs > Defining Discrete Jobs Manually

Releasing the Job:

- 1 Navigate to the Discrete Jobs window.
- 2 Change the job status to Released.
- 3 Save your work.
- 4 Validate the status of your job.

WIP Build Sequencing

- You can identify the ordering or sequencing of production to the shop floor using WIP Build Sequencing. You can:
 - Group and prioritize your jobs
 - Group jobs to minimize setup cost
 - Maintain a schedule group, a build sequence, and a line identifier on each job header
 - View current jobs by schedule group, build sequence, and line
 - Release jobs by schedule group, build sequence, and line

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In some industries, such as automotive, most assemble to order items are sequenced for shipment to the supplier's trading partner directly from work in process.

Using WIP Build Sequencing, you can identify the ordering or sequencing of production to the shop floor. This is necessary to minimize production setups and changeovers. You can also use schedule group and build sequence as a tool to prioritize your work orders.

Agenda

Agenda

- Lesson 1: Overview
- Lesson 2: Manually define discrete jobs
- Lesson 3: Create operations, resource requirements, and material requirements
- **Lesson 4: Implement planned orders**
- Lesson 5: Updating discrete jobs

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Implementing Planned Orders

Implementing Planned Orders

- You can automatically implement your planned orders from Oracle Master Production Scheduling/MRP, or if you have the Advanced Planning & Scheduling (APS) suite, as discrete jobs.
- The job name, accounting class, and lot number are defaulted from the Oracle WIP parameters.
- Before implementing the job, you can modify the due date, status, and quantity.
- You can load the jobs as Unreleased, Released, or On Hold.
- You can import and implement planned orders from other systems.

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Note:

The job name is defaulted from the database sequence and prefix in the personal Profile Options, if present.

The job status defaults to Unreleased.

Planned orders for phantoms are not automatically displayed unless you specifically request that they are by using a WIP supply status of Phantom when querying the data.

You can use production kanban cards to initiate discrete jobs. You complete production against a kanban card and forward the material to the next production line.

You can use intra-org kanban cards to initiate move orders to transfer material from a central stocking location to a production stocking location.

Discrete jobs can be created during the autocreate final assembly function. This action automatically links the sales order for the configured item to the discrete work order.

Planned Orders

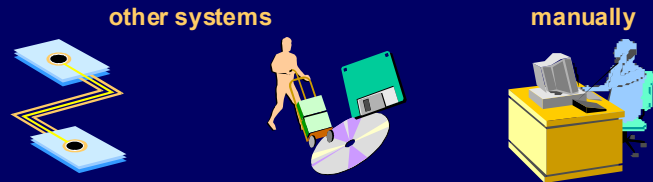
- The job name is defaulted from the database sequence and prefix in the personal Profile Options, if present.
- The job status defaults to Unreleased.
- Planned orders for phantoms are not automatically displayed unless you specifically request that they are by using a WIP supply status of Phantom when querying the data.

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Import Jobs and Schedules

Import Jobs and Schedules



You can import and implement planned orders from other systems.

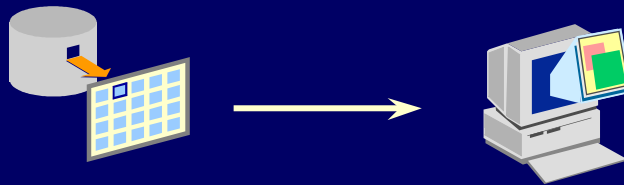
If your plant directly feeds your customer's plant, you can get your customer's demands using the Open Job and Schedule Interface rather than wait for the next planning run. You can implement these demands using an Import Jobs and Schedules request for a WIP Mass Load.

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Pending Jobs and Schedules

Pending Jobs and Schedules



- You can view, update, delete, or resubmit job records that have failed and remain in the Open Job and Schedule Interface table.
- You can use the Discrete Mass Interface Status Load report to view the jobs that were loaded from the interface table.

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Review Question

Review Question

Which of the statuses can be set when implementing planned orders?

- a Unreleased
- b Released
- c Complete
- d Complete - No Charges
- e On Hold
- f Canceled
- g Closed

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Review Question

Review Question

Which of the statuses can be set when implementing planned orders?

- a Unreleased
- b Released
- c Complete
- d Complete - No Charges
- e On Hold
- f Canceled
- g Closed

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Agenda

Agenda

- Lesson 1: Overview
- Lesson 2: Manually define discrete jobs
- Lesson 3: Create operations, resource requirements, and material requirements
- Lesson 4: Implement planned orders
- **Lesson 5: Updating discrete jobs**

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Update Discrete Job Data

In your discrete job, you can update :

- Header information, based on the job status
- Routing information
- Bill information
- Sales order information
- Job operations
- Job requirements

Note: If the profile option WIP:Job Name Updatable is set to No, you cannot update the name of the existing job.

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Updating Discrete Job Information

Updating Discrete Job Information

Discrete Jobs Window				
Field \ Status	Unreleased	Released	On Hold	Complete
Job	✓	✓	✓	✓
Type				
Assembly				
Class	✓			
UOM				
Status	✓	✓	✓	✓
Firm	✓	✓	✓	✓
Start Quantity	✓	✓	✓	✓
MRP Net Quantity	✓	✓	✓	✓
Start Date/Time	✓	✓	✓	✓
Completion Date/Time	✓	✓	✓	✓

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(Help) Oracle Manufacturing Applications > Oracle Work in Process > Discrete Manufacturing > Changing Discrete Jobs

Updating Discrete Job Information

Updating Discrete Job Information

Discrete Jobs Window				
More Tab				
Field \ Status	Unreleased	Released	On Hold	Complete
Demand class	✓	✓	✓	✓
Kanban reference	✓	✓	✓	✓
Lot number	✓	✓	✓	✓
Description	✓	✓	✓	✓
Over tolerance type	✓	✓	✓	✓
Over tolerance value	✓	✓	✓	✓

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Updating Discrete Job Information

Updating Discrete Job Information

Discrete Jobs Window				
Routing Tab				
Status	Unreleased	Released	On Hold	Complete
Field				
Reference (for nonstandard jobs)				
Alternate	✓			
Revision	✓			
Revision Date/Time	✓			
Completion Sub	✓	✓	✓	✓
Completion Locator	✓	✓	✓	✓

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Updating Discrete Job Information

Updating Discrete Job Information

Discrete Jobs Window				
Bill Tab				
Field \ Status	Unreleased	Released	On Hold	Complete
Reference				
Alternate	✓			
Revision	✓			
Revision Date/Time	✓			
Supply Type				

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Updating Discrete Job Information

Updating Discrete Job Information

Discrete Jobs Window				
Sales Order Window				
Field \ Status	Unreleased	Released	On Hold	Complete
Order number				
Line				
Ordered item				
Quantity	✓	✓	✓	

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Updating Discrete Job Operations

Updating Discrete Job Operations

Discrete Job Operations			
Job Status	Add	Update	Delete
Unreleased	✓	✓	✓
Released	✓	✓	✓
On Hold	✓	✓	✓
Complete	✓	✓	✓

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(Help) Oracle Manufacturing Applications > Oracle Work in Process > Discrete Manufacturing > Overview of Changing Discrete Jobs > (H) Adding and Updating Operations

(Help) Oracle Manufacturing Applications > Oracle Work in Process > Discrete Manufacturing > Overview of Changing Discrete Jobs > (H) Deleting Operations

Rules for Deleting Operations

You can delete an operation from a discrete job if:

- **There are no assemblies at the operation.**
- **No assemblies have been completed at the operation.**
- **There are no pending transactions in the open move interface table.**
- **No resources at the operation have been charged.**
- **There are no pending transactions in the open resource interface table.**

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Addition and Deletion Considerations

Addition and Deletion Considerations

- If you delete an operation, Oracle Work in Process reassigns its material requirements to the first operation in the routing, or to operation sequence 1 if there are no operations in the routing.
- If you add or delete an operation for a job, you may want to reschedule the job to correctly reflect the schedule dates of the job.

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Example

If you have a bottleneck operation and you want to use a different operation, you could remove the old operation and add the new one in the old operation sequence.

Updating Discrete Job Resources

Updating Discrete Job Resources

Discrete Job Resources			
Job Status	Add	Update	Delete
Unreleased	✓	✓	✓
Released	✓	✓	✓
On Hold	✓	✓	✓
Complete	✓	✓	✓

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(Help) Oracle Manufacturing Applications > Oracle Work in Process > Discrete Manufacturing > Overview of Changing Discrete Jobs > (H) Adding and Updating Resource Requirements

(Help) Oracle Manufacturing Applications > Oracle Work in Process > Discrete Manufacturing > Overview of Changing Discrete Jobs > (H) Deleting Resource Requirements

Rules for Deleting Resources

You can delete a resource requirement from a discrete job if:

- **That resource has not been charged to the operation.**
- **There are no pending transactions in the open resource interface table.**

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Updating Discrete Job Requirements

Discrete Job Requirements			
Job Status	Add	Update	Delete
Unreleased	✓	✓	✓
Released	✓	✓	Only if requirements have not been issued
On Hold	✓	✓	Only if requirements have not been issued
Complete	✓	✓	Only if requirements have not been issued

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(Help) Oracle Manufacturing Applications > Oracle Work in Process > Discrete Manufacturing > Overview of Changing Discrete Jobs > (H) Adding and Updating Material Requirements

(Help) Oracle Manufacturing Applications > Oracle Work in Process > Discrete Manufacturing > Overview of Changing Discrete Jobs > (H) Deleting Material Requirements

Example

If you have an engineering change on a released job for the Desktop Sentinel that requires a component to be substituted, you could add the new component and update the old one.

Discrete Workstation

You can graphically view and perform manufacturing activities on the shop floor. This workstation enables you to quickly and easily obtain information critical to supporting business decisions and controlling daily shop floor activities.

Production operators can:

- **Quickly and easily obtain component and resource requirements, as well as performance measurements.**
- **Perform shop floor transactions without returning to the WIP menu.**

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(N) WIP > Discrete > Discrete Workstation

(Help) Oracle Manufacturing Applications > Oracle Work in Process > Discrete Manufacturing > Discrete Workstation

Review Question

Review Question

At what job status(es) can you change the unit of measure?

- a Unreleased
- b Released
- c On Hold
- d Complete
- e None of the above

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Review Question

Review Question

At what job status(es) can you change the unit of measure?

- a Unreleased
- b Released
- c On Hold
- d Complete
- e None of the above**

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Agenda

Agenda

- **Lesson 6: Simulate and save a discrete job**
- Lesson 7: Using nonstandard discrete jobs
- Lesson 8: Summary

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Simulating and Saving a Discrete Job

Simulating and Saving a Discrete Job

You can simulate a standard job to determine what materials, operations, and operation resources are required to support that job.

You can do the following:

- **Vary the quantity and the start and completion dates to determine scheduling and requirement constraints.**
- **View both on-hand and ATP quantities for the simulated component requirements.**
- **Vary the bills of material and the routings and their associated revisions and revision dates.**

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(N) WIP > Discrete > Simulate Discrete Jobs

(Help) Oracle Manufacturing Applications > Oracle Work in Process >

Discrete Manufacturing > Simulating and Saving Simulated Discrete Jobs

Simulating a Discrete Job

- **Simulate only standard discrete jobs. Routings are not required.**
- **With the WIP: See Engineering Items profile option set to Yes, simulate jobs for engineering items.**
- **Convert your simulated job into an actual job and then save it.**
- **Create the discrete job from the Simulate Discrete Jobs window without having to redefine the job in the Discrete Jobs window.**

Note: You cannot select an assembly that has a flow related primary routing.

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Review Question

Review Question

Can you ever use your simulated job as a real job?

- Yes
- No

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Review Question

Review Question

Can you ever use your simulated job as a real job?

- Yes
- No

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Demonstration

In Oracle Work in Process, we will demonstrate how to:

- Define a simulated job
- Compare it to a real job

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Agenda

Agenda

- Lesson 6: Simulate and save a discrete job
- **Lesson 7: Using nonstandard discrete jobs**
- Lesson 8: Summary

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Using Nonstandard Discrete Jobs

There are many options available when you create a nonstandard job. The included options pertain to:

- The bill of material and routing
- The assembly item to be worked on and its quantity
- Any accounting class requirements
- The closing of the job

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Nonstandard Discrete Job Functions

- You can control materials and resources for nonstandard projects.
- You can track costs for various activities.
- You can report on all aspects of your production.

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More Nonstandard Job Functions

- You can manage the following activities:
 - Rework
 - Upgrades
 - Field service repair and maintenance
 - Disassemblies
 - Engineering prototypes and other miscellaneous activities

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Nonstandard Versus Standard Discrete Jobs

Nonstandard Versus Standard Discrete Jobs

Field	Standard Discrete Job	Nonstandard Discrete Job
Job	Required	Required
Type	Required	Required
Assembly	Required	Optional. Enter if you want to perform move and completion transactions.
Class	Required	Required
Status	Required	Required
Firm	Required. Defaults to Checked if item is MPS planned. Otherwise, defaults to Unchecked.	You cannot enter a value in this field. Defaults to Unchecked.

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Nonstandard Versus Standard Discrete Jobs

Nonstandard Versus Standard Discrete Jobs

Field	Standard Discrete Job	Nonstandard Discrete Job
Quantity	Required	Required. You can enter 0. Enter a positive number if you want to perform move and/or completion
MRP Net Qty	Required. Defaults from Quantity.	Required. Defaults from Quantity. If you do not enter an assembly, you cannot enter a value in this field.
Start Date	Required. You can enter a start date and a completion date.	Required. You can enter a start date and a completion date.

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Nonstandard Versus Standard Discrete Jobs

Nonstandard Versus Standard Discrete Jobs

Field	Standard Discrete Job	Nonstandard Discrete Job
Completion Date	Required. You can enter a start date and a completion date.	Required. You can enter a start date and a completion date.
Lot Number	Optional	Optional
Routing Reference	You cannot enter a value in this field.	Optional. Enter a value if you want to perform job scheduling based on a routing.
Alternate Routing	Optional	Optional

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Nonstandard Versus Standard Discrete Jobs

Nonstandard Versus Standard Discrete Jobs

Field	Standard Discrete Job	Nonstandard Discrete Job
Revision	Optional	Optional. You must enter a value in this field if you have a routing for the assembly.
Revision Date	Optional	Optional. You must enter a value in this field if you have a routing for the assembly.
Completion Subinventory	Optional	Optional
Completion Location	Optional	Optional

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Nonstandard Versus Standard Discrete Jobs

Nonstandard Versus Standard Discrete Jobs

Field	Standard Discrete Job	Nonstandard Discrete Job
Bill Reference	You cannot enter a value in this field.	Optional. Enter a value if you want to automatically create material requirements based on a bill of material.
Alternate Bill	Optional	Optional
Revision	Optional	Optional. You must enter a value in this field if you have a bill for the assembly.
Revision Date	Optional	Optional. You must enter a value in this field if you have a bill for the assembly.
Supply Type	Required. Defaults to Based on bill.	Required. Defaults to Based on bill.

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Major Features of Nonstandard Jobs

Major Features of Nonstandard Jobs

Using the following features of nonstandard jobs, you have the flexibility to meet all your nonstandard business needs:

- **Bill and routing reference options**
- **Assembly options**
- **Quantity options**
- Bill of materials looping
- Expense type costing
- Job costing options
- WIP accounting class options
- Closing nonstandard jobs options

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Bill and Routing Reference Options

- **Optionally, you can assign a predefined bill of material to a nonstandard job.**
- **You can use any bill or routing, including one that does not match the assembly for the job. For example, you could define a standard upgrade bill and use it to upgrade several different assemblies with the same upgrade material requirements.**
- **You can decide not to assign a bill or routing. For example, if you use a nonstandard job for maintenance of your machines, you do not need to specify a bill or routing.**

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Assembly Options

- **Optionally, you can specify an assembly on a nonstandard job. For example, you should identify the assembly being reworked on a rework order.**
- **If you are using a nonstandard job to perform maintenance on a machine, you would not need to identify an assembly on the job.**

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Quantity Options

- **Optionally, you can include a job quantity on a nonstandard job.**
- **You can define a job quantity only if you have defined an assembly for the nonstandard job. For example, if you define a job to perform an upgrade, you would identify the assembly and specify the number of assemblies you want to upgrade.**
- **The assembly and job quantity let you perform shop floor transactions.**

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Major Features of Nonstandard Jobs

Major Features of Nonstandard Jobs

The following features of nonstandard jobs give you the flexibility to meet all your nonstandard business needs:

- Bill and routing reference options
- Assembly options
- Quantity options
- **Bill of material looping**
- **Expense type costing**
- Job costing options
- WIP accounting class options
- Closing nonstandard jobs options

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Bill of Material Looping

- You can add the assembly you are building as a material requirement on the job's bill of material.
- If you are performing rework or upgrade activities, you can specify the assembly that you are working on and then add the same assembly to the job as a requirement to indicate that you are receiving the assembly out of inventory. In other words, you can issue the broken or outdated assembly to the job and eventually complete the fixed or upgraded assembly back into inventory.

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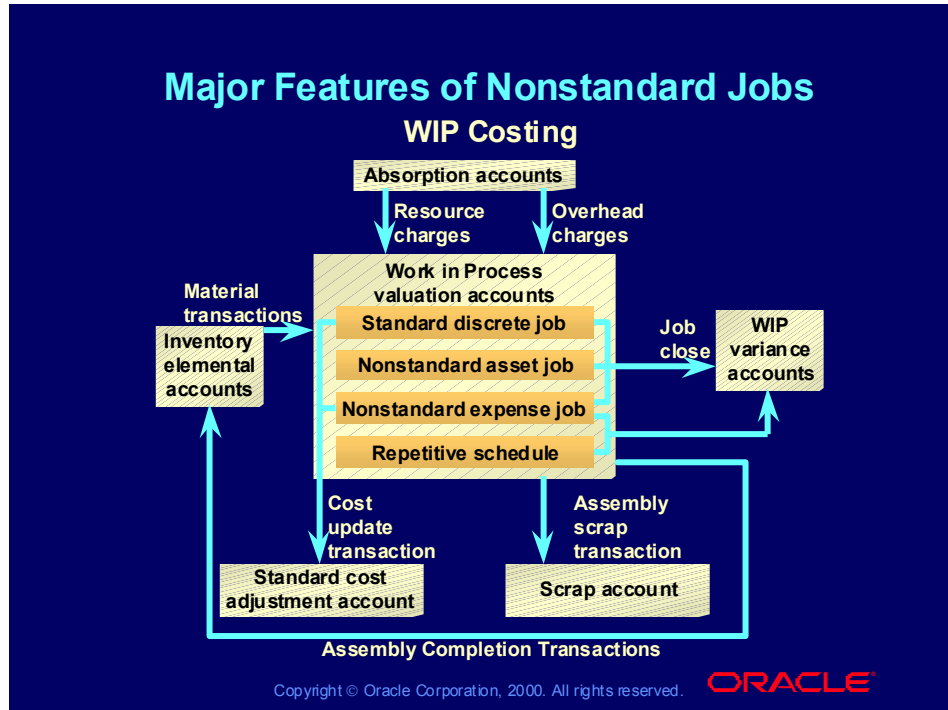
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Expense Type Costing

- You can use expense costing to periodically write your nonstandard production costs to expense accounts.
- If you want to capture the cost of regular maintenance activity, you can define a nonstandard job with an expense accounting class.

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Major Features of Nonstandard Jobs



Major Features of Nonstandard Jobs

Major Features of Nonstandard Jobs

The following features of nonstandard jobs give you the flexibility to meet all your nonstandard business needs:

- Bill and routing reference options
- Assembly options
- Quantity options
- Bill of materials looping
- Expense type costing
- Job costing options
- **WIP accounting class options**
- Closing nonstandard jobs options

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WIP Accounting Class Options

- **When you create your discrete job, you can define the WIP accounting class as an asset or as an expense to the job. This class is then costed on a job basis.**
- **Nonstandard expense jobs are period costed and therefore not revalued by cost updates.**
- **You can charge standard average costs for material, resources, overheads, and outside processing.**
- **Nonstandard jobs do not earn material overhead on completion because you probably have already earned the overhead during the original build.**

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Major Features of Nonstandard Jobs

Major Features of Nonstandard Jobs

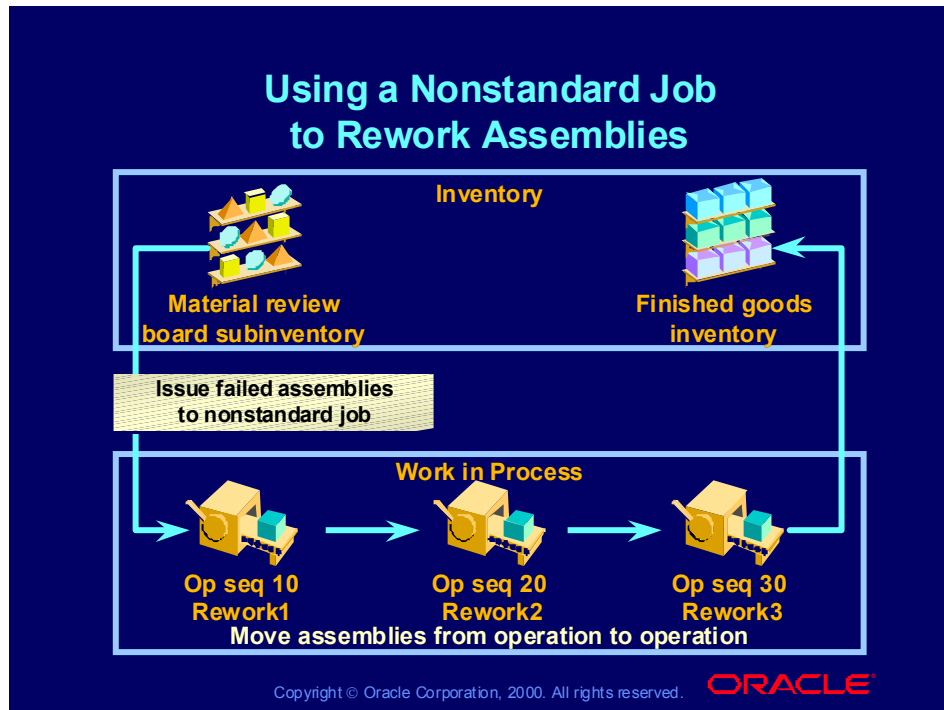
The following features of nonstandard jobs give you the flexibility to meet all your nonstandard business needs:

- Bill and routing reference options
- Assembly options
- Quantity options
- Bill of materials looping
- Expense type costing
- Job costing options
- WIP accounting class options
- **Closing nonstandard jobs options**

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Using a Nonstandard Job to Rework Assemblies



(Help) Oracle Manufacturing Applications > Oracle Work in Process > Nonstandard Discrete Jobs > Business Scenarios > Rework Assemblies

Reworking Rejected Assemblies

- You can rework rejected assemblies currently in an MRB subinventory using a nonstandard job.
- You can complete rejected assemblies from the current job to an MRB subinventory.
- Optionally you can store the assemblies in that subinventory until you are ready to rework them.
- You can define a nonstandard job for the number of assemblies to be reworked.
- You can select an asset type nonstandard accounting class because the job is building up assets.
- You can enter the quantity that the planning process should expect as supply in the MRP Net Quantity field.
- You can manually create rework operations using the Operations window, or you can use a predefined rework routing.
- You can set the MRP net quantity to the quantity of assemblies that you expect to recover.
- You can manually create the only component requirement (the assembly to rework) at one of the rework operations using the Material Requirements window.

- You can enter Push in the Supply Type field, because it is likely that the assemblies will be pushed to the rework operation.
- You can specify the supply subinventory as the MRB subinventory.
- You should clear the MRP Net field to avoid creating demand for the rejected assemblies, because the supply for that assembly is provided by the nonnettable MRB subinventory.
- You can issue the assemblies to the nonstandard job using the WIP Material Transactions window.
- You can use the Move Transactions window to move the assemblies from operation to operation and to charge rework resource and overhead costs.
- You can complete the reworked assemblies into a nettable subinventory using the WIP Completion Transactions window.
- **Reviewing Cost Information**
- The ending balance of the job should be the resource and overhead charges.
- The material charges for the assemblies net to zero because the only material on the job was the assemblies that were issued to and completed from the job.
- **Benefits**
- You can group rejected assemblies on a single rework nonstandard job to gain efficiency
- With a nonstandard job, you can identify the exact rework costs.
- The MRP net quantity informs planning of anticipated supply.
- Nonnettable subinventories and MRP net quantities allow component supply and component demand to balance.

Closing Nonstandard Jobs Options

- You can manually close nonstandard jobs whenever you choose. The job status is set to Closed.
- Jobs with asset type class are costed in the same way as standard jobs, and all variances are computed at job close.
- For jobs with expense type class, an accounting close is performed on a periodic basis during period close. Variances from all open periods are computed.

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Review Question

Review Question

You can assign a predefined bill for your nonstandard job.

- True
- False

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Review Question

Review Question

You can assign a predefined bill for your nonstandard job.

- True
- False

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Review Question

Review Question

You can never add the assembly you are building as a material requirement on the job's bill of material.

- True
- False

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Review Question

Review Question

You can never add the assembly you are building as a material requirement on the job's bill of material.

- True
- **False**

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Review Question

Review Question

For a nonstandard discrete job, which field(s) must be entered in order to automatically create material requirements for the job based on a bill of material?

- a Bill Reference**
- b Alternate Bill**
- c Revision**
- d Revision Date**
- e None of the above**
- f All of the above**

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Review Question

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For a nonstandard discrete job, which field(s) must be entered in order to automatically create material requirements for the job based on a bill of material?

- a Bill Reference**
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- e None of the above
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Review Question

Review Question

On your nonstandard job, can you enter an MRP Net Quantity if you do not reference an assembly?

- a Yes**
- b No**

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Review Question

Review Question

On your nonstandard job, can you enter an MRP Net Quantity if you do not reference an assembly?

a Yes

b No

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Review Question

Review Question

True or False

You can use the same windows to manage both standard and nonstandard discrete jobs.

- True
- False

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Review Question

Review Question

True or False

You can use the same windows to manage both standard and nonstandard discrete jobs.

- True
- False

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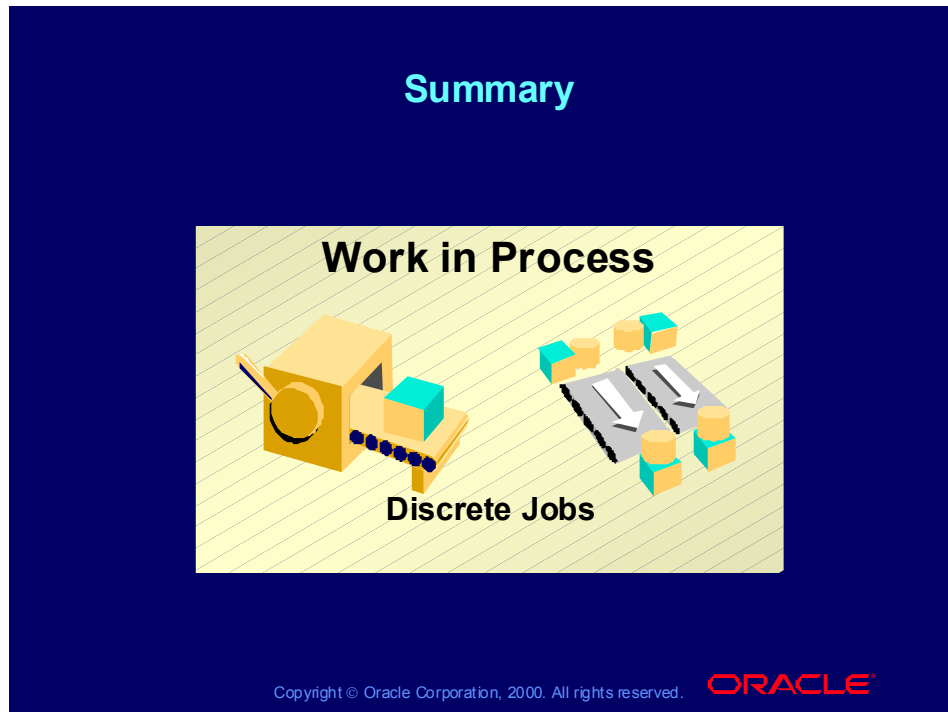
Agenda

Agenda

- Lesson 6: Simulate and save a discrete job
- Lesson 7: Using nonstandard discrete jobs
- **Lesson 8: Summary**

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Summary



Summary

Summary

You must always specify six elements when defining a discrete job:

- **Job name**
- **Assembly**
- **Quantity**
- **Start or completion date**
- **Accounting class**
- **Job status**

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Summary

You can define a job in many ways:

- **You can manually define a job using the Discrete Job window.**
- **You can implement planned orders from Oracle Planning.**
- **You can import planned orders from other systems using the Open Job/Schedule interface.**
- **Production kanban cards can be replenished from a WIP job. A flow schedule, and a discrete job or repetitive schedule is automatically created.**

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Summary

Summary

- With an intra-org kanban, items can be replenished from a subinventory; a replenishment move order is created and is automatically approved.
- During the WIP autocreate function of an Assemble-to-Order configuration, a discrete job is automatically created and linked to the sales order.
- When you define a job, Oracle Work in Process creates requirements and operations that you can later update as necessary.
- You can update the header information of a job based on the status of the job.

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Summary

- You can add, delete, or update job operations, resource requirements, and material requirements.
- Nonstandard discrete jobs are very similar to standard discrete jobs and they are even more flexible.
- You can use nonstandard discrete jobs to manage rework, upgrades, and maintenance activities.
- You can use the same windows to manage both standard discrete jobs and nonstandard discrete jobs.

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