

# Create and Update Repetitive Schedules

## Student Guide

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**Author Bill Figini**

#### **Technical Contributors and Reviewers**

Pam Freeman

Barry Kuhl

Michael Unterkofler

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## Preface

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### Profile

#### Before You Begin This Course

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

- Thorough knowledge of *production activities associated with a repetitive scheduled manufacturing environment*.

#### Prerequisites

- *Oracle Inventory*
- *Oracle Bills of Material and Oracle Engineering*
- *Oracle Planning*

#### How This Course Is Organized

*Create and Update Repetitive Schedules* 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>&lt;insert&gt;</i>	<i>Axxxxxx</i>
<i>&lt;insert&gt;</i>	<i>Axxxxxx</i>
<i>&lt;insert&gt;</i>	<i>Axxxxxx</i>
<i>&lt;insert&gt;</i>	<i>Axxxxxx</i>

### 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 <b><i>algorithm</i></b> 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 <code>LAST_NAME</code> 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.

## **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.

# **Create and Update Repetitive Schedules**

## **Chapter 1**

### **Oracle Work in Process Release 11i**

#### **Create and Update Repetitive Schedules**

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### Objectives

**After completing this lesson, you should be able to do the following:**

- **Implement suggested repetitive schedules from Oracle Planning**
- **Import planned repetitive schedules from other systems**
- **Manually define repetitive schedules using the Define Repetitive Schedules window**
- **Explain how requirements and operations are created for a repetitive schedule**

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### Objectives (continued)

- **Update repetitive schedule header information with dates, quantities, and status**
- **Update the operations and material requirements of a repetitive schedule**
- **Define the use of kanban replenishment with repetitive schedules**

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# Agenda

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## Agenda

- **Lesson 1: Overview**
- **Lesson 2: Defining repetitive schedules**
- **Lesson 3: Creating operations and resource requirements**
- **Lesson 4: Creating material requirements**
- **Lesson 5: Updating repetitive schedules**
- **Lesson 6: Summary**

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## Lesson 1: Overview

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### Lesson 1: Overview

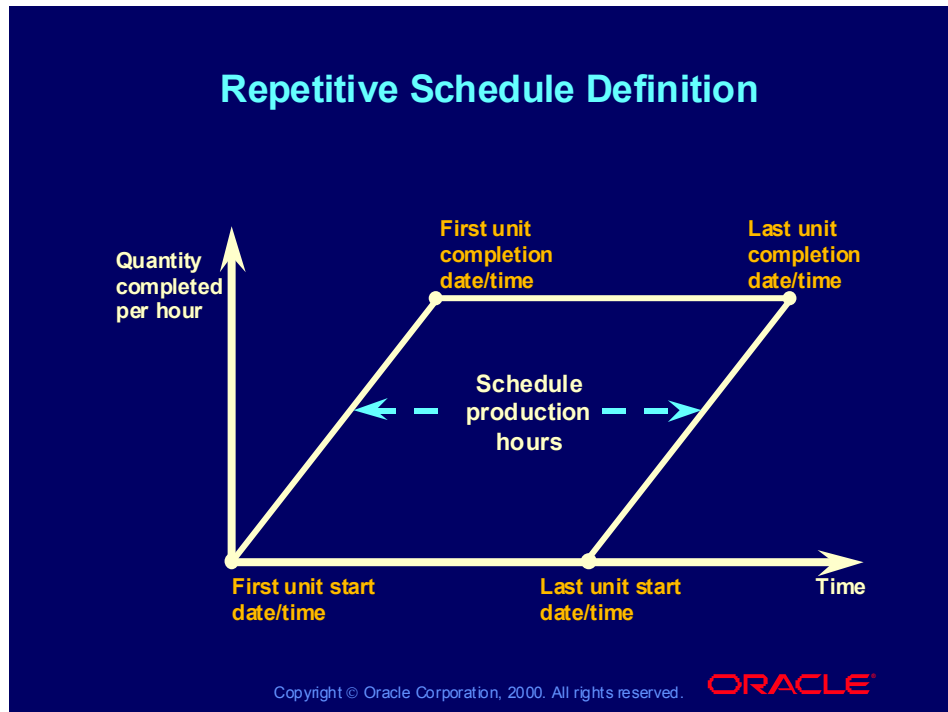
- **Lesson 1: Overview**
- Lesson 2: Defining repetitive schedules
- Lesson 3: Creating operations and resource requirements
- Lesson 4: Creating material requirements
- Lesson 5: Updating repetitive schedules
- Lesson 6: Summary

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## Repetitive Schedule Definition

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### Definition

A repetitive schedule builds an assembly on a production line at a specific daily rate for a specific number of processing days.

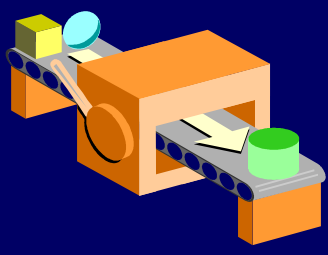
**Note:** For a more complete description of repetitive line scheduling, refer to Online Help.

(Help) Oracle Manufacturing Applications > Oracle Work in Process > Repetitive Manufacturing > Creating Repetitive Schedules > Defining Repetitive Schedules Manually > Related Topics > (H) Repetitive Line Scheduling (Oracle Work in Process)

## Implementing a Repetitive Schedule

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### Implementing a Repetitive Schedule



- From Oracle Planning
- From other systems
- Manually

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### From Oracle Planning

You can automatically implement your suggested schedules from Oracle Planning with a status of Pending–Mass Loaded. If another schedule already meets this demand, you can cancel the pending schedule, otherwise you can release it. You can also adjust existing schedules according to suggestions.

**Note:** Oracle Planning does not take existing schedules into account when performing its planning function.

### From Other Systems

You can import and implement planned schedules from other systems as pending schedules in Oracle Work in Process. You can load the Open Job and Schedule Interface table from any system. After loading the demands in the interface, you can import them as pending schedules.

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

Reports and Processes > Report Processes > Import Jobs and Schedules

**Note:** Refer to the Open Job and Schedule interface in the Online Help.

You can use the Repetitive Mass Interface Status Load report to review the schedules that were loaded from the interface table.

## Viewing Pending Schedules

---

### Viewing Pending Schedules

You can use the Pending Jobs and Schedules window to view, update, delete, or resubmit schedule records that have failed validation and remain in the Open Job and Schedule Interface table. You can also view the error messages associated with failed schedule records.



(N) WIP > Repetitive > Pending Jobs and Schedules

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### Pending Jobs and Schedules

(Help) Oracle Manufacturing Applications > Oracle Work in Process >  
Tools Menu (H) Processing Pending Jobs and Schedules

## Review Question

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### Review Question

**Repetitive schedules can come from:**

- **Oracle Purchasing**
- **Oracle Planning**
- **Oracle Inventory**
- **Other systems**
- **Oracle Workflow**

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## Answer to Review Question

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### Answer to Review Question

**Repetitive schedules can come from:**

- Oracle Purchasing
- **Oracle Planning**
- Oracle Inventory
- **Other systems**
- Oracle Workflow

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## Lesson 2: Defining Repetitive Schedules

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### Lesson 2: Defining Repetitive Schedules

- Lesson 1: Overview
- **Lesson 2: Defining repetitive schedules**
- Lesson 3: Creating operations and resource requirements
- Lesson 4: Creating material requirements
- Lesson 5: Updating repetitive schedules
- Lesson 6: Summary

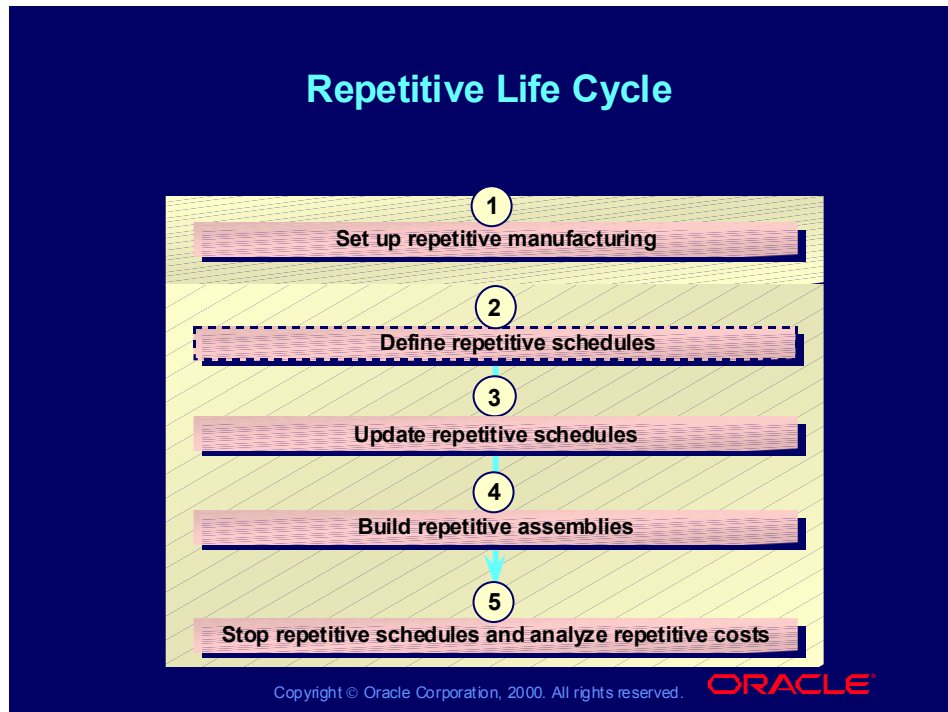
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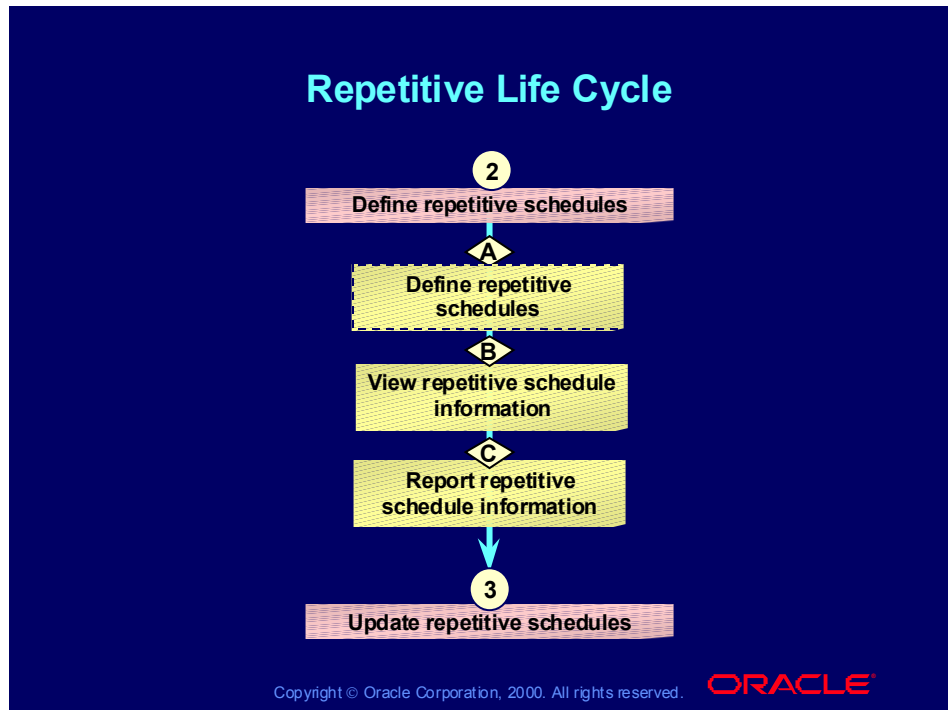
# Repetitive Life Cycle

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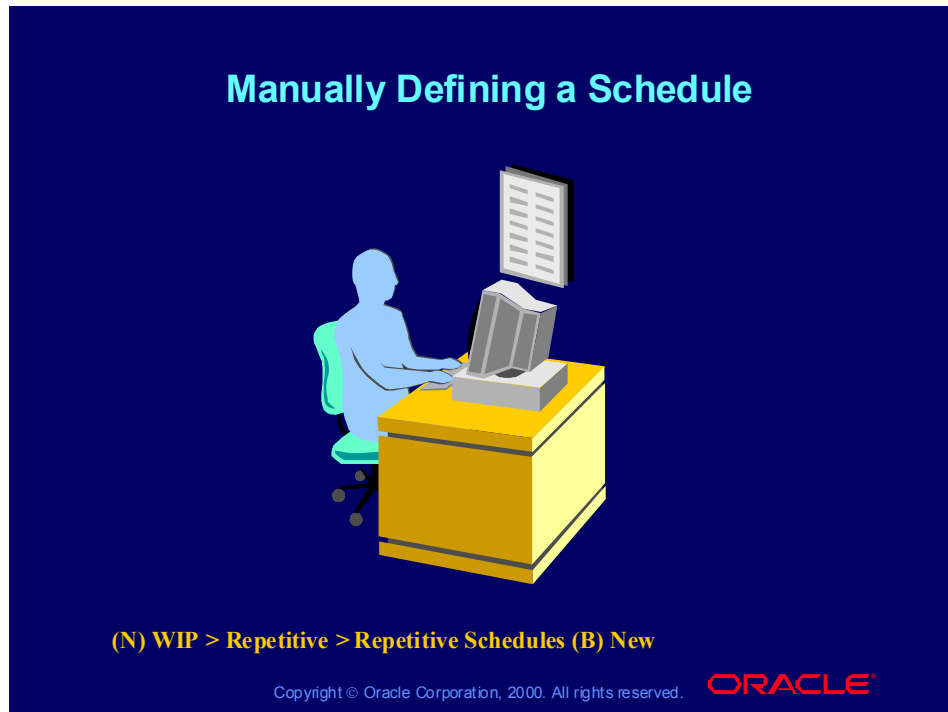
## Repetitive Life Cycle

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## Manually Defining a Schedule

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### **Manually Defining a Schedule**

You can manually define repetitive schedules using the Repetitive Schedules window.

You can define as many schedules as you need for each assembly and production line combination.

You can specify a line and Oracle Work in Process defaults the scheduling method, routing, bill, WIP accounting class, supply type, and completion subinventory or locator tied to the line.

(Help) Oracle Manufacturing Applications > Oracle Work in Process >  
Repetitive Manufacturing > Creating Repetitive Schedules >  
Defining Repetitive Schedules Manually

### Repetitive Schedule Elements

- **Daily Quantity:** The number of completed assemblies that you plan to produce each day. The daily rate can be any positive number, including decimals.
- **Days:** The number of days that you plan to work, from the first unit start date to the last unit start date. The processing days can be any positive number, including decimals.
- **Total Quantity:** The number of completed assemblies that you plan to produce.

**Note:** If you enter any two of the three values, the third one is automatically computed.

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## Repetitive Schedule Dates

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### Repetitive Schedule Dates

Date	Description
First Unit Start Date (FUSD)	The date and time you plan to begin production of the first assembly on a repetitive schedule
	Equal to start of lead time
First Unit Completion Date (FUCD)	The date and time you plan to complete production of the first assembly on a repetitive schedule
	Equal to FUSD plus the lead time

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#### Note

You do not have to enter all the dates and times mentioned previously when defining a schedule manually. You can enter any one of the dates, the total quantity, and the daily quantity (or days) and Oracle Work in Process calculates the remaining three dates.

You can define a schedule with past dates.

You cannot overlap repetitive schedules for the same assembly on the same line. For example, if the last unit start date on the previous schedule is 01-FEB-2001 at 12:00, then the first unit start date of the next schedule for that assembly on that line must be at least 01-FEB-2001 at 12:01.

## More Dates

---

More Dates	
Date	Description
Last Unit Start Date (LUSD)	The date and time you plan to begin production of the last assembly on a repetitive schedule
	Calculated based on the FUSD, repetitive processing days, and hourly production rate
Last Unit Completion Date (LUCD)	The date and time you plan to complete production of the last assembly on a repetitive schedule
	Equal to LUSD plus the lead time

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### Revisions

**Bill revision:** The bill revision and revision date determine the version of the bill of material that Oracle Work in Process uses to create the material requirements for the repetitive schedule. It uses the revision and revision date for the assembly based on the schedule's first unit start date to create the material requirements. You can enter any valid revision or revision date.

**Routing revision:** The routing revision and revision date determine the version of the routing that Oracle Work in Process uses to create the operations for the repetitive schedule. It uses the revision and revision date for the assembly based on the schedule's first unit start date to create the schedule's operations. You can enter any valid revision or revision date.

**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.

**Note:** The default revision and revision date are not displayed when you define a schedule. Oracle Work in Process displays the actual revision and revision date used after the schedule has been defined.

## Repetitive Schedule Statuses

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Repetitive Schedule Statuses	
Status	Description
Unreleased	The schedule is not released to the shop floor. You cannot perform transactions against this schedule.
Released	The schedule is available to begin production.
Complete	You have completed the schedule but can still perform transactions on the schedule.
Complete—No Charges	You have completed the schedule and cannot perform any more transactions on the schedule or update its definition. You cannot reverse this status for repetitive schedules.
On Hold	You have placed the job on hold and cannot perform any transactions on it.

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### Repetitive Schedule Statuses

With repetitive schedule statuses you can describe various stages in the life cycle of a repetitive schedule and control activities that you can perform on the schedule.

- Oracle Work in Process assigns some of these statuses based on events. For example, Oracle Work in Process automatically updates a schedule to Complete-No Charges and updates the status of the next schedule to Released when you complete all the assemblies on the first schedule.
- You can define a schedule with one of the following statuses: Unreleased, Released, or Hold.

## More Statuses

---

### More Statuses

Status	Description
Canceled	You have canceled the schedule before completing it. You cannot perform transactions on the schedule or update its definition. You cannot reverse this status for repetitive schedules.
Pending—Mass Loaded	You have implemented a suggested repetitive schedule as a pending schedule from the Open Job and Schedule Interface or from the Planner Workbench window in Oracle Planning. You cannot perform transactions on the schedule or update its definition.

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### Note

There is no Closed status for individual repetitive schedules because they are period costed.

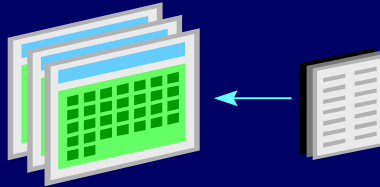


## Repetitive Schedule Attachments

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### Repetitive Schedule Attachments

- You can attach any number of attachments to a repetitive schedule.
- You can add these attachments when defining a schedule or later as necessary. For example, you can highlight special line sequencing instructions by attaching an appropriate document or graphic.



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## Review Question

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### Review Question

**Which statuses allow you to perform transactions against the schedule?**

- **Unreleased**
- **Released**
- **Complete**
- **Complete—No Charges**
- **On Hold**
- **Canceled**
- **Pending—Mass Load**

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### Answer to Review Question

**Which statuses allow you to perform transactions against the schedule?**

- Unreleased
- **Released**
- **Complete**
- Complete—No Charges
- On Hold
- Canceled
- Pending—Mass Load

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## Lesson 3: Creating Operations and Resource Requirements

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### Lesson 3: Creating Operations and Resource Requirements

- Lesson 1: Overview
- Lesson 2: Defining repetitive schedules
- **Lesson 3: Creating operations and resource requirements**
- Lesson 4: Creating material requirements
- Lesson 5: Updating repetitive schedules
- Lesson 6: Summary

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## Operations and Resource Requirements

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### Operations and Resource Requirements

**When you define a repetitive schedule, Oracle Work in Process creates operations and resource requirements based on the routing of the assembly.**

Operations		
Op Seq	Operation Description	Department
10	Assemble Upgrade Kit	UPGRADE
20	Package Upgrade Kit	UPGRADE

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### Creating Operations

The routing now becomes a work-in-process routing that can be modified without affecting the manufacturing routing.

### Creating Resource Requirements

Resources associated with the operations on a routing represent activities that should be performed at the operation.

Upon schedule definition, Oracle Work in Process calculates the resource requirements for the schedule.

For item-based resources:

$$\text{Resource requirements} = \text{Resource usage rate} * \text{Job quantity}$$

For lot-based resources:

$$\text{Resource requirements} = \text{Resource usage rate} * 1$$

**Note:** You cannot create resource requirements without operations.

## Resource Requirements

---

### Resource Requirements

Resource Requirements						
Op Seq	Res Seq	Resource Code	Basis Type	Usage Rate	Required Qty	Scheduled
10	10	LBR-UPGRAD	Item	.1	20	no
20	10	PAK-UPGRAD	Item	.1	20	no

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### Example

Assume a repetitive schedule for the Envoy Upgrade Pack assembly on the Case production line. The daily rate is 50 and the repetitive processing days is 4. This results in a system-calculated total quantity of 200.

When you apply the formula for item-based resources, the result is:

Resource requirements = .1 \* 200 = 20

For explanation of the usage rate, refer to the Lead Time Management topic in Oracle's Bills of Material application.

## Review Question

---

### Review Question

**You can create resource requirements without operations.**

- True
- False

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## Answer to Review Question

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### Answer to Review Question

**You can create resource requirements without operations.**

- True
- **False**

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## Lesson 4: Creating Material Requirements

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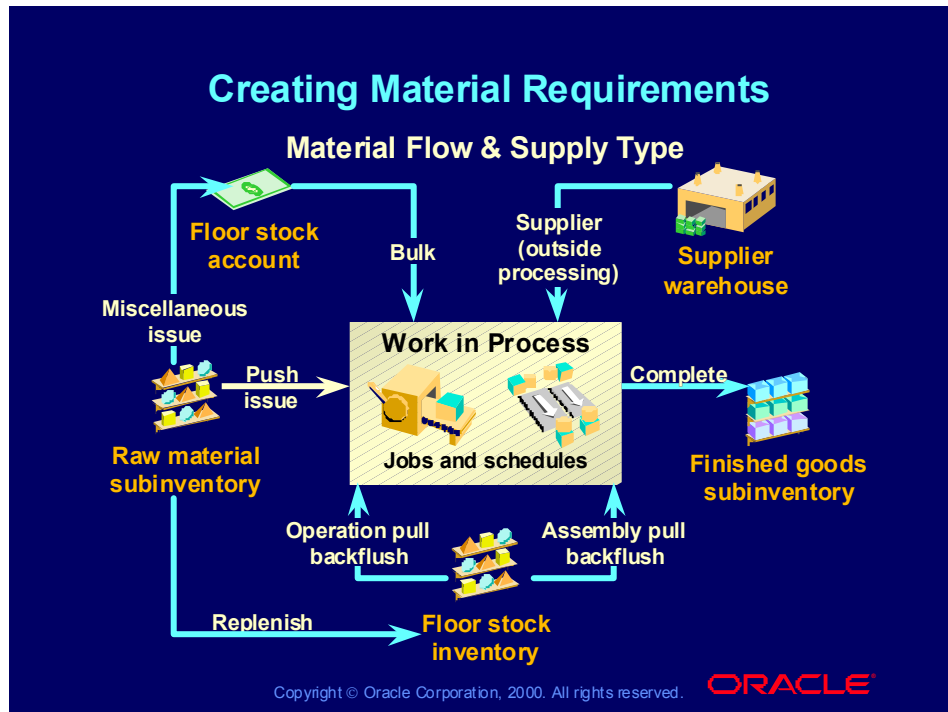
### Lesson 4: Creating Material Requirements

- Lesson 1: Overview
- Lesson 2: Defining repetitive schedules
- Lesson 3: Creating operations and resource requirements
- **Lesson 4: Creating material requirements**
- Lesson 5: Updating repetitive schedules
- Lesson 6: Summary

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## Creating Material Requirements



### Overview

When you define a repetitive schedule, Oracle Work in Process creates material requirements for the appropriate components based on the specified bill of material. You can use supply types to control how to supply your components to fulfill material requirements for the schedule.

The single level bill of material is exploded. It now becomes a work in process bill of material that you can modify without affecting the manufacturing bill of material.

Subassemblies and components become material requirements. Phantom assemblies do not become requirements. Their bills are exploded and the components become material requirements.

Each material requirement is associated with an operation on the routing and is assumed to be due at the beginning of that operation each day.

Material requirements = (Component usage / Component yield) \* Schedule quantity

## WIP Supply Types

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WIP Supply Types	
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 schedule when you complete assemblies into inventory.
Bulk	Oracle Work in Process does not automatically transact bulk components to the schedule.

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### Note

You can create material requirements without a routing. Oracle Work in Process creates a default operation sequence 1 to assign the requirements to.

Oracle Planning sees demand from material requirements for repetitive schedules based on the assembly bill bucketed by day.

Supply types are defined on the bill in Oracle Bills of Material.

If you change the supply type in the Repetitive Line/Assembly Associations window, you can override the supply types defined in Oracle Bills of Material for all the components on all the schedules for an assembly and production line combination.

(Help) Oracle Manufacturing Applications > Oracle Work in Process > Associating Lines and Assemblies

## More WIP Supply Types

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### More WIP Supply Types

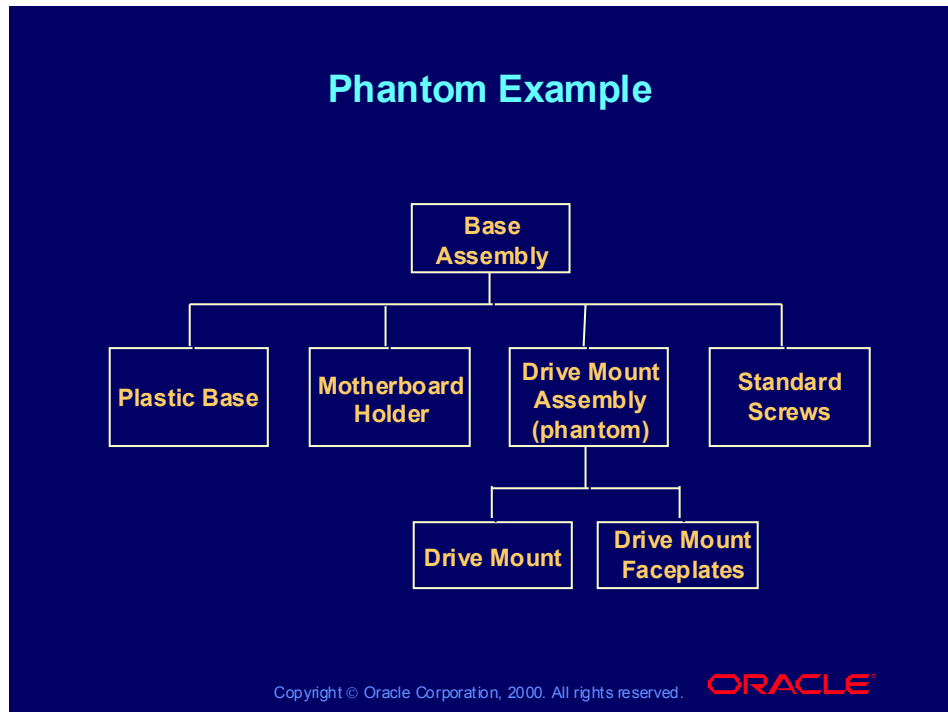
Name	Description
Operation pull	Oracle Work in Process issues operation pull components to a schedule when you complete the operation where the components are consumed.
Push	You issue push components to a schedule using the WIP Material Transaction window in advance of consumption.
Supplier	A supplier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

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## Phantom Example

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## Material Requirements: Example

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### Material Requirements: Example

Op Seq	Component	Supply Type	Qty
10	Envoy Plastic Base	Assembly Pull	200
10	Envoy Motherboard Holder	Assembly Pull	200
10	Envoy Drive Mount	Operation Pull	200
10	Disk Drive Mount—Faceplates	Operation Pull	200
10	Standard Screws	Assembly Pull	2800

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#### Example

The material requirements for the schedule to build 200 Envoy Base assemblies on the EnvBase1 line are shown in the slide.

**Note:** The bill of material was exploded and its components became material requirements. The Envoy drive mount and disk drive mount components were derived from the bill for the Envoy drive mount assembly (phantom component of the base assembly).

## Review Question

---

### Review Question

**When is the material requirement for an operation assumed to be due?**

- 1 When it is moved out of inventory**
- 2 When the previous operation is completed**
- 3 At the beginning of that operation each day**

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## Answer to Review Question

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### Answer to Review Question

**When is the material requirement for an operation assumed to be due?**

- 1 When it is moved out of inventory
- 2 When the previous operation is completed
- 3 **At the beginning of that operation each day**

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## Lesson 5: Updating Repetitive Schedules

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### Lesson 5: Updating Repetitive Schedules

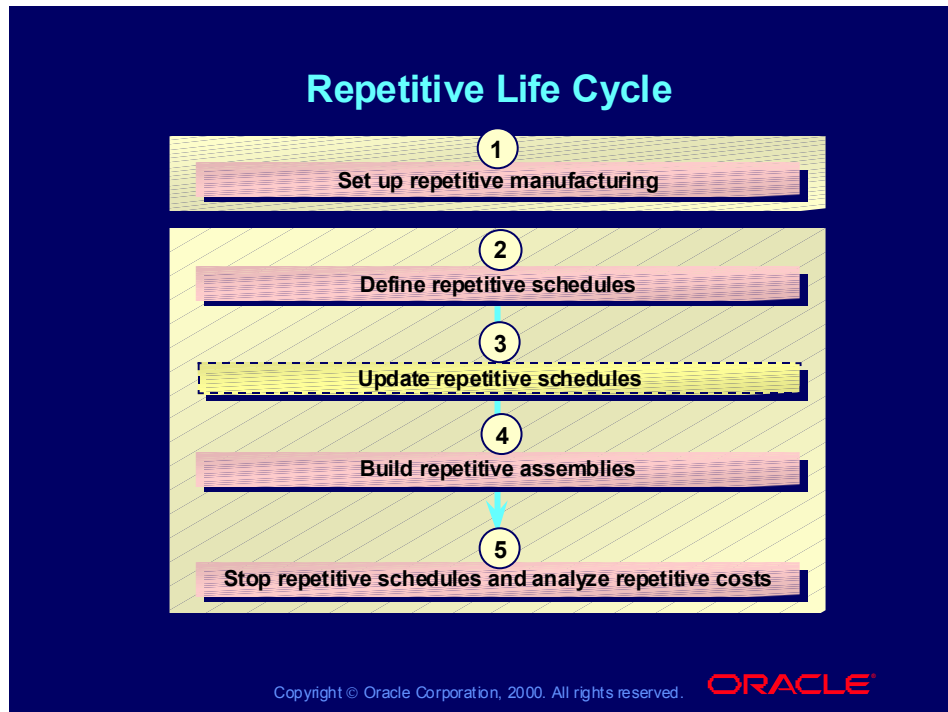
- Lesson 1: Overview
- Lesson 2: Defining repetitive schedules
- Lesson 3: Creating operations and resource requirements
- Lesson 4: Creating material requirements
- **Lesson 5: Updating repetitive schedules**
- Lesson 6: Summary

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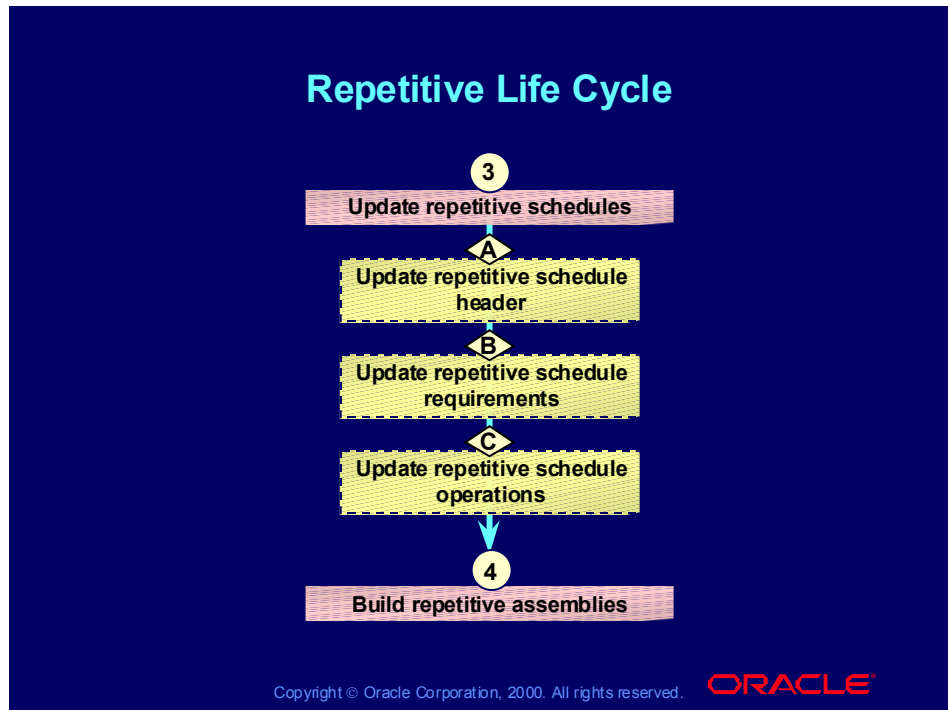
# Repetitive Life Cycle

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## Repetitive Life Cycle

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## Repetitive Schedules Window

**Repetitive Schedules Window**

Field \ Status	Unreleased	Released	On Hold	Complete
Status	✓	✓	✓	✓
Firm	✓	✓	✓	✓
Daily Quantity	✓	✓	✓	✓
Days	✓	✓	✓	✓
Total Quantity	✓	✓	✓	✓
Quantity Completed				
Date Released				
Description	✓	✓	✓	✓
Descriptive Flexfield	✓	✓	✓	✓
Demand Class	✓	✓	✓	✓

(N) WIP > Repetitive > Repetitive Schedules (B) Open

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With Oracle Work in Process, you can update the repetitive schedule header information based on the schedule's status.

### Releasing a Schedule

- You can update a repetitive schedule from Unreleased to Released to release it to the shop floor. This signifies that you are ready to begin building your assemblies.
- When a schedule is released, Oracle Work in Process loads the total quantity into the Queue intraoperation step of the first operation.

### Updating a Repetitive Schedule Status

- If no net charges exist against the schedule and if it is not the only remaining schedule for that assembly, you can unrelease a schedule after releasing it to the shop floor.
- You can put a schedule on hold to momentarily stop the production of your repetitive assemblies.
- You can give a schedule the Complete or Complete—No Charges status to indicate that you finished building your assemblies.
- Unlike discrete jobs, you cannot close repetitive schedules.
- You cannot change a schedule's status from Canceled or Complete—No Charges back to an active status.

## Repetitive Schedules Window

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Repetitive Schedules Window				
Field \ Status	Unreleased	Released	On Hold	Complete
First Unit Start Date/Time (FUSD)	✓	✓	✓	✓
First Unit Completion Date/Time (FUCD)	✓	✓	✓	✓
Last Unit Start Date/Time (LUSD)	✓	✓	✓	✓
Last Unit Completion Date/Time (LUCD)	✓	✓	✓	✓

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### Modifying Repetitive Schedule Dates

- Optionally you can modify any of the dates, times, and processing days in a repetitive schedule.
- In Oracle Work in Process you cannot change dates and times to cause overlapping of schedules for the same assembly on the same line.
- When changing the repetitive processing days, you can decide which date to reschedule your schedule around: first unit start date, first unit completion date, last unit start date, or last unit completion date.
- Changing date or repetitive processing days does not affect the other schedule attributes such as bill revision and supply type.

## Repetitive Schedules Window

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**Repetitive Schedules Window**

Field \ Status	Unreleased	Released	On Hold	Complete
Alternate Bill				
Bill Revision	✓			
Bill Revision Date/Time	✓			
Alternate Routing				
Routing Revision	✓			
Routing Revision Date/Time	✓			

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### Changing Bill and Routing Revisions

- Optionally you can change the bill and routing revisions and dates for any schedule with the status of Unreleased or Pending—Mass Loaded.

**Note:** If you change the First Unit Start Date/Time (FUSD) of an unreleased schedule, Oracle Work in Process does not change the revision and revision date for the bill or routing accordingly. You can update the revision and revision date manually only if the schedule is unreleased.

### Changing Attachments

You can attach, update, or delete standard WIP attachments at any time.

## Repetitive Schedule Operations

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### Repetitive Schedule Operations

Repetitive Schedule Status	Add	Update	Delete *
Unreleased	✓	✓	✓
Released	✓*	✓	✓*
On Hold	✓*	✓	✓*
Complete	✓*	✓	✓*

\* See rules.

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### Rules to Delete Operations

- You can delete an operation from an unreleased schedule 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.
- You can add or delete operations from a schedule only if there is only one schedule with a status of Released, Hold, or Complete defined for that assembly on that line.

**Note:** 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.

**Note:** The restriction on adding or deleting operations for repetitive schedules is due to flow charging restrictions. Flow charging is a repetitive transaction method where you charge material, resource, move, and overhead transactions to a specific assembly on a line rather than a specific repetitive schedule.

## Repetitive Schedule Resources

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### Repetitive Schedule Resources

Repetitive Schedule Status	Add	Update	Delete
Unreleased	✓	✓	✓
Released	✓	✓	✓
On Hold	✓	✓	✓
Complete	✓	✓	✓

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### Rules to Delete Resources

You can delete a resource requirement from a repetitive schedule if

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



## Repetitive Schedule Requirements

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### Repetitive Schedule Requirements

Repetitive Schedule 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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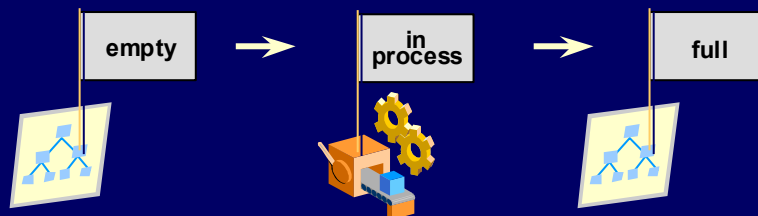
## Using a Production Kanban

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### Using a Production Kanban

Kanbans can also be replenished from an internal organization. The production kanban automatically creates or releases a production job (discrete job, repetitive schedule, or flow schedule).

Refer to the Oracle Inventory User's Guide for complete description of this functionality.



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**(Help) Oracle Manufacturing Applications > Oracle Inventory >  
Inventory Planning and Replenishment >  
Overview of Kanban Replenishment**

## Review Question

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### Review Question

**When you delete an operation, Oracle Work in Process does what with its assigned material requirements?**

- 1 Returns it to inventory**
- 2 Reassigns it to the first or only operation**
- 3 Applies it to the next operation**
- 4 Assigns it to the next schedule**

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## Answer to Review Question

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### Answer to Review Question

**When you delete an operation, Oracle Work in Process does what with its assigned material requirements?**

- 1 Returns it to inventory
- 2 **Reassigns it to the first or only operation**
- 3 Applies it to the next operation
- 4 Assigns it to the next schedule

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## Lesson 6: Summary

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### Lesson 6: Summary

- Lesson 1: Overview
- Lesson 2: Defining repetitive schedules
- Lesson 3: Creating operations and resource requirements
- Lesson 4: Creating material requirements
- Lesson 5: Updating repetitive schedules
- **Lesson 6: Summary**

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### Summary

- You can define a repetitive schedule by specifying the assembly, the production line, the schedule status, at least one date, and two quantities (daily rate, repetitive processing days, total quantity).
- You can define a schedule in three ways:
  - manually define a schedule using the Repetitive Schedules window;
  - implement suggested repetitive schedules from Oracle Planning as pending schedules using the Planner Workbench window;
  - import planned orders from other systems using the Open Job and Schedule interface.

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### Summary

- When you define a schedule, Oracle WIP creates operations, resource requirements, and material requirements that you can later update as necessary.
- You can update the header information of a repetitive schedule based on the status of the schedule.
- You can add, delete, or update operations, resource requirements, and material requirements for a repetitive schedule.
- With a production kanban you can automatically create or release a repetitive schedule.

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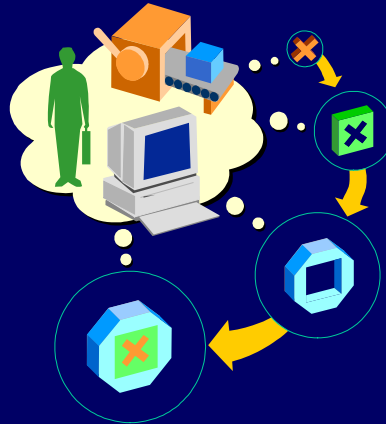
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## Practice 1 Overview

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### Practice 1 Overview

- Describing repetitive schedules



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## Practice 1

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- 1 Why might you want to have different ways of defining repetitive schedules?
- 2 What information about a repetitive schedule might you want to see once it is defined?
- 3 Must you always build the same assembly on the same production line? Why or why not?
- 4 What happens when you define a schedule for an assembly with a bill and routing that do not have matching operation sequences?
- 5 Can you manually define a schedule with a pending status?
- 6 Why would you increase the total quantity on a repetitive schedule?
- 7 Why would you change the dates on a repetitive schedule?

## Practice 1 Solution

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- 1 Why might you want to have different ways of defining repetitive schedules?  
**Business need for schedule definition vary. If you define relatively few schedules and do not use MRP, you may want to use the Repetitive Schedules window. If you use Oracle Planning or another planning system, you may want to use the Planner Workbench or the Import Jobs/Schedules window.**
- 2 What information about a repetitive schedule might you want to see once it is defined?  
**You may want to see the start and end date, the scheduled operations, the resource requirements, and the material requirements.**
- 3 Must you always build the same assembly on the same production line? Why or why not?  
**No, you can build the same assembly on different lines. You can also build different assemblies on the same line.**
- 4 What happens when you define a schedule for an assembly with a bill and routing that do not have matching operation sequences?  
**The material requirements are consumed at the first operation.**
- 5 Can you manually define a schedule with a pending status?  
**No, you cannot. Schedules are assigned a pending status only through the Planner Workbench or the Open Job and Repetitive Schedule Interface. To prevent any activity on a schedule, you can place it on hold.**

6 Why would you increase the total quantity on a repetitive schedule?

**One example would be, you have received additional orders for the same assembly.**

7 Why would you change the dates on a repetitive schedule?

**For example, you just realized that you not be able to start building your assemblies as of the first unit start date. You might also want to update the revision and revision date for either the bill, or the routing, or both.**

## Practice 2 Overview

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### Practice 2 Overview

- Defining a repetitive schedule
- Adding an attachment
- Releasing a repetitive schedule



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## Practice 2

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### Instructions

You are a production manager at Vision in Seattle. You want to build 3600 SB86662 case assemblies repetitively on line Case in 12 days. There are no case assemblies in inventory.

- 1 Define a repetitive schedule.
- 2 Add an attachment to the schedule to indicate that this order is of the first priority (if necessary, define an attachment).
- 3 Release the schedule.

**Note:** Once your schedule is created, navigate to view the resource and material requirements assigned to your schedule.

## Practice 2 Solution

**Practice 2 Solution**

The screenshot shows the 'Repetitive Schedules (M1)' window with the following data:

Line	Case	Case Assembly Line
Assembly	SB86662	Case Assembly
Status	Unreleased	
Daily Quantity	300	Days 12
Quantity Ahead		Total Qty 3600
Days Ahead		Quantity Completed
Date Released		Quantity Scrapped
Description	need to build 3600 units in 12 days	
Start Date	Completion Date	
First Unit	07-AUG-2000 00:00:00	07-AUG-2000 07:01:00
Last Unit	22-AUG-2000 19:27:00	22-AUG-2000 19:28:00
Alternate	Rev	Rev Date
BOM	A	31-JUL-2000 10:56:22
Routing	A	31-JUL-2000 10:56:27

(N) WIP > Repetitive > Repetitive Schedules (B) New

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

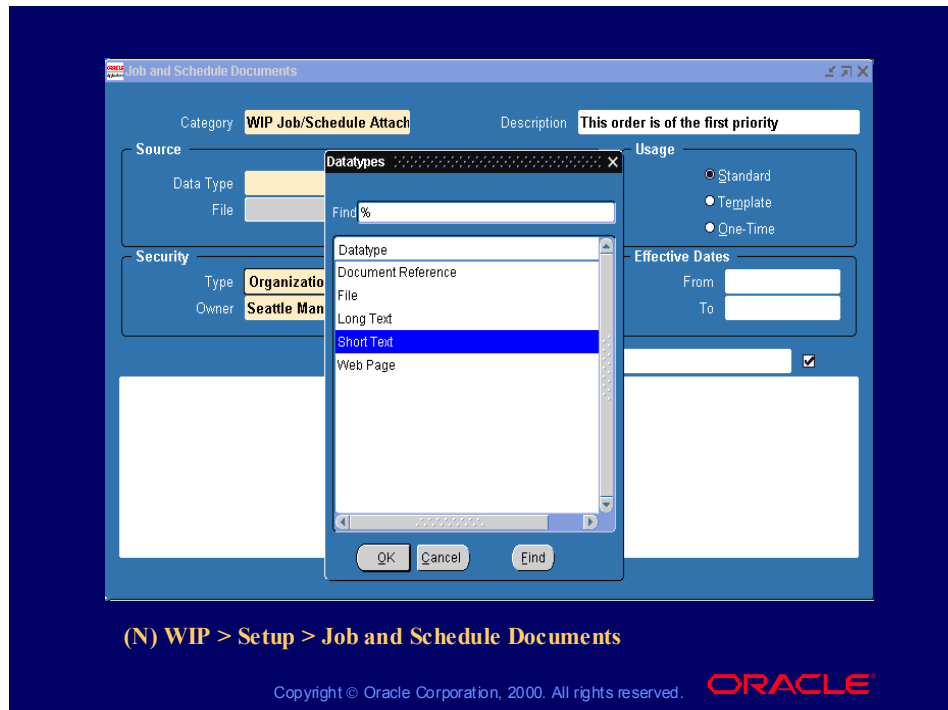
Repetitive Manufacturing > Creating Repetitive Schedules >

Defining Repetitive Schedules Manually

- 1 Navigate to the Repetitive Schedules window. The Repetitive Schedule Summary window appears.
- 2 Click the New button to open the Repetitive Schedules window.
- 3 Select the Case production line and the SB86662 assembly. The status is defaulted to Unreleased but can be changed to Released or On Hold.
- 4 Select the Firm check box to firm your schedule. This prevents MRP from suggesting rescheduling and replanning recommendations when changes to supply or demand occur. Firming a repetitive schedule locks in that schedule's daily quantity as the recommended daily quantity for future schedules using the same line/assembly association.
- 5 Enter the number of days (12) and the total quantity (3600). Note that the daily quantity (300) is automatically calculated. Entering two of the three fields automatically calculates the third.
- 6 Optionally select a demand class.
- 7 Optionally enter a description. It can be used to identify repetitive schedules on standard reports.
- 8 Enter the first unit start date.

- 9 Save your work. The first unit completion date, last unit start date, last unit completion date, bill revision and revision date, and routing revision and revision date are defaulted. Also, the operations, resource requirements, and the material requirements are defaulted for the selected repetitive line/assembly association.

**Note:** Once your schedule is created, navigate to view the resource and material requirements assigned to your schedule.



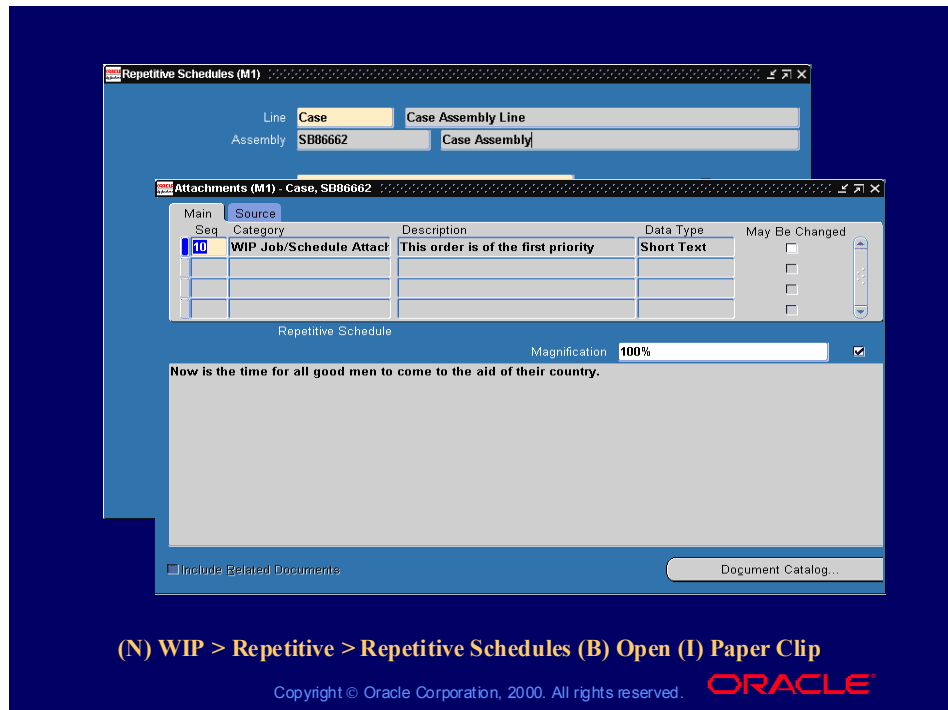
## WIP Standard Attachments

(Help) Oracle Manufacturing Applications > Oracle Work in Process > Setting Up > Defining Job and Schedule Documents

### Defining an Attachment

- 1 Define an attachment.
- 2 Save your work.





## Repetitive Schedules

(Help) Oracle Manufacturing Applications > Oracle Work in Process > Attaching Files to Jobs, Scheduled, and Operations

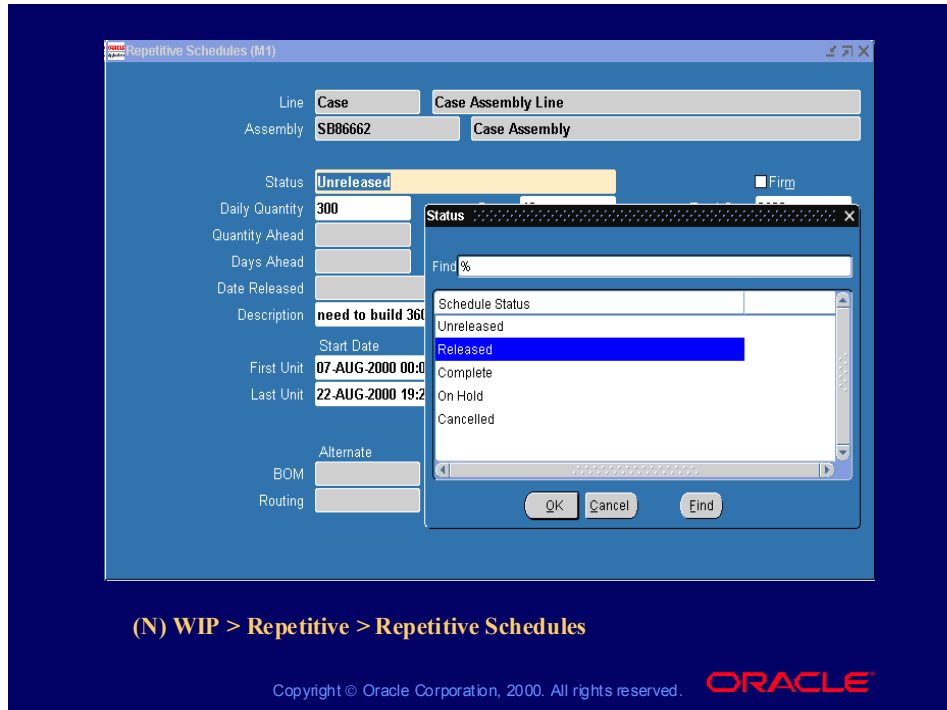
### Attaching Files to Repetitive Schedules

- 1 Navigate to the Repetitive Schedules window and select your schedule.

**Note:** You can define attachments only for schedules that have been saved.

- 2 Select your previously created attachment, using the paper clip icon.
- 3 Save your work.

**Note:** You also can create an attachment in the Repetitive Schedules window without first defining it.



## Repetitive Schedules

(Help) Oracle Manufacturing Applications > Oracle Work in Process > Repetitive Manufacturing > Changing Repetitive Schedules >

(H) Changing Repetitive Schedules

### Releasing Your Schedule

- From the Status pull down list, select Released.
- Save your work.