11*i* Oracle Process Manufacturing Quality Management

Student Guide

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Author

Kevin Brown

Technical Contributors and Reviewers

David Badger, Graceann Iannacchino, Frank Young, Richard Persen,

William Stearns

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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 navigating Oracle applications
- Working experience with production processes

Prerequisites

- There are no prerequisites for this course.

How This Course Is Organized

11i Oracle Process Manufacturing Quality Management 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
Oracle Process Manufacturing Quality Management User's Guide	*A77220-03*

Additional Publications

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

Typographic Conventions

Typographic Conventions in Text

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

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

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

Typographic Conventions in Code

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

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

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

Typographic Conventions in Navigation Paths

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

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

This simplified path translates to the following:

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

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

3. (B) Click the Approve button.

Notations :

(N) = Navigator

(M) = Menu

(T) = Tab

(I) = Icon

(H) = Hyperlink

(B) = Button

Typographical Conventions in Help System Paths

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

The following help navigation path, for example—

(Help) General Ledger > Journals > Enter Journals

—represents the following sequence of actions:

1. In the navigation frame of the help system window, expand the General Ledger entry.
2. Under the General Ledger entry, expand Journals.
3. Under Journals, select Enter Journals.
4. Review the Enter Journals topic that appears in the document frame of the help system window.

Getting Help

Oracle Applications provides you with a complete online help facility.

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

To display help for a current window:

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

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

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

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

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

Searching for Help

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

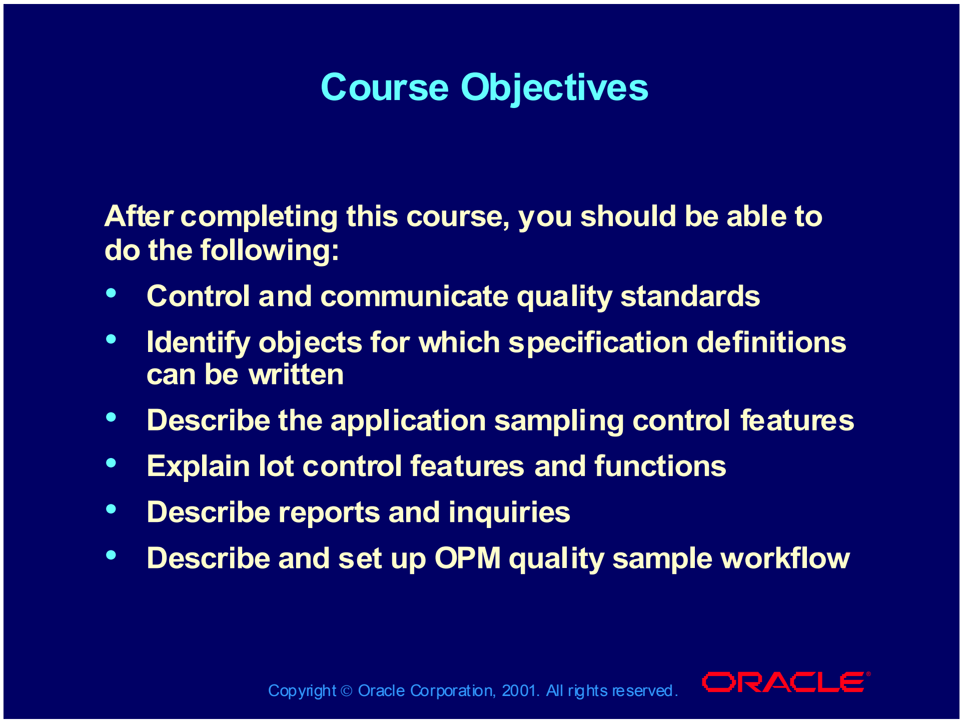
A list of titles, ranked by relevance and linked to the documents in question, is returned from your search in the right-hand document frame. Click on whichever title seems to best answer your needs to display the complete document in this frame. If the document doesn't fully answer your questions, use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

11*i* Oracle Process Manufacturing Quality Management

Chapter 1

11*i* Oracle Process Manufacturing Quality Management

Course Objectives

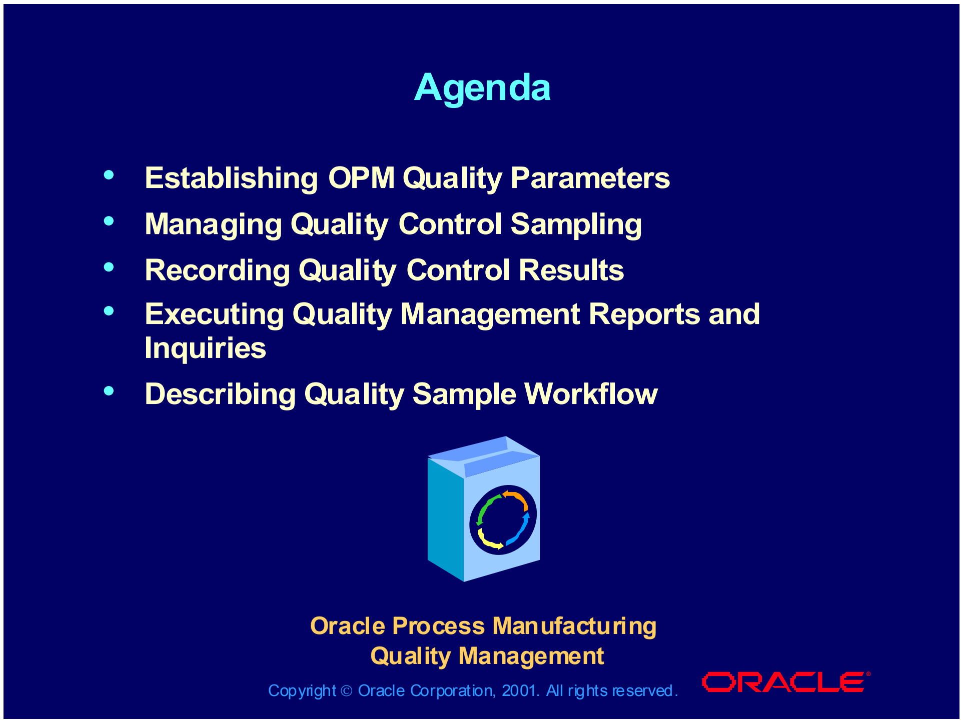


Course Objectives

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

- Control and communicate quality standards
- Identify objects for which specification definitions can be written
- Describe the application sampling control features
- Explain lot control features and functions
- Describe reports and inquiries
- Describe and set up OPM quality sample workflow

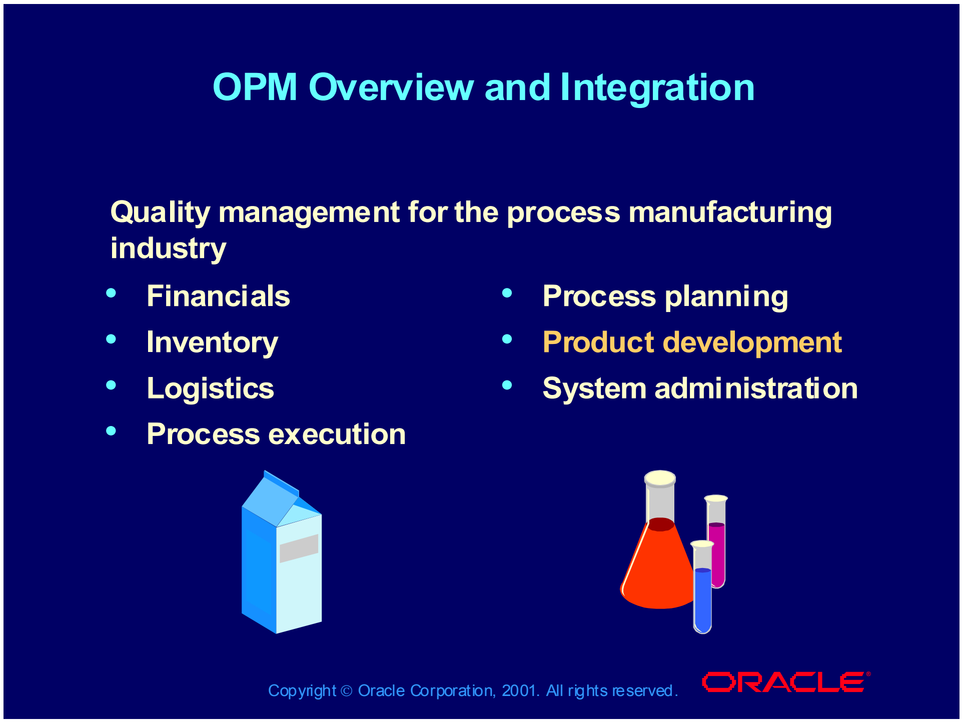
Agenda



Agenda

- Establishing OPM Quality Parameters
- Managing Quality Control Sampling
- Recording Quality Control Results
- Executing Quality Management Reports and Inquiries
- Describing Quality Sample Workflow

Oracle Process Manufacturing
Quality Management



OPM Overview and Integration

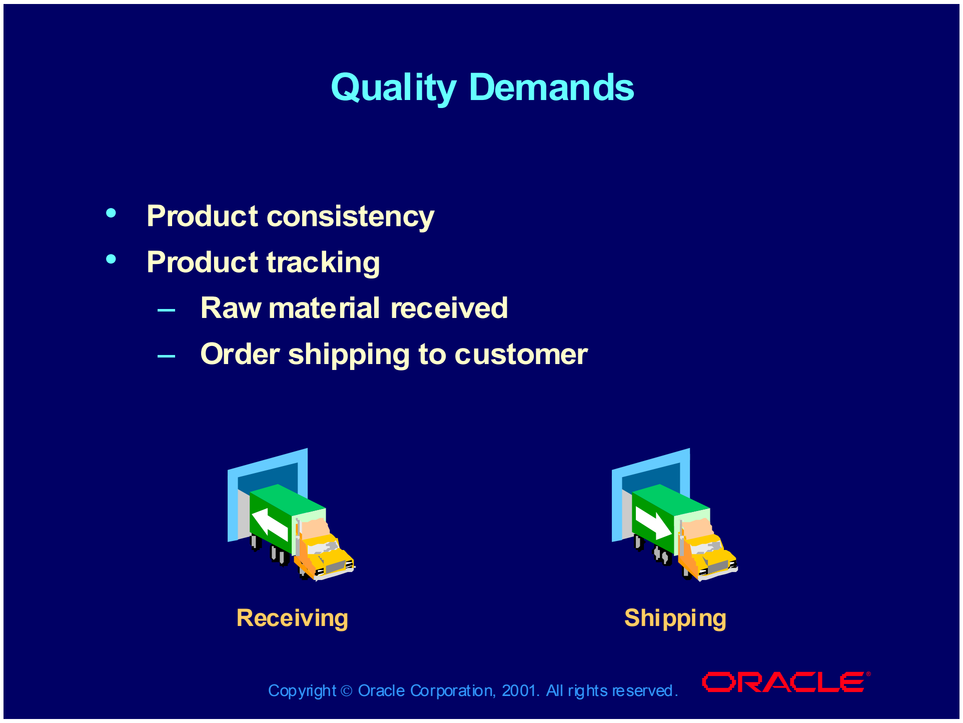
Quality management for the process manufacturing industry

- Financials
- Inventory
- Logistics
- Process execution
- Process planning
- Product development
- System administration

OPM Overview and Integration

The Quality Management and Lab Management modules are components of the Product Development application.

Quality Demands



Quality Demands

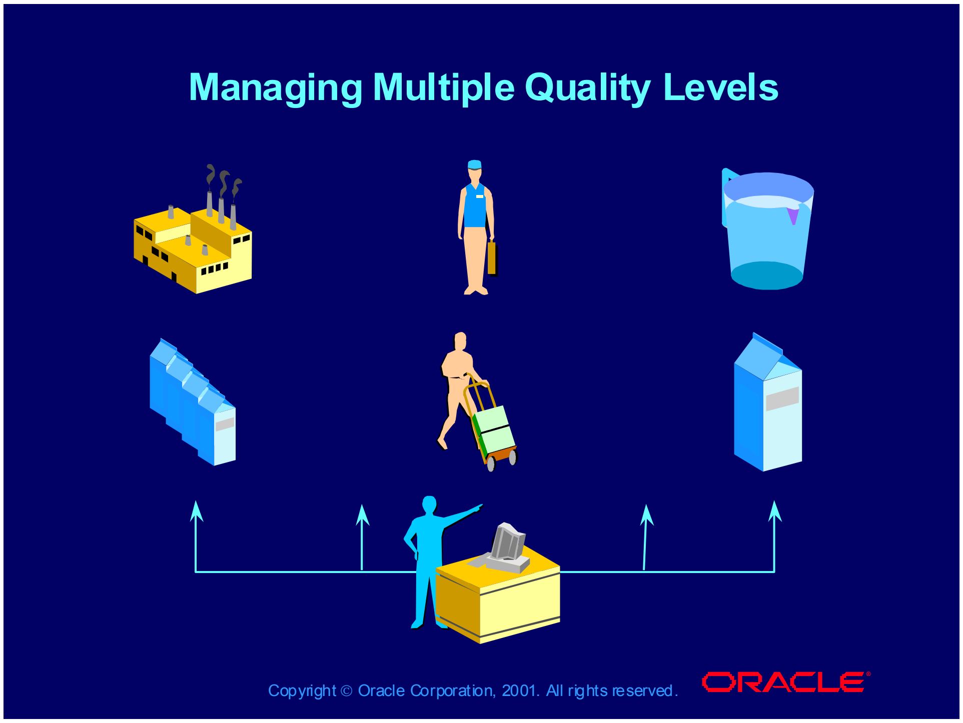
- Product consistency
- Product tracking
  - Raw material received
  - Order shipping to customer

Receiving

Shipping

Quality Demands

Quality tracking begins with raw material procurement and ends with order shipping. For example, you can incorporate required raw material characteristics into purchase orders to inform suppliers of material quality requirements. Upon receipt, raw materials are tested, and the results are measured against specified characteristics.


Managing Multiple Quality Levels
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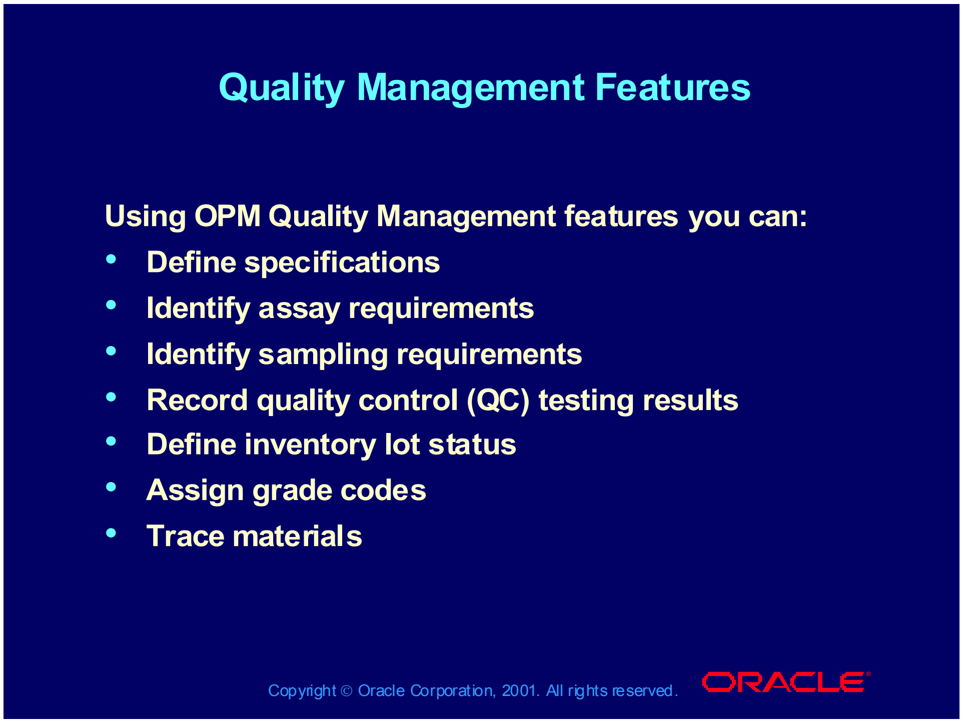
Managing Multiple Quality Levels

The Quality Management module provides total system flexibility, helping you to meet customer quality demands. Quality tracking begins with raw material procurement and ends with order shipping. For example, you can incorporate required raw material characteristics into purchase orders to inform suppliers of material quality requirements. Upon receipt, raw materials are tested, and the results are measured against specified characteristics.

Quality Management Features

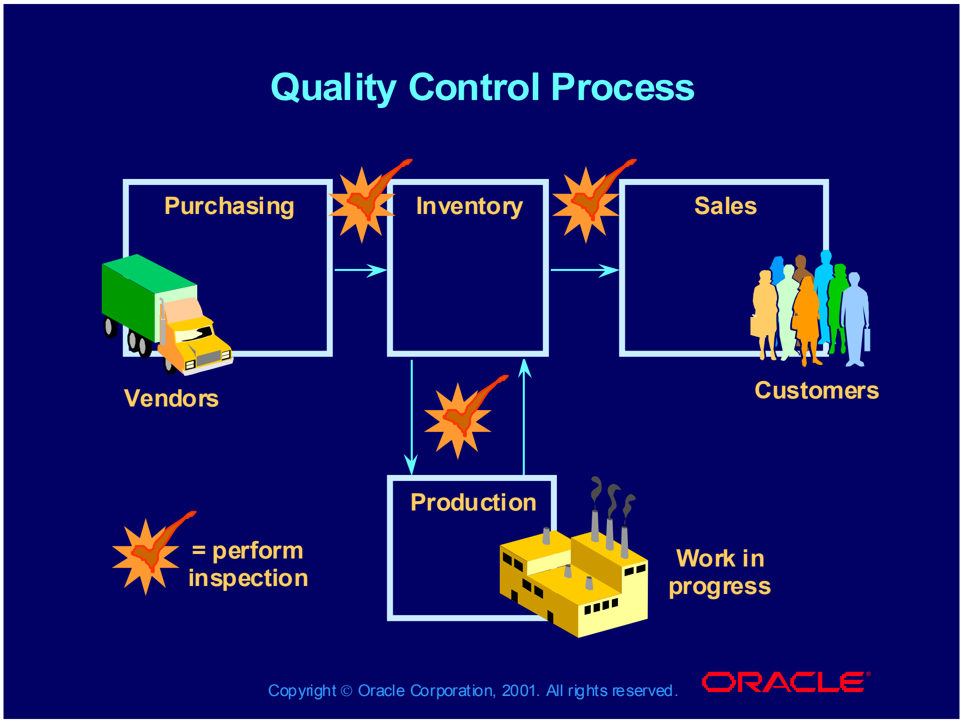


Quality Management Features

Using OPM Quality Management features you can:

- Define specifications
- Identify assay requirements
- Identify sampling requirements
- Record quality control (QC) testing results
- Define inventory lot status
- Assign grade codes
- Trace materials

Quality Control Process



Quality Control Process

Purchasing

Inventory

Sales

Vendors

Customers

Production

Work in progress

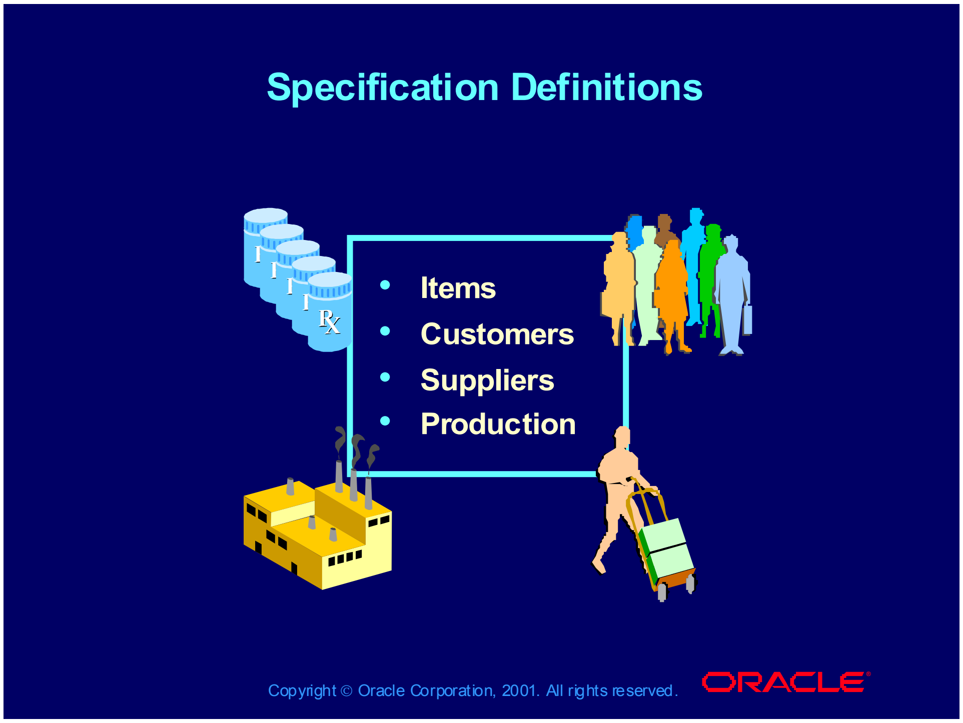
= perform inspection

Quality Control Process

Using the OPM Quality Management module, you can monitor quality at all levels of your manufacturing process. You can record inspection results and modify inventory status at the following manufacturing points:

- Purchased stock
- Produced goods
- Goods in inventory for potential sale

Specification Definitions



Specification Definitions

- Items
- Customers
- Suppliers
- Production

Specification Definitions

Using specification management, you can identify and support quality targets. Assays link together to form quality specifications.

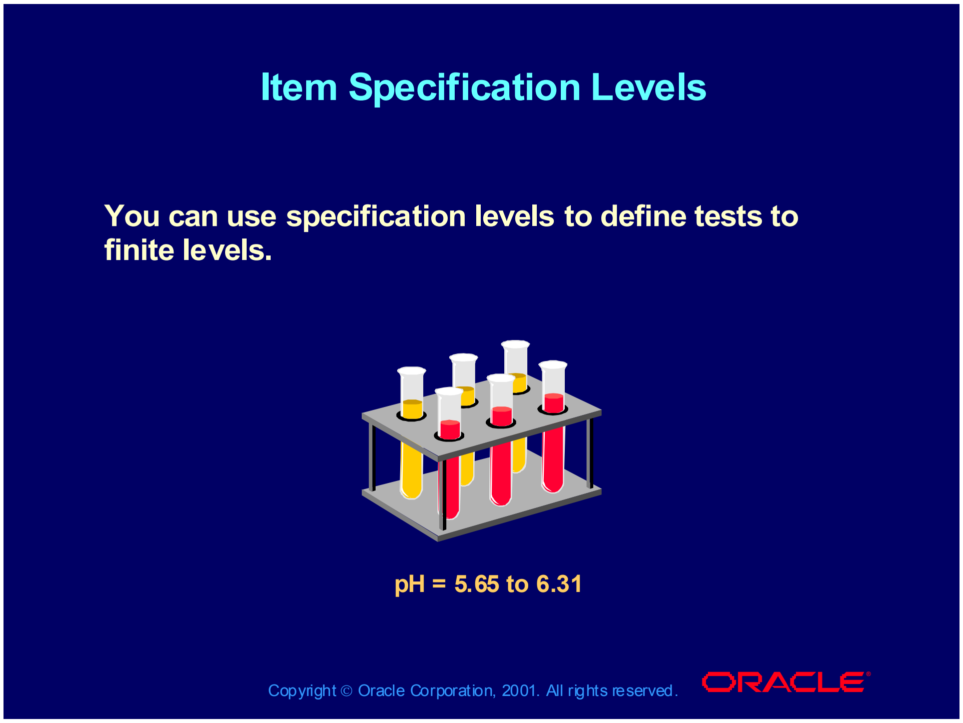
With Quality Management, you can develop specification definitions for:

- Inventory items
- Customer orders
- Supplier goods
- Production batches

For example, you can establish multiple specifications for an item and define the tests to be performed to ensure that the material meets specifications. You can also identify the actions to be taken on material that is “out-of-spec.”

You may want to ask students to give examples from their businesses for which they would develop specification definitions.

Item Specification Levels



Item Specification Levels

You can use specification levels to define tests to finite levels.

pH = 5.65 to 6.31

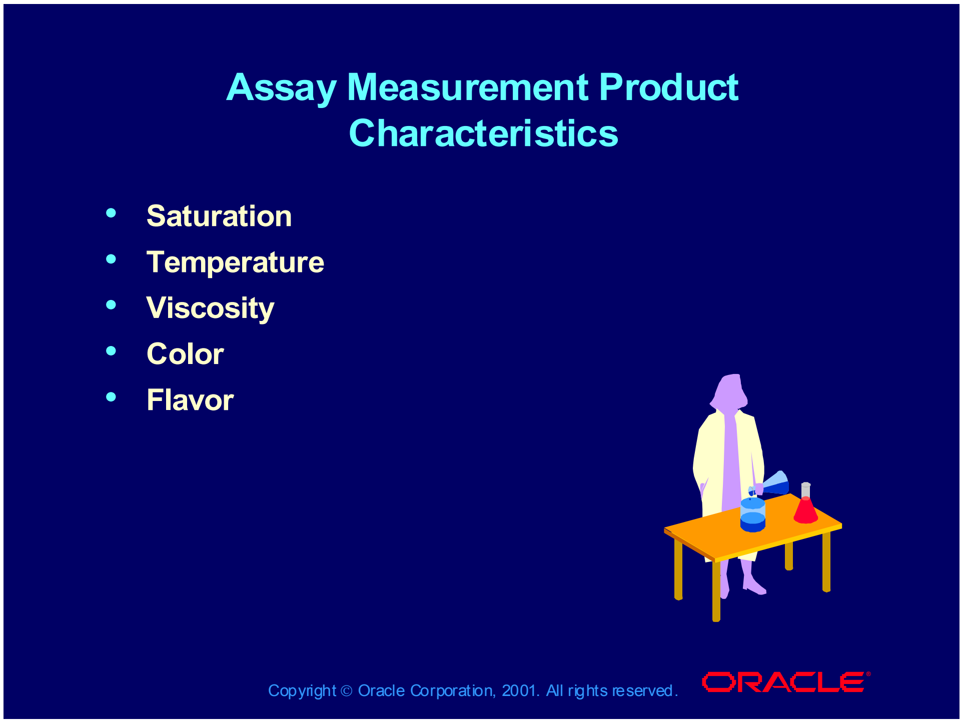
Item Specification Levels

You can use the specification functions to further refine assay information to finite levels.

As an example, a finite level for pH might be 5.65 through 6.31 within a global specification of 1 through 14. You can link action codes to out-of-spec or expired material.

Assay expiration date and preference code entry provide additional flexibility. You can require assay revalidation, such as when new equipment becomes available. You can deactivate manual-type tests by using automatic testing with expiration dates.

Assay Measurement Product Characteristics



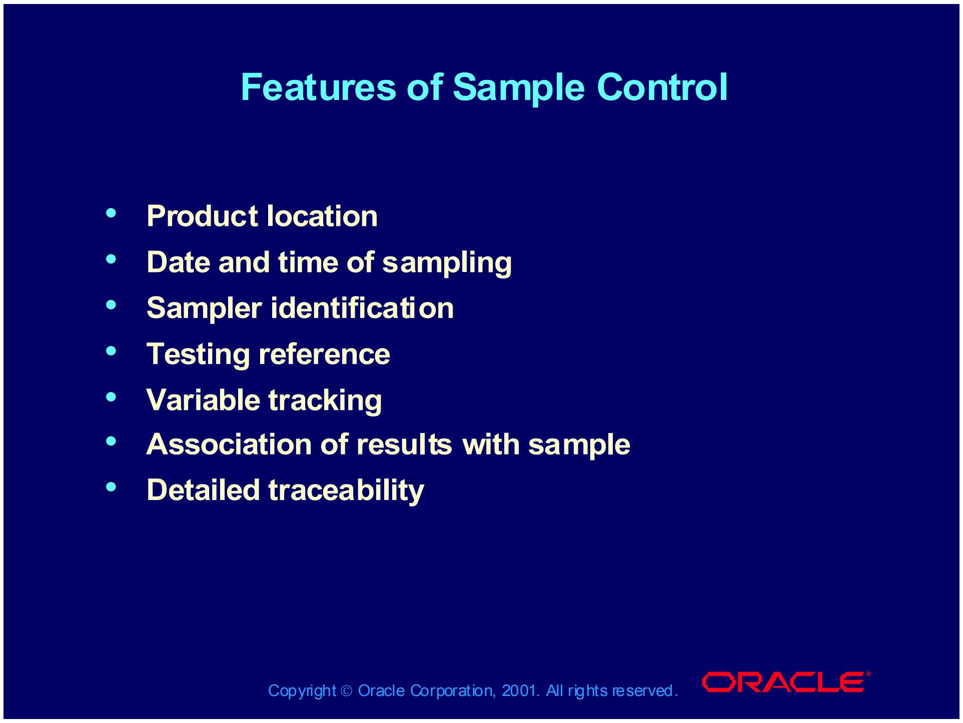
Assay Measurement Product Characteristics

- Saturation
- Temperature
- Viscosity
- Color
- Flavor

Assay Measurement Product Characteristics

Assays are quality measurements or tests that are the basis for specifications. With the Quality Management module, you can identify the assay requirements needed to measure product characteristics. Assays can encompass characteristics such as saturation, temperature, viscosity, color, or flavor.

Features of Sample Control



Features of Sample Control

- Product location
- Date and time of sampling
- Sampler identification
- Testing reference
- Variable tracking
- Association of results with sample
- Detailed traceability

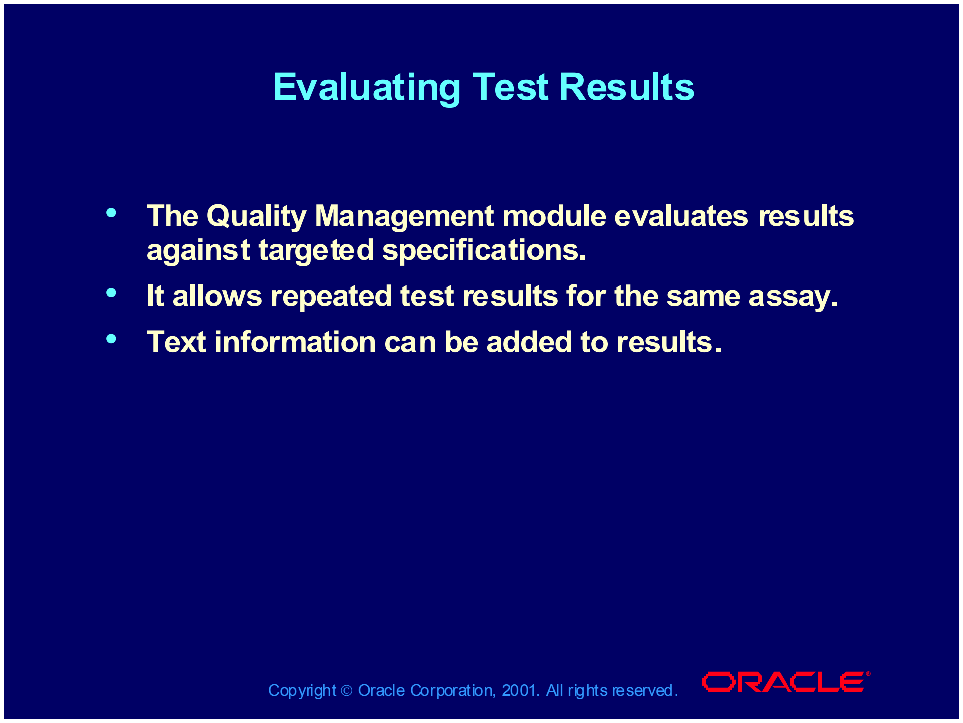
Features of Sample Control

You may frequently need to sample material directly from inventories, suppliers, or production orders. Sampling must include logging critical information about sampled materials, their locations, the dates and times of the samplings, and the sampler identifications. Once a sample is drawn, all testing is referenced to it. Using sample control, you can track the variables associated with each sample.

Additionally, sample control allows testing environments to associate important results with the correct sample accurately, supporting detailed traceability.

You may want to have students identify the different types of quality control (QC) sampling they do in their businesses.

Evaluating Test Results



Evaluating Test Results

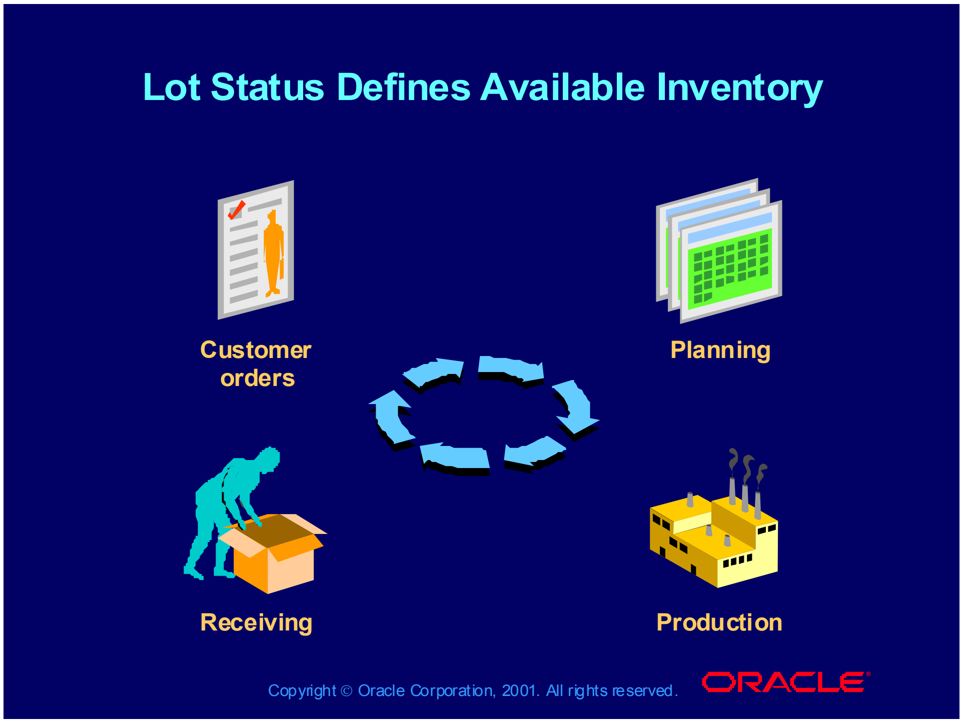
- The Quality Management module evaluates results against targeted specifications.
- It allows repeated test results for the same assay.
- Text information can be added to results.

Evaluating Test Results

Results of the QC tests for particular items, suppliers, customers, and production runs serve a variety of uses, such as providing the basis for action to be taken in formulation or other areas.

You enter results referencing the tested sample, and you can log them against previously established specifications. You can also perform ad hoc testing and entering of results. The Quality Management module evaluates results against targeted specifications to determine acceptance or rejection of the sampled material.

Lot Status Defines Available Inventory



Lot Status Defines Available Inventory

Customer orders

Planning

Receiving

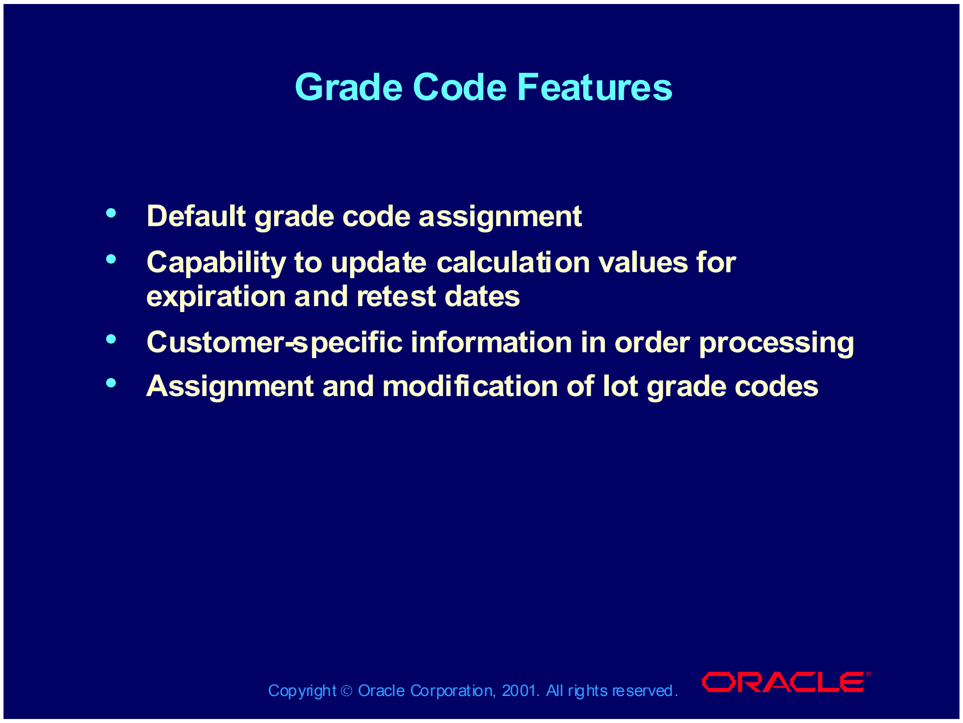
Production

Lot Status Defines Available Inventory

Oracle Process Manufacturing supports complete visibility into inventory lot status. Inventory lot status is managed in OPM Inventory Management. Lot status codes define inventory as available for use in order processing, shipping, production, and planning. You can also flag a lot as not available or as rejected for any business purpose. Lot status changes can be effective immediately, journaled, or performed on an enterprisewide basis, providing control and communication to all affected users. This ensures containment of materials from inappropriate use.

For discussion, you may want to ask students to provide examples of how their businesses assign lot statuses and how they use the statuses in inventory control.

Grade Code Features



Grade Code Features

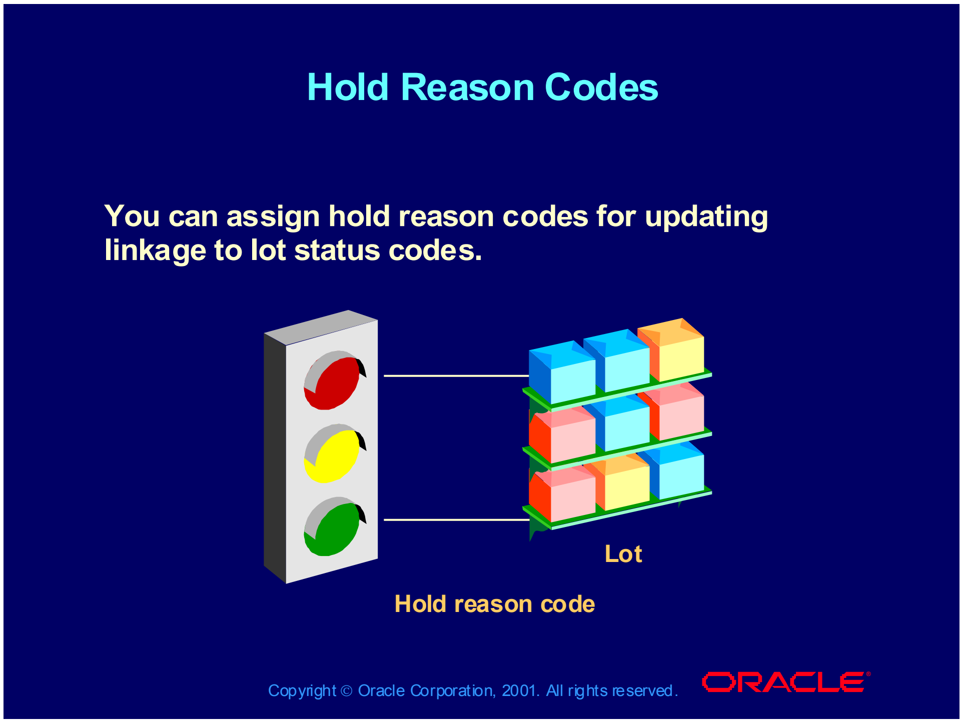
- Default grade code assignment
- Capability to update calculation values for expiration and retest dates
- Customer-specific information in order processing
- Assignment and modification of lot grade codes

Grade Code Features

Grade codes provide the ability to differentiate materials. The environmental factors and ingredient characteristics of a process can cause the manufactured product to have different characteristics. Customers may require varying degrees of purity that also require updating. Grades are enterprise specific. A grade can have different specifications and characteristics for each customer.

Grades are input in OPM Quality Management but are assigned to the item or lot in OPM Inventory Management.

Hold Reason Codes



Hold Reason Codes

You can assign hold reason codes for updating linkage to lot status codes.

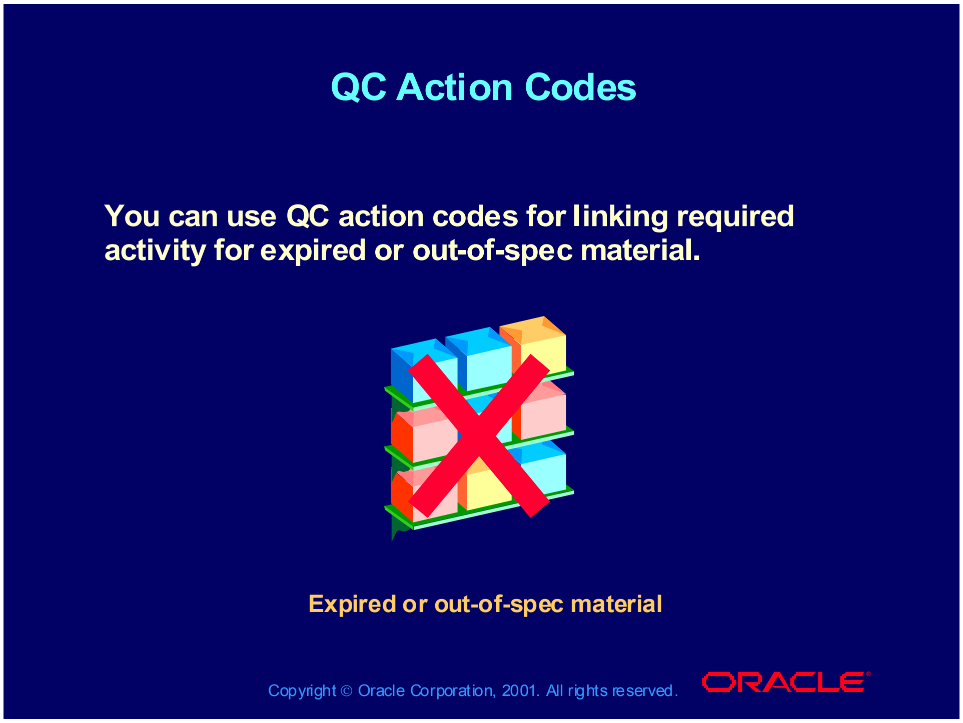
Lot
Hold reason code

Hold Reason Codes

The primary system control tool for QC resides in the lot status function in the Inventory module. Lot status codes have switches that define usage control levels. This function also enables default value assignments for an item code. You can assign a lot status code of QUAR (quarantine) with usage flags set to 0. This disables material usage in Oracle Process Manufacturing. The lot status code QUAR might require chemical or microbiological testing prior to usage.

These flags enable inventory usage in key business activities, but not for shipping. Upon completion of QC testing and result entry, a QC analyst can decide to approve or reject the material and update the lot status code in the Inventory Quantities window found in the Inventory module.

QC Action Codes



QC Action Codes

You can use QC action codes for linking required activity for expired or out-of-spec material.

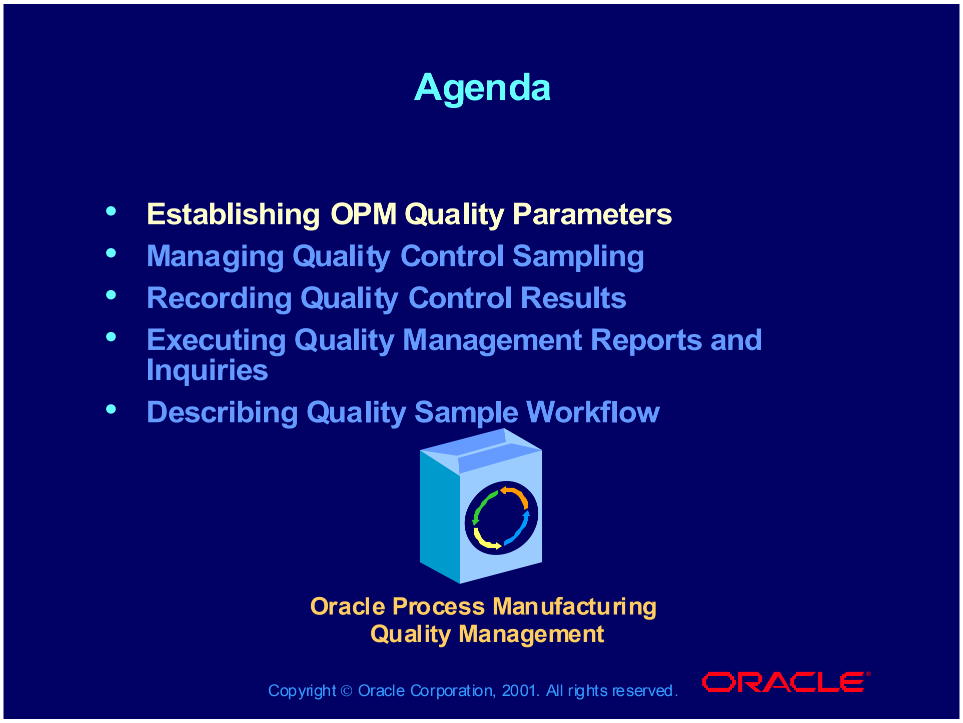
Expired or out-of-spec material

QC Action Codes

Actions are date sensitive. Resetting or regrading of material may be required before lot expiration. Time intervals, either positive or negative days, are part of action code updating. For an action, a positive value of 10 may mean that the material must be disposed of within ten days of expiration. A negative value of –10 may mean that the material must be retested ten days before the expiration date to ensure product characteristics or product purity.

You can update action codes when you define the specifications of the QC object. When you change the specification requirements, click Continue so that you can update action information. Interval defaults are displayed for this QC action code table.

Agenda

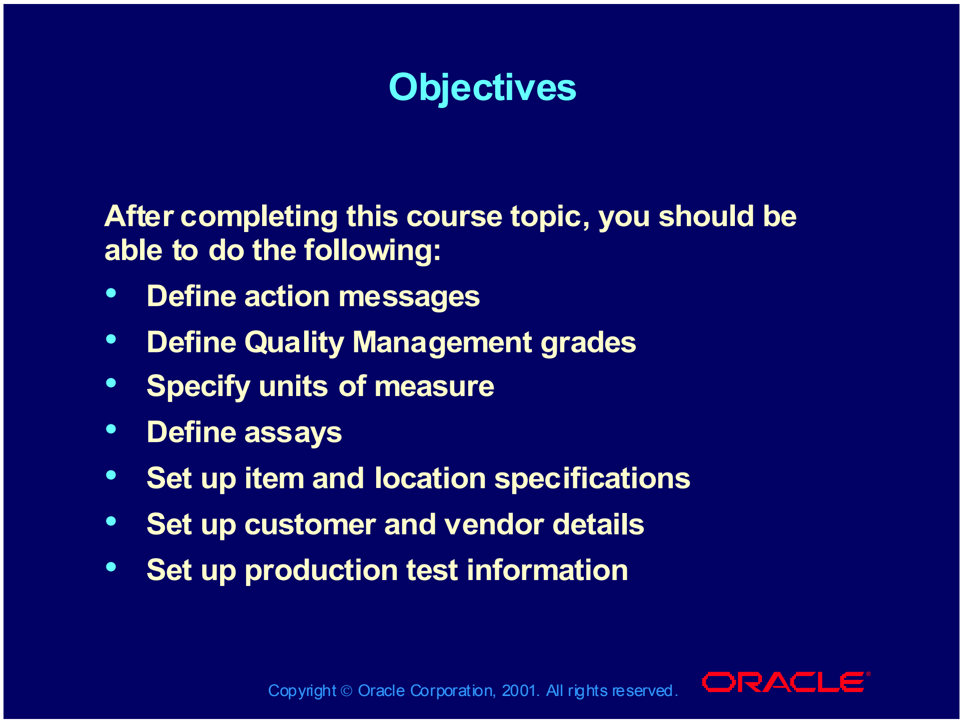


Agenda

- **Establishing OPM Quality Parameters**
- **Managing Quality Control Sampling**
- **Recording Quality Control Results**
- **Executing Quality Management Reports and Inquiries**
- **Describing Quality Sample Workflow**

Oracle Process Manufacturing
Quality Management

Objectives

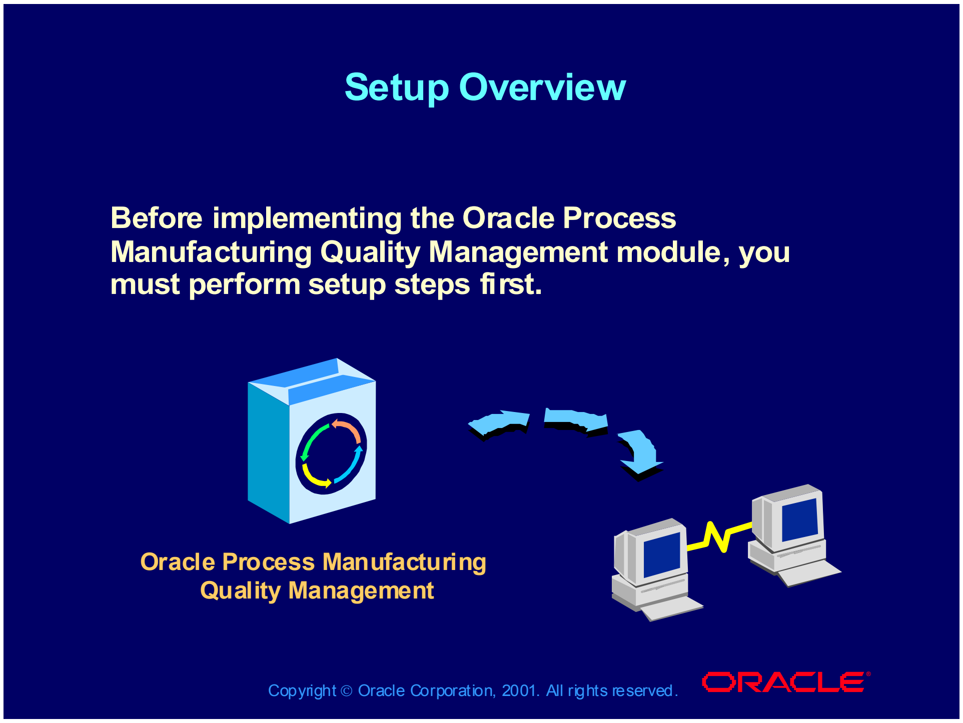


Objectives

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

- Define action messages
- Define Quality Management grades
- Specify units of measure
- Define assays
- Set up item and location specifications
- Set up customer and vendor details
- Set up production test information

Setup Overview

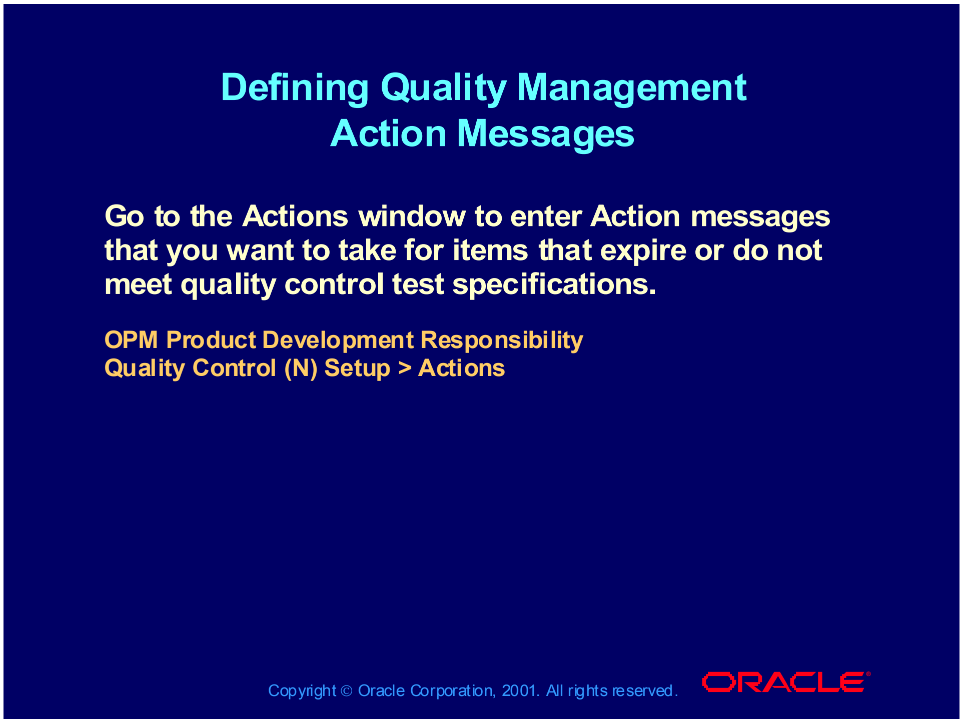


Setup Overview

Before implementing the Oracle Process Manufacturing Quality Management module, you must perform setup steps first.

Oracle Process Manufacturing
Quality Management

Defining Quality Management Action Messages



Defining Quality Management Action Messages

Go to the Actions window to enter Action messages that you want to take for items that expire or do not meet quality control test specifications.

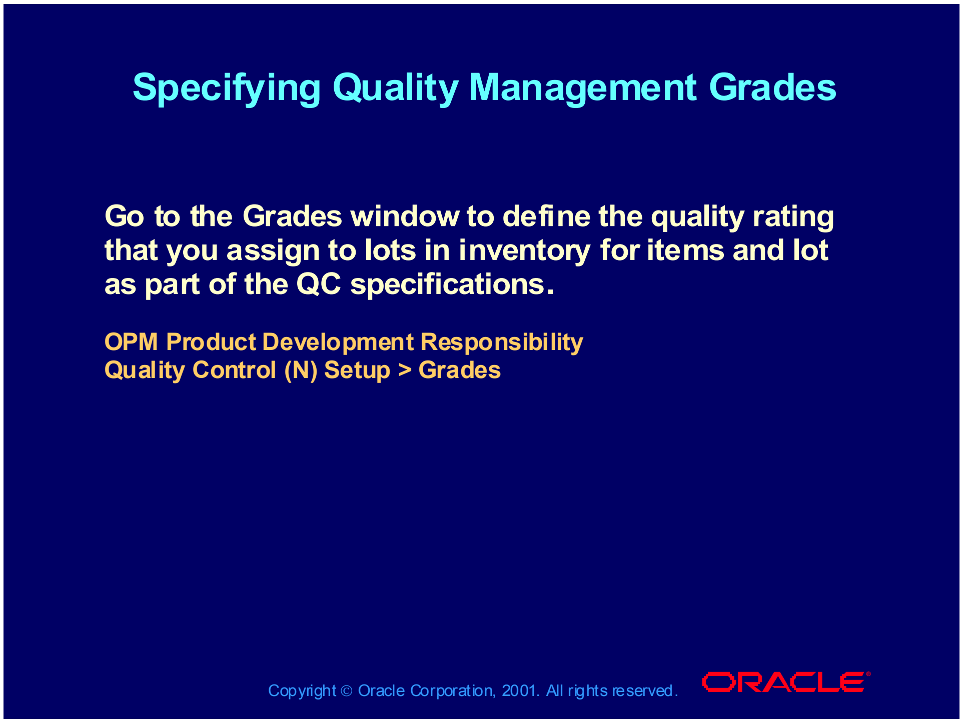
OPM Product Development Responsibility
Quality Control (N) Setup > Actions

(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User's Guide > Quality Control Setup > Setting Up Action Codes

... > Setting Up Action Codes Procedure

... > Action Codes Field Reference

Specifying Quality Management Grades



Specifying Quality Management Grades

Go to the Grades window to define the quality rating that you assign to lots in inventory for items and lot as part of the QC specifications.

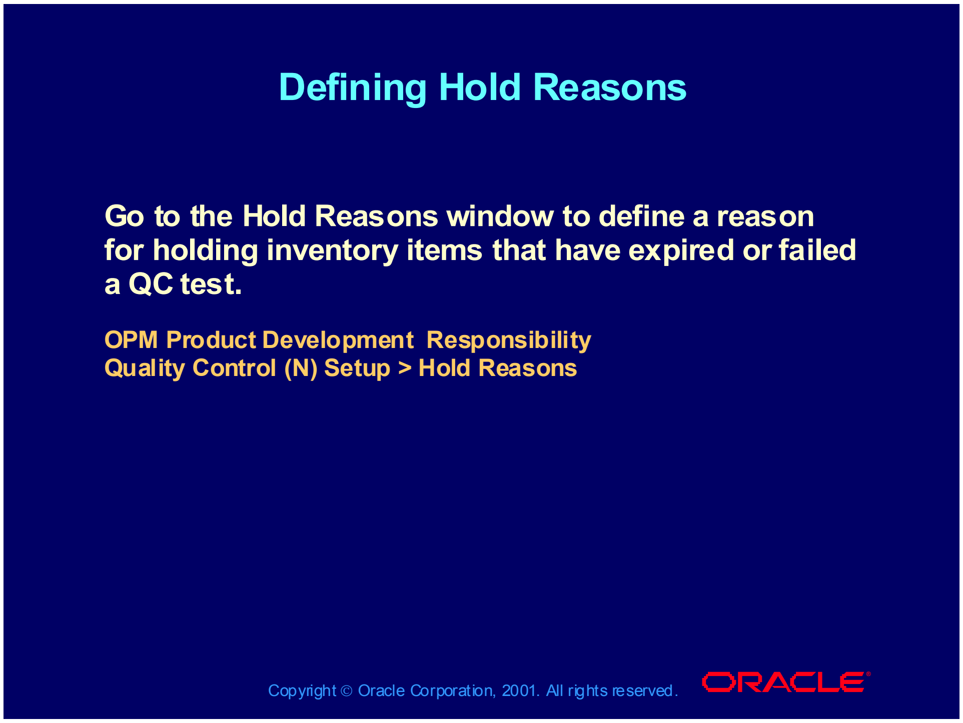
OPM Product Development Responsibility
Quality Control (N) Setup > Grades

(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User's Guide > Quality Control Setup > Setting Up QC Grades

... > Setting Up QC Grades Procedure

... > QC Grades Field Reference

Defining Hold Reasons



Defining Hold Reasons

Go to the Hold Reasons window to define a reason for holding inventory items that have expired or failed a QC test.

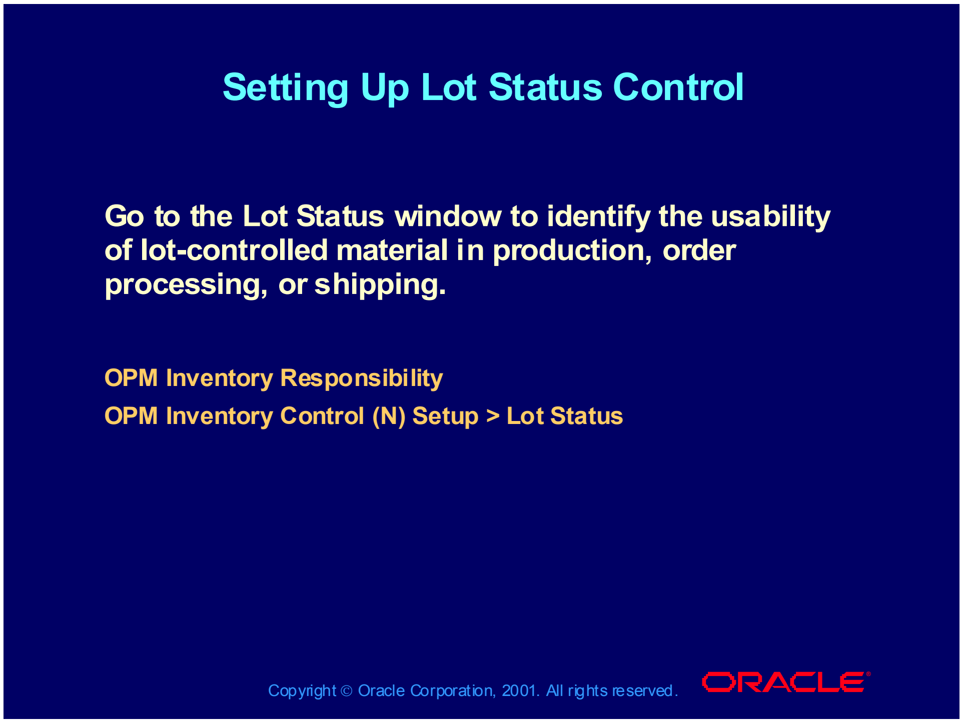
OPM Product Development Responsibility
Quality Control (N) Setup > Hold Reasons

(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User's Guide > Quality Control Setup > Setting Up QC Hold Reasons

... > Setting Up QC Hold Reasons Procedure

... > QC Hold Reasons Field Reference

Setting Up Lot Status Control



Setting Up Lot Status Control

Go to the Lot Status window to identify the usability of lot-controlled material in production, order processing, or shipping.

OPM Inventory Responsibility

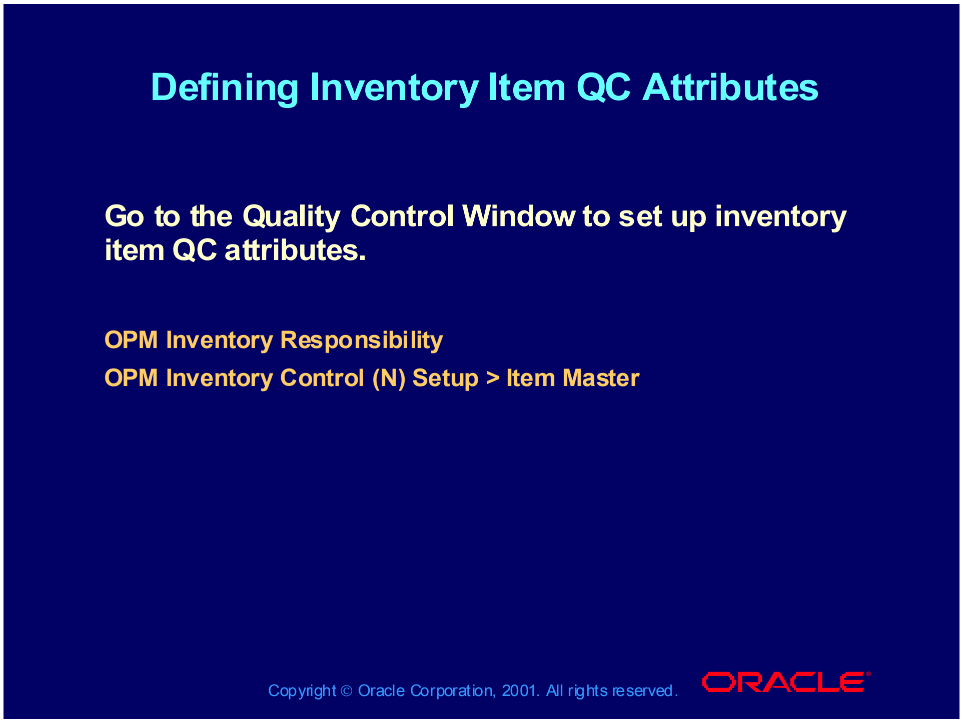
OPM Inventory Control (N) Setup > Lot Status

(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User’s Guide > Quality Control Setup > Setting Up Lot Status Control

... > Setting Up Lot Status Control Procedure

... > Lot Status Control Field Reference

Defining Inventory Item QC Attributes



Defining Inventory Item QC Attributes

Go to the Quality Control Window to set up inventory item QC attributes.

OPM Inventory Responsibility

OPM Inventory Control (N) Setup > Item Master

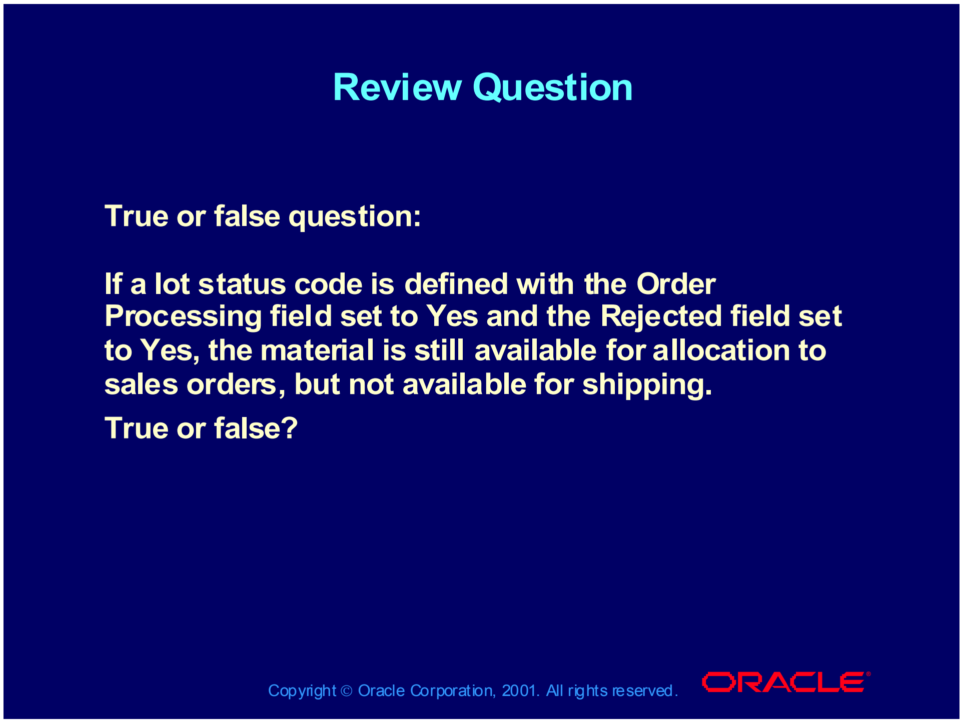
(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User’s Guide > Quality Control Setup > Setting Up Inventory Item QC Attributes

... > Inventory Item QC Attributes Grade Control

... > Setting Up Inventory Item QC Attributes Procedure

... > Inventory Item QC Attributes Field Reference

Review Question



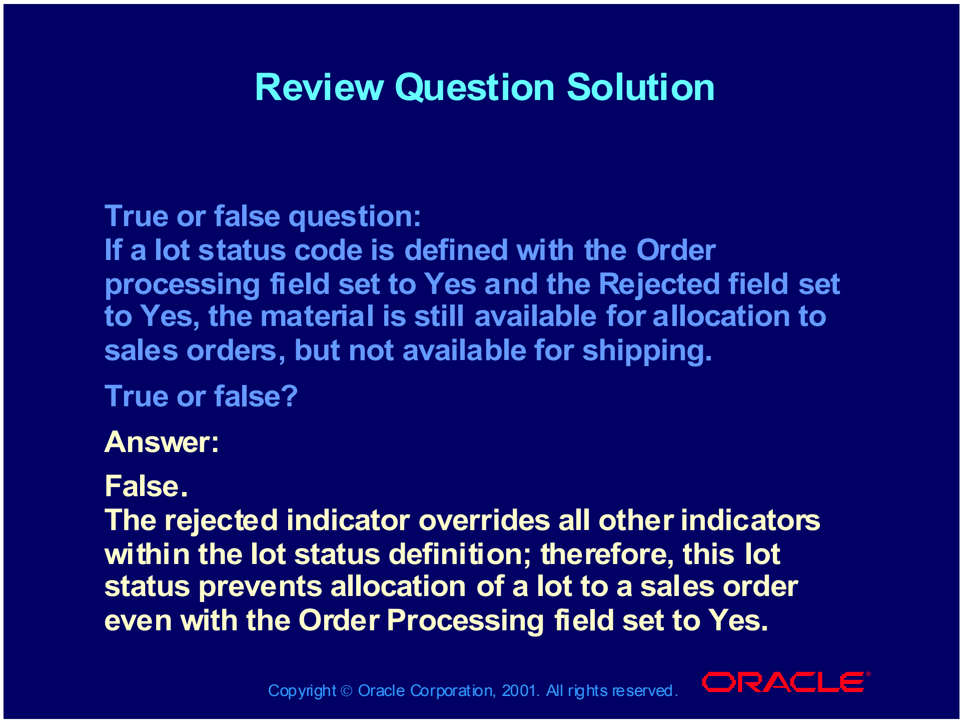
Review Question

True or false question:

If a lot status code is defined with the Order Processing field set to Yes and the Rejected field set to Yes, the material is still available for allocation to sales orders, but not available for shipping.

True or false?

Review Question Solution



Review Question Solution

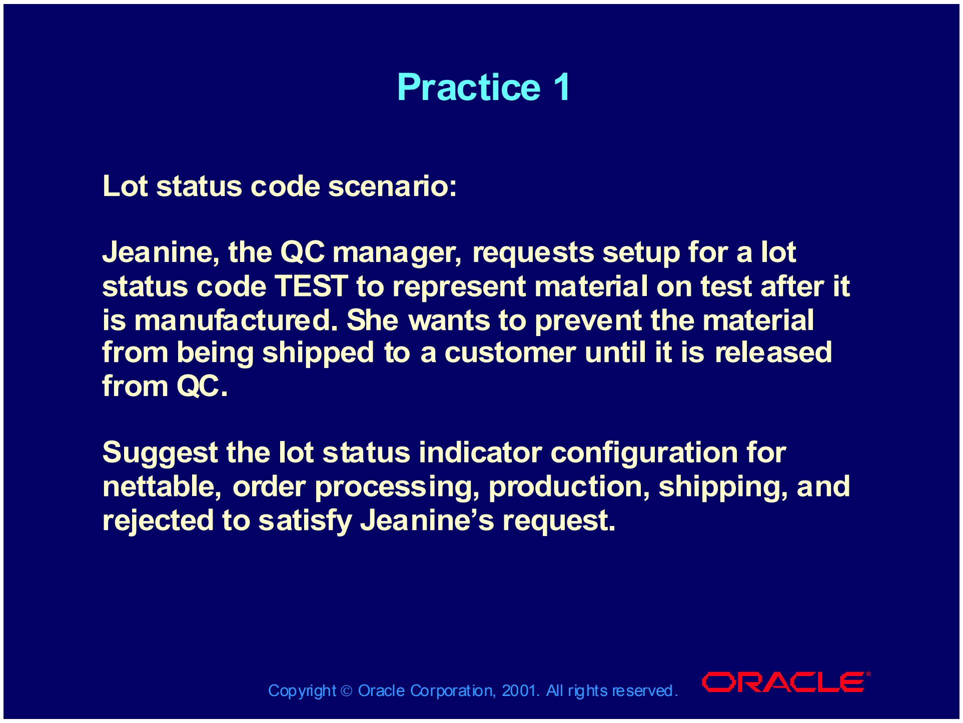
True or false question:
If a lot status code is defined with the Order processing field set to Yes and the Rejected field set to Yes, the material is still available for allocation to sales orders, but not available for shipping.

True or false?

Answer:

False.
The rejected indicator overrides all other indicators within the lot status definition; therefore, this lot status prevents allocation of a lot to a sales order even with the Order Processing field set to Yes.

Practice 1



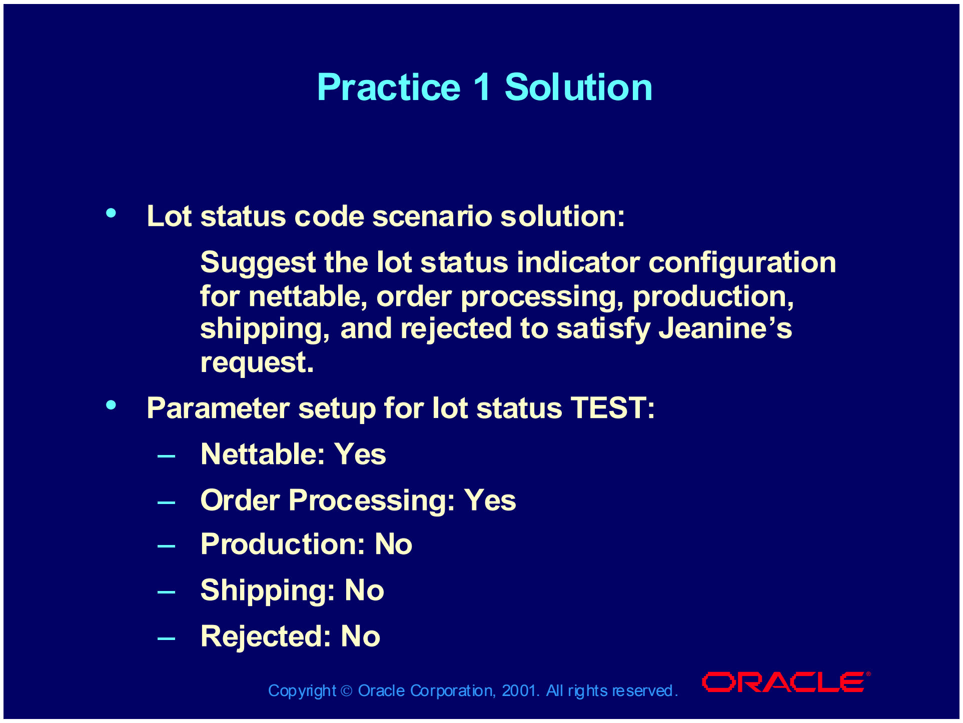
Practice 1

Lot status code scenario:

Jeanine, the QC manager, requests setup for a lot status code TEST to represent material on test after it is manufactured. She wants to prevent the material from being shipped to a customer until it is released from QC.

Suggest the lot status indicator configuration for nettable, order processing, production, shipping, and rejected to satisfy Jeanine’s request.

Practice 1 Solution

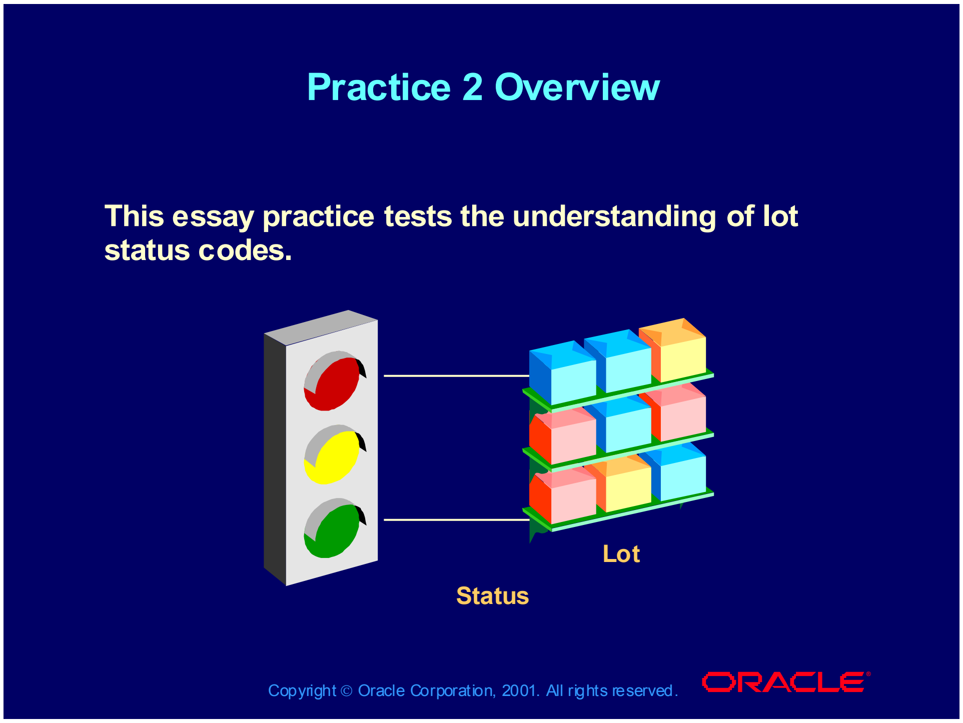


Practice 1 Solution

- Lot status code scenario solution:

  Suggest the lot status indicator configuration for nettable, order processing, production, shipping, and rejected to satisfy Jeanine's request.
- Parameter setup for lot status TEST:
  - Nettable: Yes
  - Order Processing: Yes
  - Production: No
  - Shipping: No
  - Rejected: No

Practice 2 Overview



Practice 2 Overview

This essay practice tests the understanding of lot status codes.

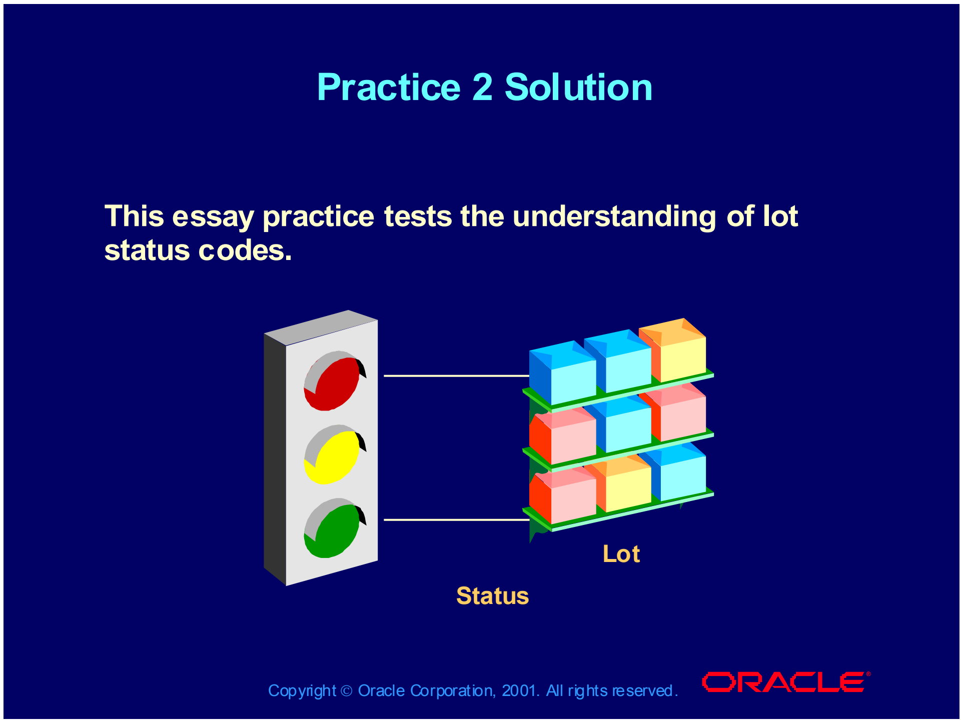
Mom’s Cookie Company Scenario: Part 1

At Mom’s Cookie Company, incoming rail cars of flour are inspected before they are received into inventory. Upon confirmation of the load, the flour is piped into a hold silo for storage. Each rail car is received into OPM as a single lot by warehouse personnel. Under current practices, everyone “just knows” that the flour in the hold silo is not available for production.

At the time of receipt, a sample is taken from the rail car for QC testing. The flour is not to be consumed by production until a QC release is given.

How would you recommend that the warehouse receiving and QC releasing activities be streamlined to provide better control of the hold and release events?

Practice 2 Solution



Practice 2 Solution

This essay practice tests the understanding of lot status codes.

Lot

Status

Mom’s Cookie Company Scenario: Part 1

At Mom’s Cookie Company, incoming rail cars of flour are inspected before they are received into inventory. Upon confirmation of the load, the flour is piped into a hold silo for storage. Each rail car is received into OPM as a single lot by warehouse personnel. Under current practices, everyone “just knows” that the flour in the hold silo is not available for production.

At the time of receipt, a sample is taken from the rail car for QC testing. The flour is not to be consumed by production until a QC release is given.

How would you recommend that the warehouse receiving and QC releasing activities be streamlined to provide better control of the hold and release events?

Mom’s Cookie Company Scenario: Part 1 Solution

Upon receipt, the flour should be automatically placed on hold through a default lot status. The hold lot status should be defined to prevent it from being consumed for production. The lot is visible in OPM with the hold lot status.

The QC department should be responsible for changing the lot status from hold to released so the lot can be used in production. The lot is visible in OPM with the released lot status.

Customer and Vendor Specifications

Customer and Vendor Specifications

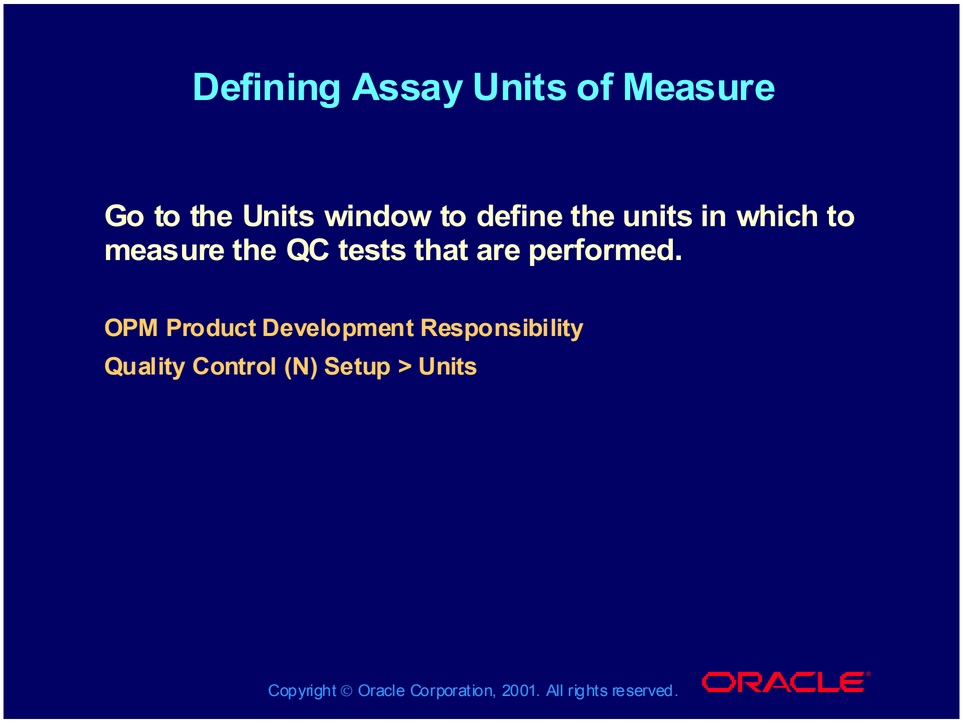
You can set up specifications for customer products or supplier material.

Customer
Supplier

Customer and Vendor Specifications

You can define specifications for each item or lot in your inventory for each customer or supplier that you sell to or buy from or for each formula or production batch that you produce. You can use OPM Quality Management to compare the specifications that you define with actual test results that you enter.

Defining Assay Units of Measure



Defining Assay Units of Measure

Go to the Units window to define the units in which to measure the QC tests that are performed.

OPM Product Development Responsibility

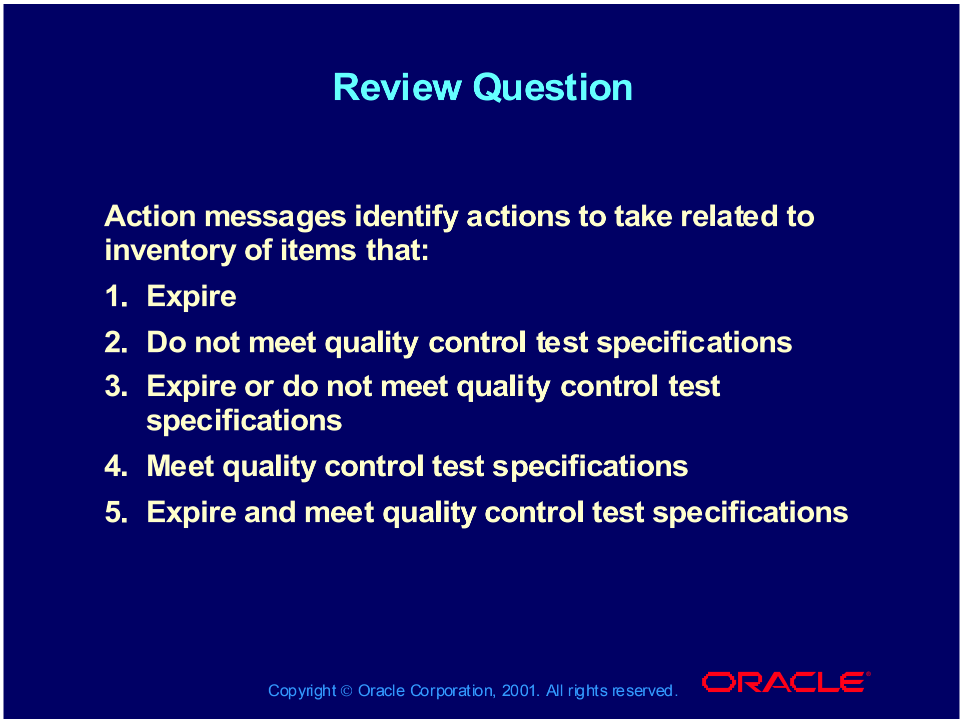
Quality Control (N) Setup > Units

(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User’s Guide > Test Specifications Setup > Setting Up QC Assay Units of Measure

... > Setting Up QC Assay Units of Measure Procedure

... > Units Field Reference

Review Question

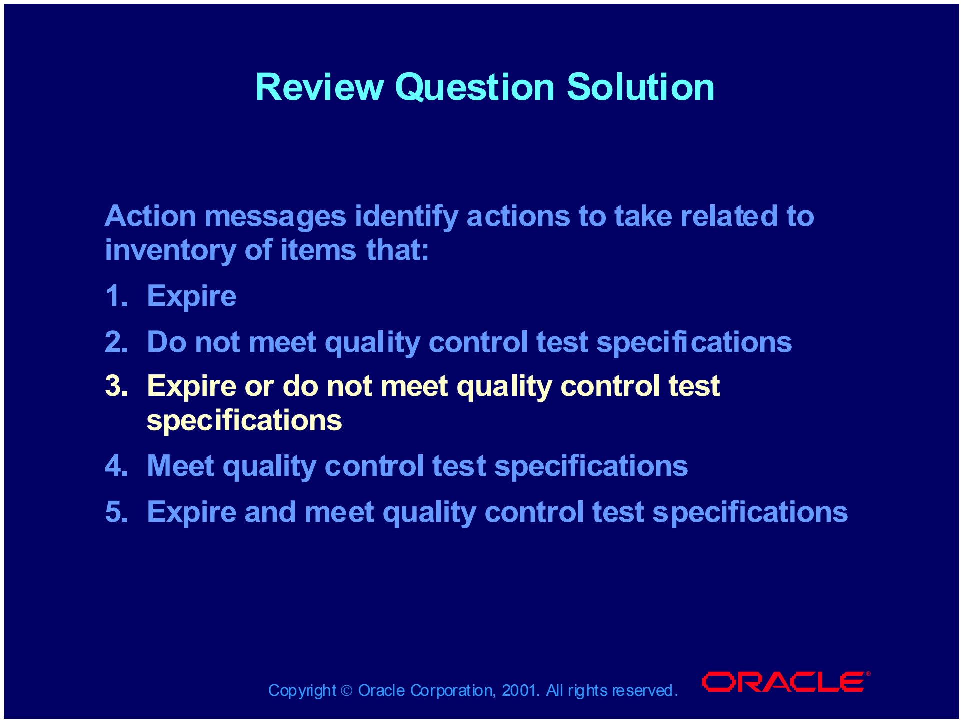


Review Question

Action messages identify actions to take related to inventory of items that:

1. Expire
2. Do not meet quality control test specifications
3. Expire or do not meet quality control test specifications
4. Meet quality control test specifications
5. Expire and meet quality control test specifications

Review Question Solution

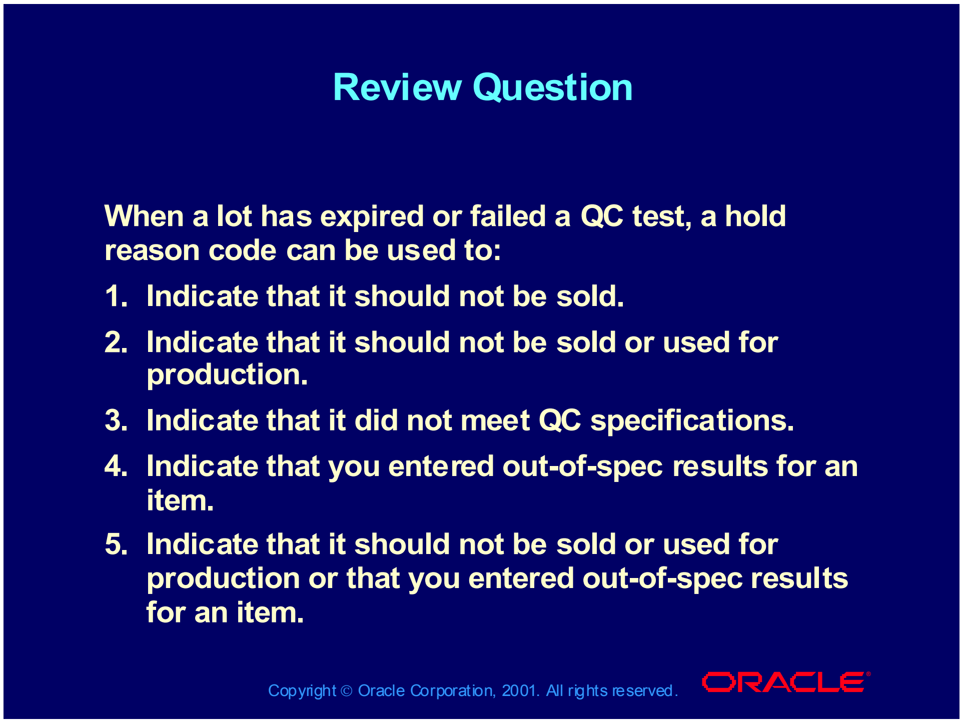


Review Question Solution

Action messages identify actions to take related to inventory of items that:

1. Expire
2. Do not meet quality control test specifications
3. Expire or do not meet quality control test specifications
4. Meet quality control test specifications
5. Expire and meet quality control test specifications

Review Question

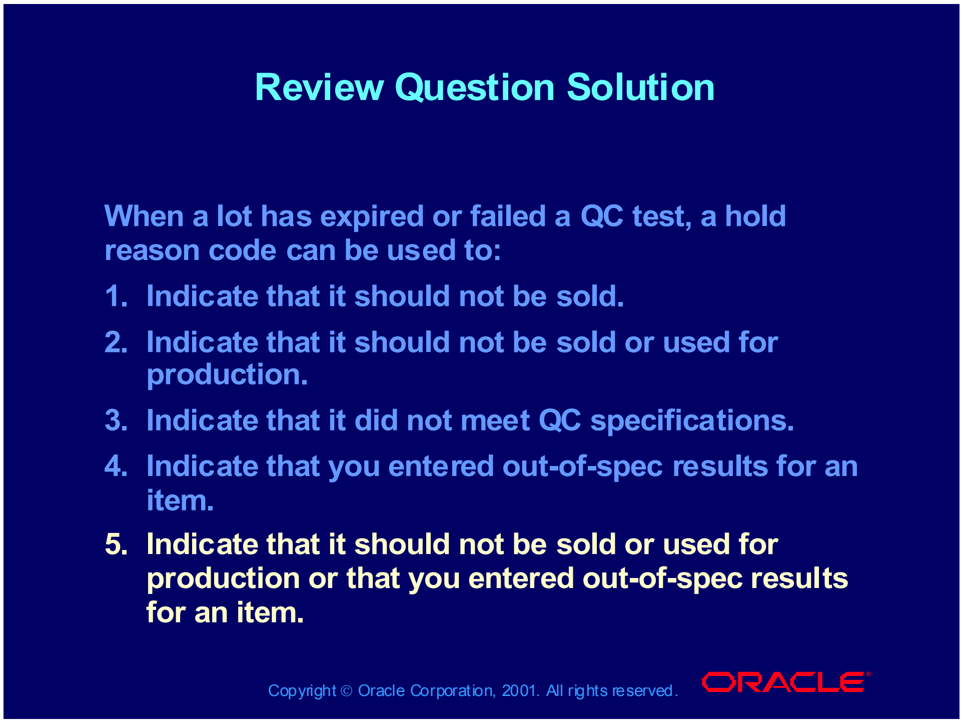


Review Question

When a lot has expired or failed a QC test, a hold reason code can be used to:

1. Indicate that it should not be sold.
2. Indicate that it should not be sold or used for production.
3. Indicate that it did not meet QC specifications.
4. Indicate that you entered out-of-spec results for an item.
5. Indicate that it should not be sold or used for production or that you entered out-of-spec results for an item.

Review Question Solution

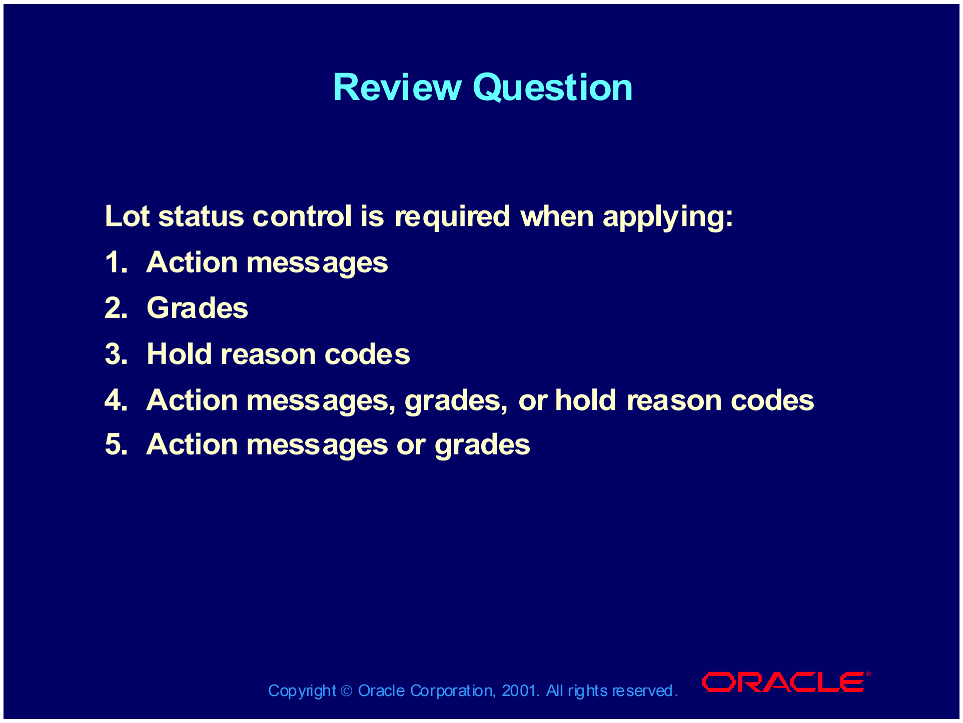


Review Question Solution

When a lot has expired or failed a QC test, a hold reason code can be used to:

1. Indicate that it should not be sold.
2. Indicate that it should not be sold or used for production.
3. Indicate that it did not meet QC specifications.
4. Indicate that you entered out-of-spec results for an item.
5. Indicate that it should not be sold or used for production or that you entered out-of-spec results for an item.

Review Question

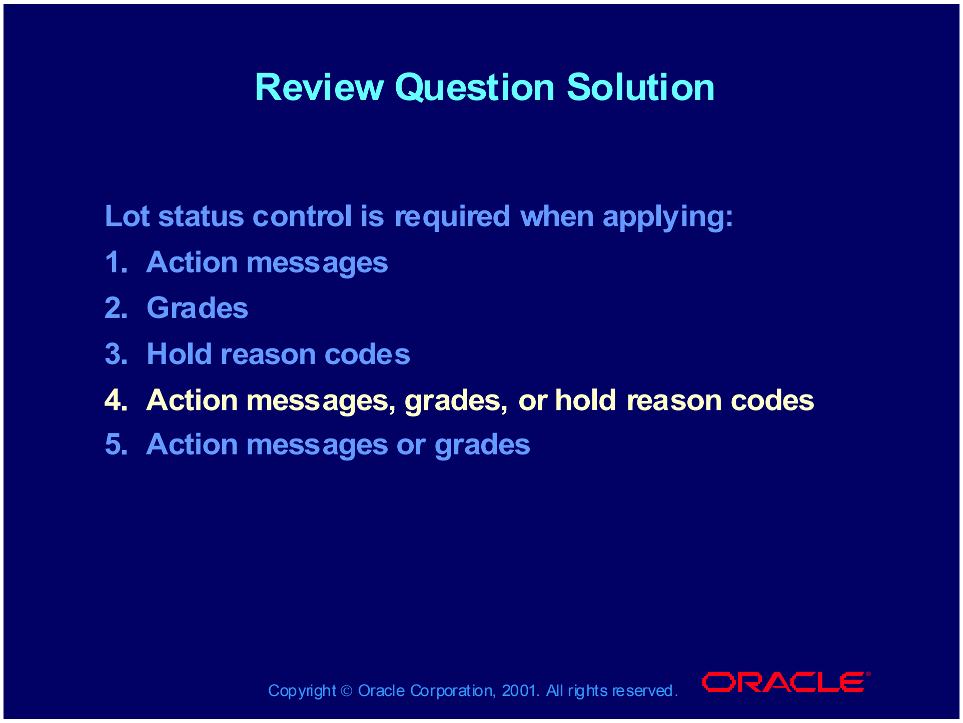


Review Question

Lot status control is required when applying:

1. Action messages
2. Grades
3. Hold reason codes
4. Action messages, grades, or hold reason codes
5. Action messages or grades

Review Question Solution

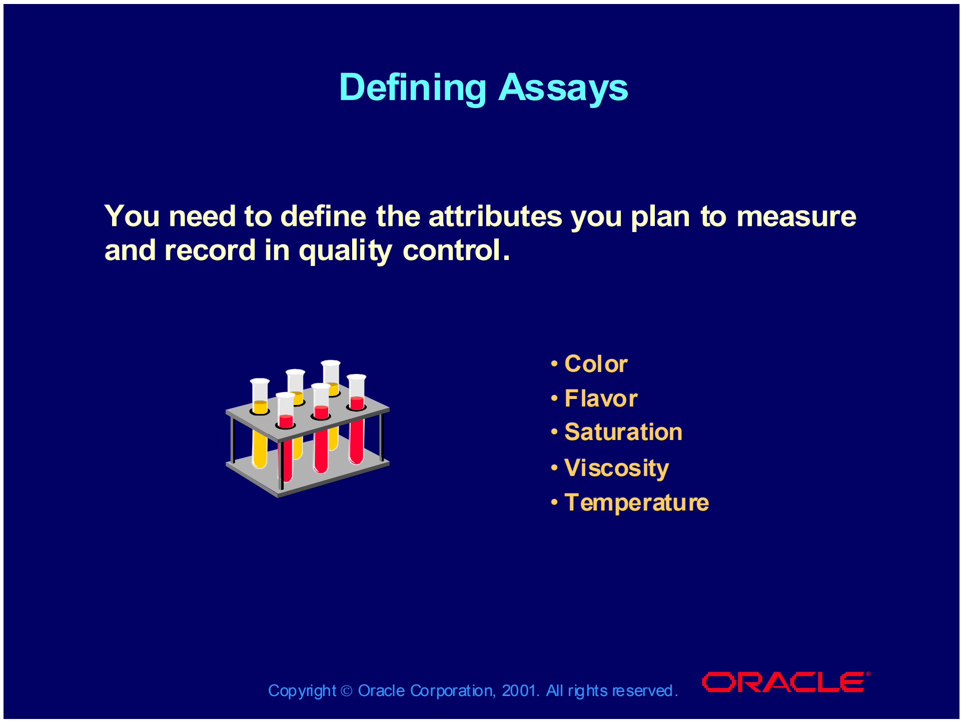


Review Question Solution

Lot status control is required when applying:

1. Action messages
2. Grades
3. Hold reason codes
4. Action messages, grades, or hold reason codes
5. Action messages or grades

Defining Assays

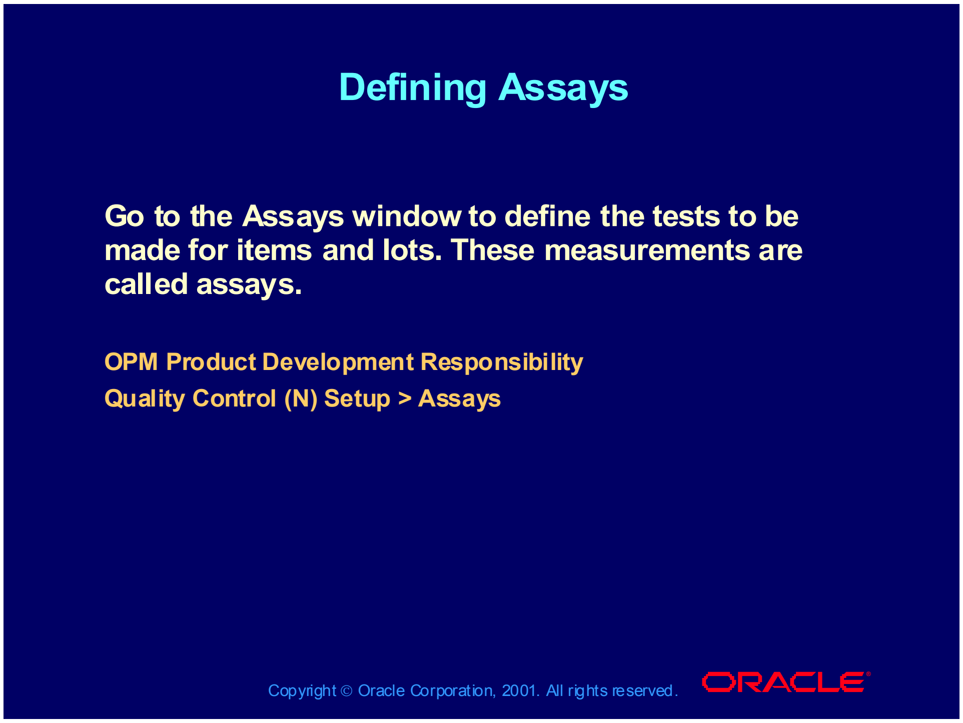


Defining Assays

You need to define the attributes you plan to measure and record in quality control.

- Color
- Flavor
- Saturation
- Viscosity
- Temperature

Defining Assays



Defining Assays

Go to the Assays window to define the tests to be made for items and lots. These measurements are called assays.

OPM Product Development Responsibility
Quality Control (N) Setup > Assays

(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User's Guide > Test Specifications Setup > Setting Up Assay Types

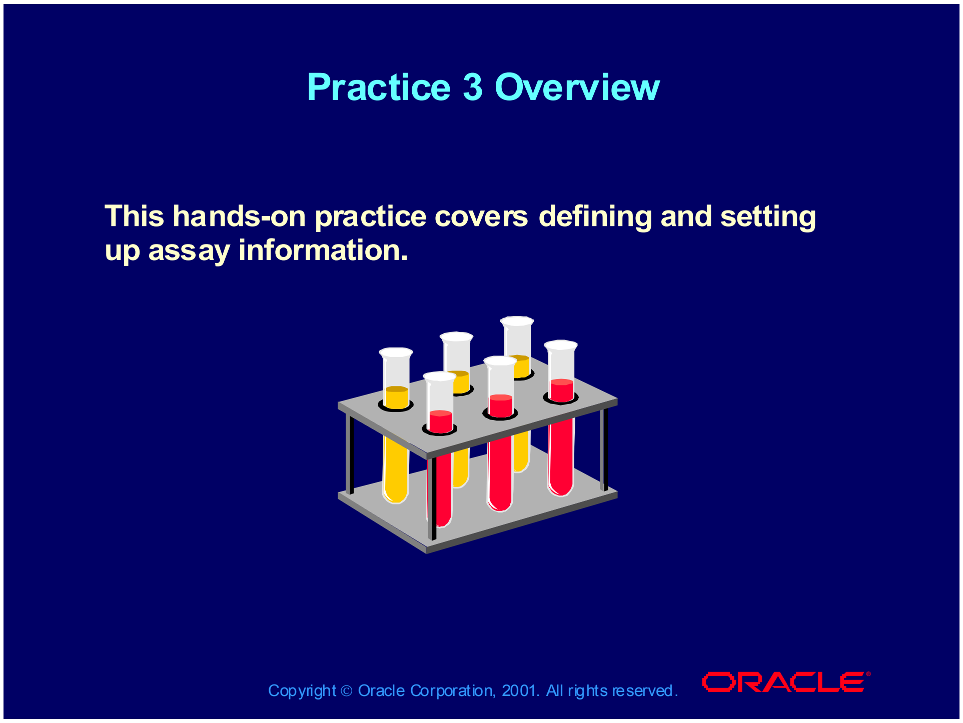
... > Setting Up Assay Types Procedure

... > Assays Window Field Reference

Note that you are setting the range values for all applications of this assay, not just for a specific test or item. Make sure that your values reflect the entire range. For example, if you were creating an assay for water temperature in degrees Fahrenheit, your minimum and maximum would look like this:

- Min range = 32
- Max range = 212

Practice 3 Overview



Practice 3 Overview

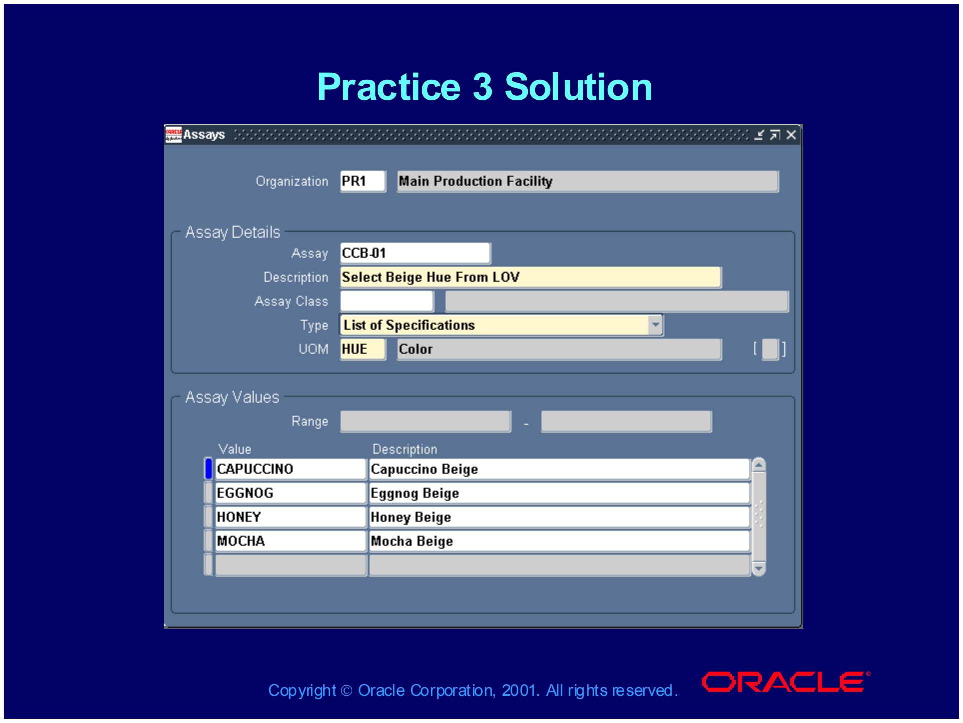
This hands-on practice covers defining and setting up assay information.

Practice 3

Setting Up a List of Specification Assay

In your assigned organization, the ice cream for the vanillas production line needs to be tagged by lot based on hue. Set up an assay CCB-*XX*, where *XX* is your terminal number, that creates five hue values for the beige production line.

Practice 3 Solution



Practice 3 Solution

Organization: PR1 Main Production Facility

Assay Details

Assay: CCB-01

Description: Select Beige Hue From LOV

Assay Class:

Type: List of Specifications

UOM: HUE Color

Assay Values

Range: -

Value	Description
CAPUCCINO	Capuccino Beige
EGGNOG	Eggnog Beige
HONEY	Honey Beige
MOCHA	Mocha Beige

Setting Up a List of Specification Assay

In your assigned organization, the ice cream for the vanillas production line needs to be tagged by lot based on hue. Set up an assay CCB-*XX*, where *XX* is your terminal number, that creates five hue values for the beige production line.

Practice 3 Solution

1. Open the Assays window:

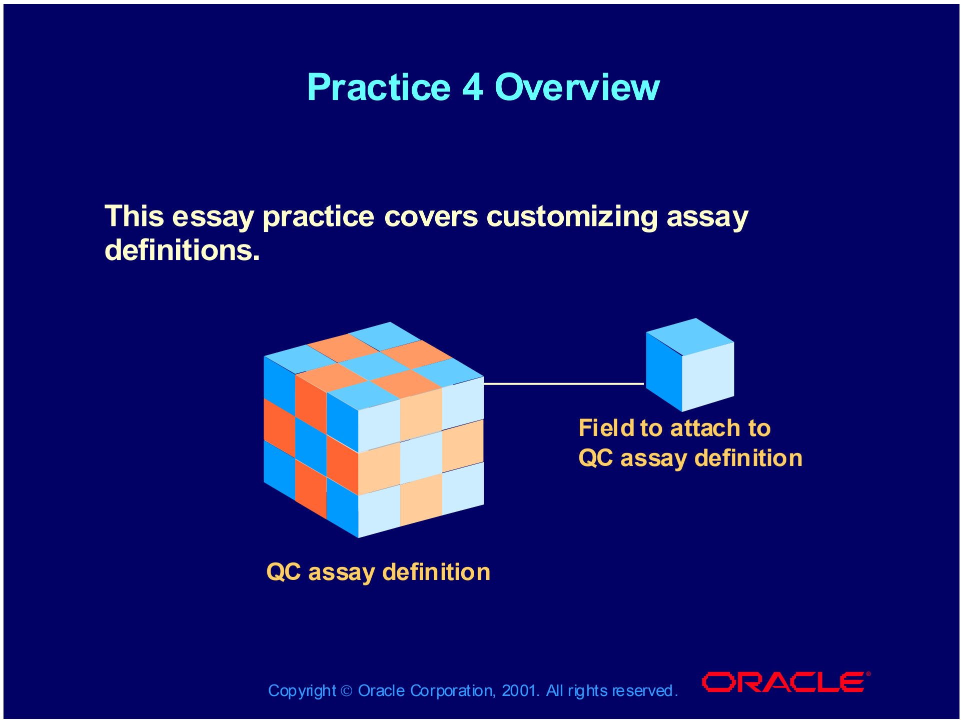
   (N) OPM Product Development > Quality Control > Setup > Assays

2. In the Assay Details region, enter the following information using your unique identifier:
   - Organization: Accept the default value
   - Assay: `CCB-`*XX*
   - Description: Enter an appropriate description.
   - Type: Select List of Specifications from the drop-down list of values.
   - UOM: Select HUE from the pop-up list of values. Click in the flexfield box, and enter a description flexfield in the Assay Information pop-up window.

3. In the Assay Values region, enter values and descriptions for several shades of beige.

4. Save your work.

Practice 4 Overview



Practice 4 Overview

This essay practice covers customizing assay definitions.

Field to attach to QC assay definition

QC assay definition

Practice 4

Mom’s Cookie Company Scenario: Part 2

Based on the scenario discussion in practice 2, incoming rail cars of flour at Mom’s Cookie Company are automatically placed on hold by way of a default lot status. How would this setup look in the OPM?

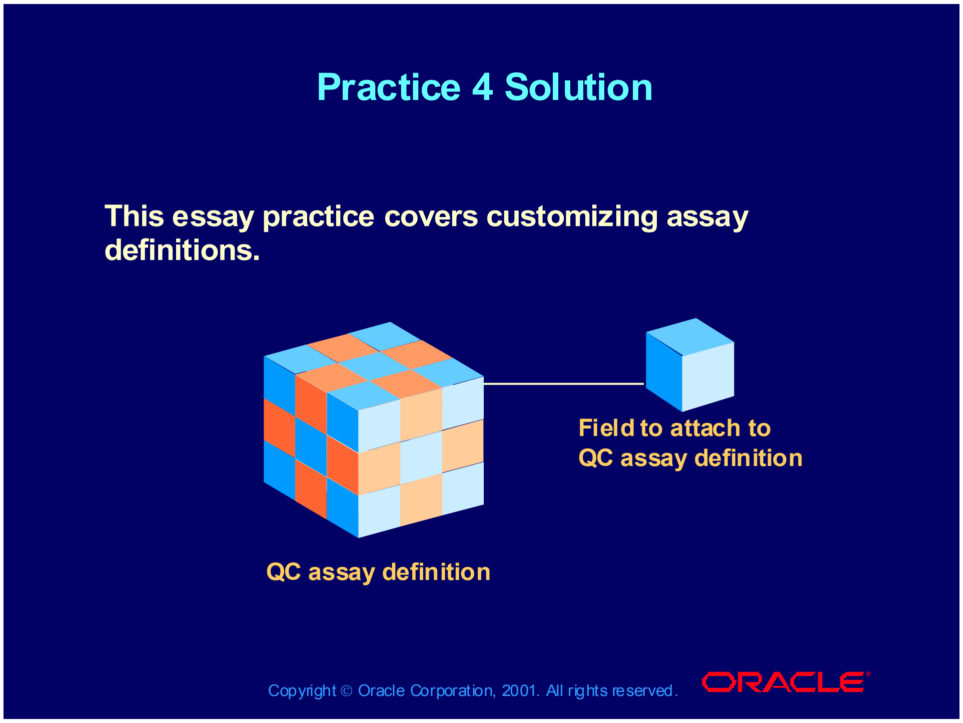
What must occur before the flour is available for production allocation in OPM?

QC Assay Definitions Scenario

A specialty chemical manufacturer is defining assay codes for use in production. The QC lab manager would like some way to attach a field to the QC assay definition that would store the company’s general ISO 9000 procedure number as a reference for performing the assay.

What is your recommendation on how this could be accomplished without customization to the QC Assay window?

Practice 4 Solution



Practice 4 Solution

This essay practice covers customizing assay definitions.

Field to attach to QC assay definition

QC assay definition

Practice 4 Solutions

Mom’s Cookie Company Scenario: Part 2

Based on the scenario discussion in practice 2, incoming rail cars of flour at Mom’s Cookie Company are automatically placed on hold by way of a default lot status. How would this setup look in OPM?

What must occur before the flour is available for production allocation in OPM?

Solution

Flour Item Setup

Lot Control: Yes

Status Control: Yes

Lot Status Production flag: No

Action to transfer the lot from hold status to good status:

Quality control must perform a status change to transfer the lot from hold status to good status, where good is defined with the Production flag set to Yes.

QC Assay Definitions Scenario

A specialty chemical manufacturer is defining assay codes for use in production. The QC lab manager would like some way to attach a field to the QC assay definition that would store the company’s general ISO 9000 procedure number as a reference for performing the assay.

What is your recommendation on how this could be accomplished without customization to the QC Assay window?

Solution

Create a user-defined field to capture the ISO 9000 procedure number in OPM systems setup.

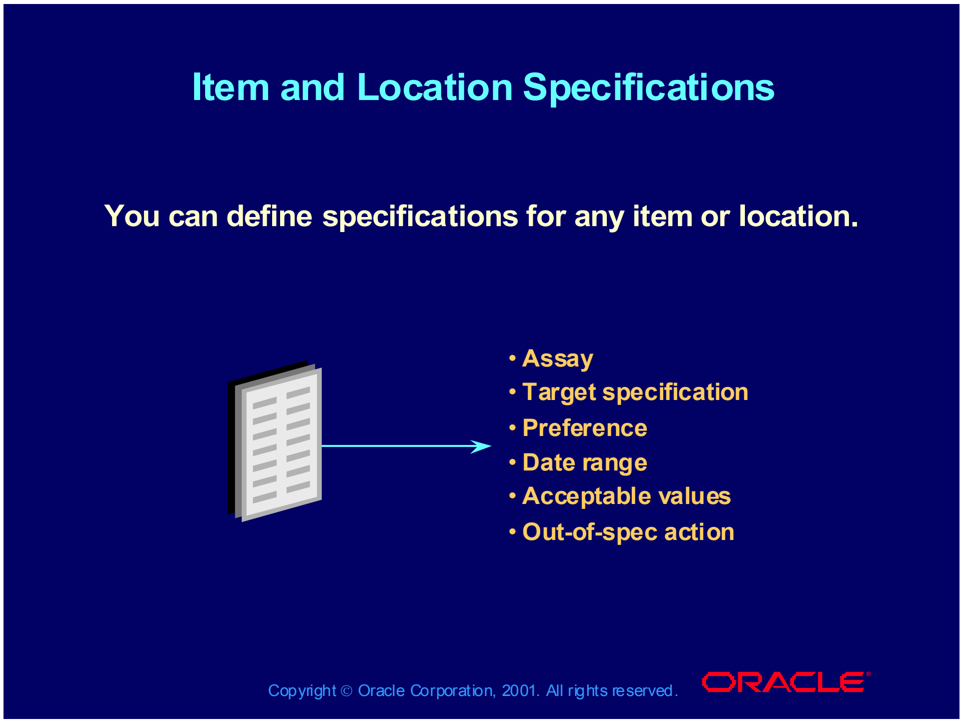
Table: qc_assay typ

Field Name: user_class1

Define a field name: ISO#:

Validation Indicator: No

Item and Location Specifications

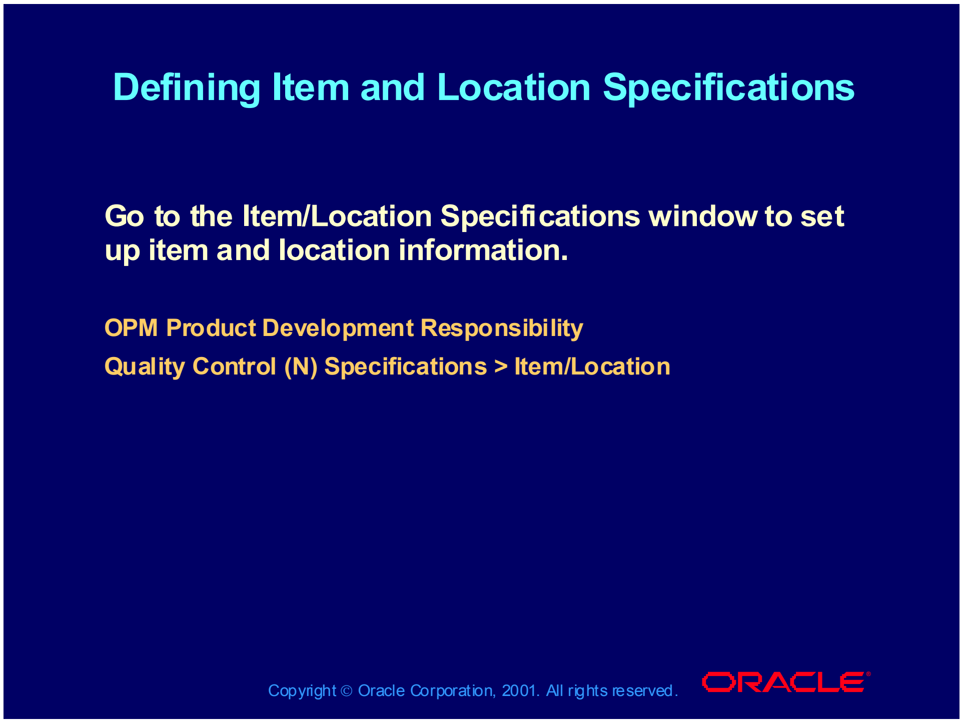


Item and Location Specifications

You can define specifications for any item or location.

- Assay
- Target specification
- Preference
- Date range
- Acceptable values
- Out-of-spec action

Defining Item and Location Specifications



Defining Item and Location Specifications

Go to the Item/Location Specifications window to set up item and location information.

OPM Product Development Responsibility

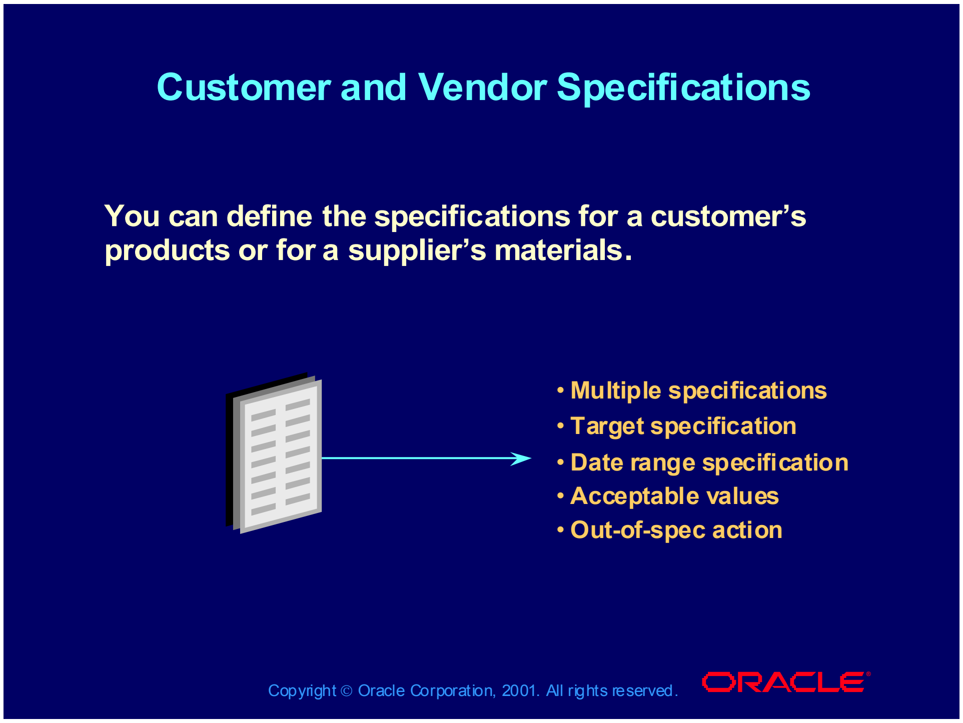
Quality Control (N) Specifications > Item/Location

(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User’s Guide > Test Specifications Setup > Setting Up QC Item/Location Specifications

... > Setting Up QC Item/Location Specifications Procedure

... > Item/Location Specifications Field Reference

Customer and Vendor Specifications

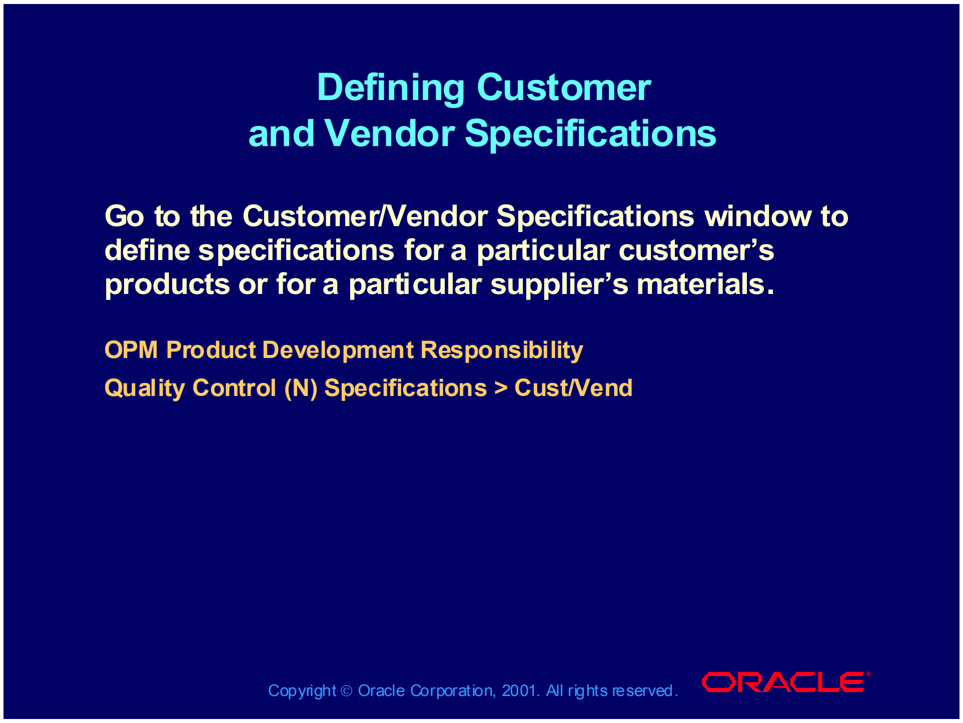


Customer and Vendor Specifications

You can define the specifications for a customer's products or for a supplier's materials.

- Multiple specifications
- Target specification
- Date range specification
- Acceptable values
- Out-of-spec action

Defining Customer and Vendor Specifications



Defining Customer and Vendor Specifications

Go to the Customer/Vendor Specifications window to define specifications for a particular customer's products or for a particular supplier's materials.

OPM Product Development Responsibility

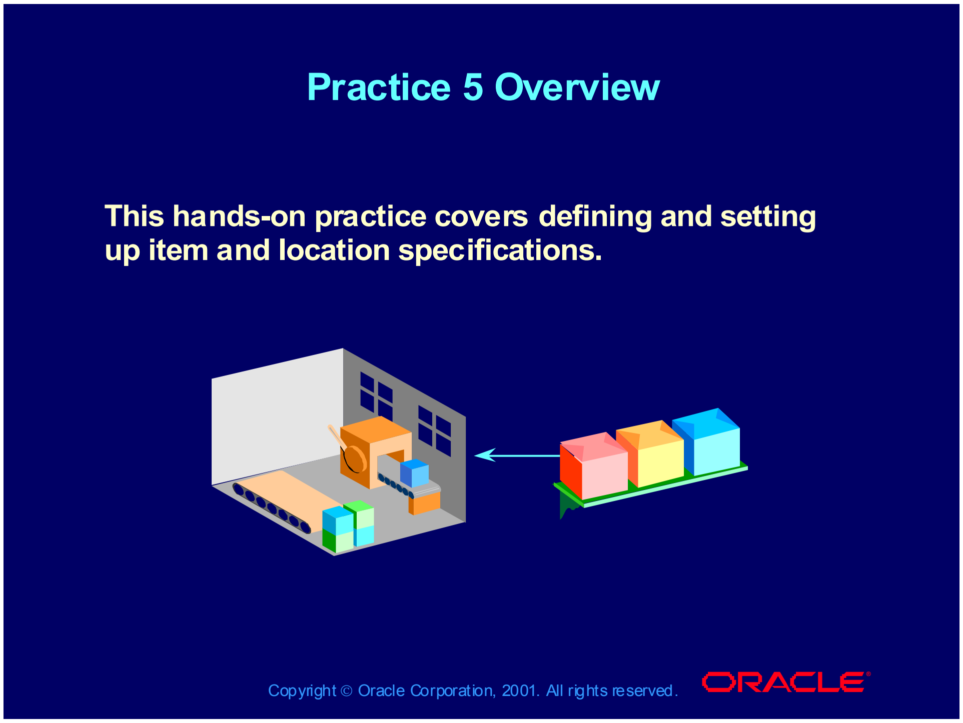
Quality Control (N) Specifications > Cust/Vend

(Help) Oracle Manufacturing Applications >Oracle Process Applications > OPM Product Development > OPM Quality Management User's Guide > Test Specifications Setup > Setting Up Customer/Vendor Specifications

... > Setting Up Customer/Vendor Specifications Procedure

... > Customer/Vendor Specifications Field Reference

Practice 5 Overview



Practice 5 Overview

This hands-on practice covers defining and setting up item and location specifications.

Practice 5

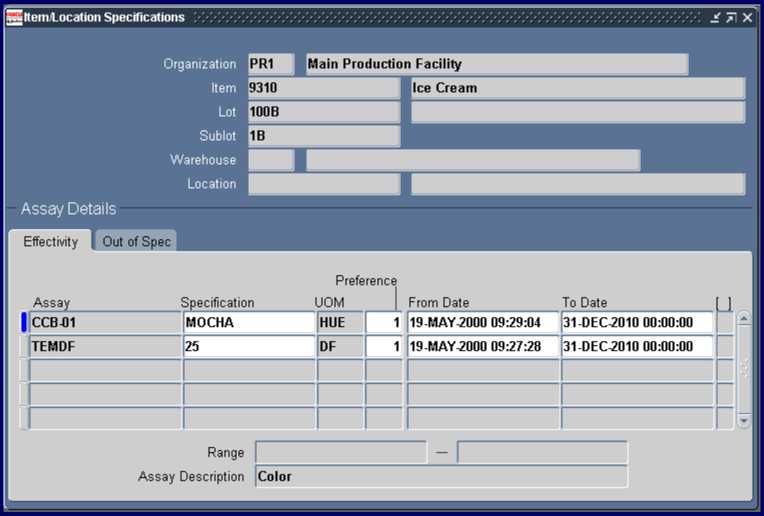
Setting Up Item/Location Specifications

In the process of setting up ice cream production, you need to set up the item specifications for your ice cream (item 9310) with two global assays: one that discards if the temperature is out of specification, and one of your CCB-*XX* assay specifications that retests if out of specification.

You also need to set up your heavy cream (item 9802) item specifications to reject if out of specification.

Practice 5 Solution

Practice 5 Solution



Organization	PR1	Main Production Facility
Item	9310	Ice Cream
Lot	100B	
Sublot	1B	
Warehouse		
Location		

Assay	Specification	UOM	Preference	From Date	To Date
CCB-01	MOCHA	HUE	1	19-MAY-2000 09:29:04	31-DEC-2010 00:00:00
TEMDF	25	DF	1	19-MAY-2000 09:27:28	31-DEC-2010 00:00:00

Range —

Assay Description: Color

Practice 5 Solution

Setting Up Item/Location Specifications

1. Open the Item/Location Specifications window:

   (N) OPM Product Development > Quality Control > Specifications > Item/Location

2. Enter the following information using your unique identifier:

   - Item Code: `9310`
   - Lot: `100 B`
   - Sublot: `1B`

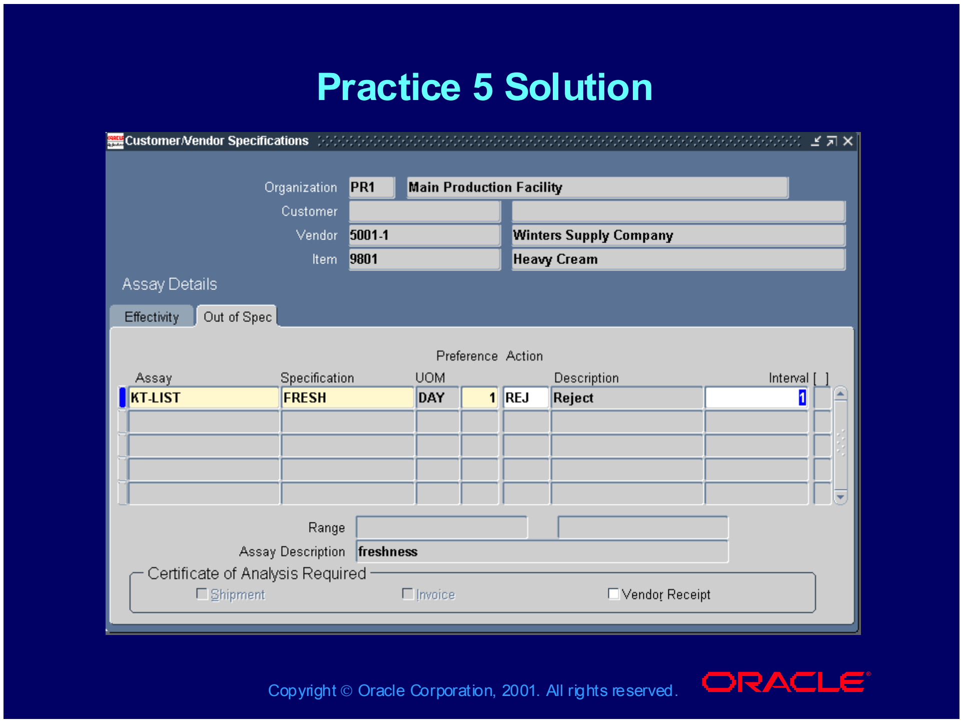
   Note: If you have a question about lot and sublot control, check the item setup for ice cream in the Items window.

3. In the Assay Details region, enter the following information:

   - Global assay: Select a temperature assay from the list of values to test temperature, and set up to discard if out of specification.
   - CCB-*XX* assay: Select one of your hue specifications, and set up to retest if out of specification.

4. Save your work.

Practice 5 Solution



Practice 5 Solution

Organization	PR1	Main Production Facility
Customer		
Vendor	5001-1	Winters Supply Company
Item	9801	Heavy Cream

Assay Details

Assay	Specification	UOM	Preference	Action	Description	Interval
KT-LIST	FRESH	DAY	1	REJ	Reject	1

Range

Assay Description: freshness

Certificate of Analysis Required

☐ Shipment ☐ Invoice ☐ Vendor Receipt

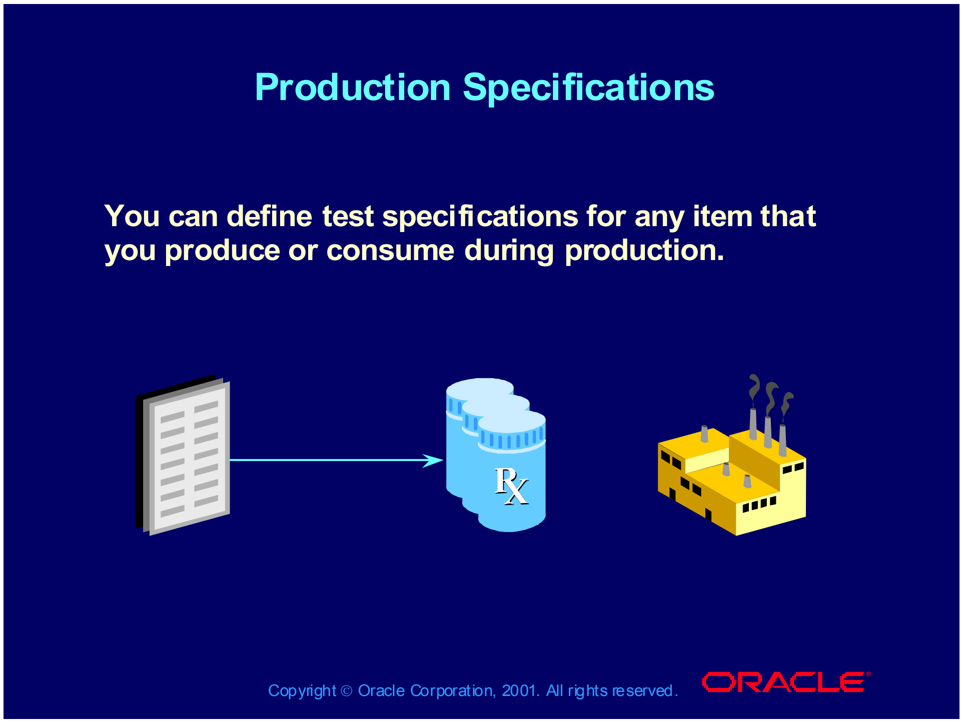
Setting Up Customer/Vendor Specifications

1. Open the Customer/Vendor Specification window:

   (N) OPM Product Development > Quality Control > Specifications > Cust/Vend
2. Enter the following information using your unique identifier:
   - Vendor: `Winters Supply Company`
   - Item: `9801`
3. In the Assay Details region, enter the following information:

   Global assay: Select KT-LIST assay from the list of values to test freshness, and set up to reject if out of specification.
4. Save your work.

Production Specifications



Production Specifications

You can define test specifications for any item that you produce or consume during production.

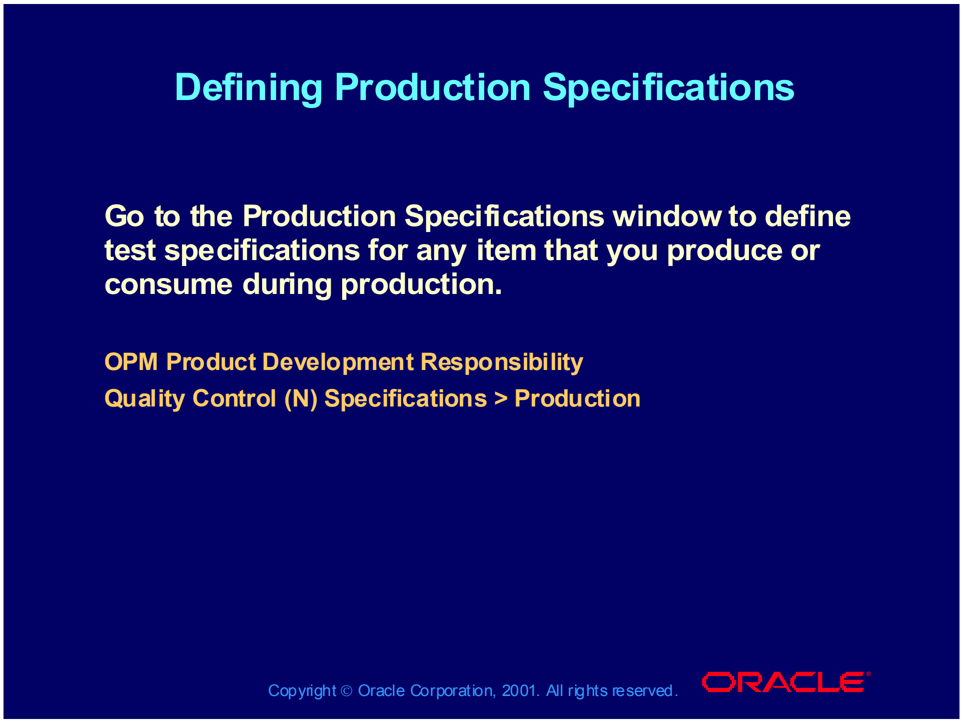
Production Specifications

You can establish the specifications for any combination of production batch, formula, routing, or operation. You can establish multiple specifications for an item.

For each assay, you can establish a target specification (the most desired result) as well as a preference for assay with respect to all other specifications defined for the item. You can specify the date range within which the specification is effective.

You can define minimum and maximum acceptable values for the assay, as well as out-of-spec actions to be performed for items that fail assays (or expire) for range-validated assays.

Defining Production Specifications



Defining Production Specifications

Go to the Production Specifications window to define test specifications for any item that you produce or consume during production.

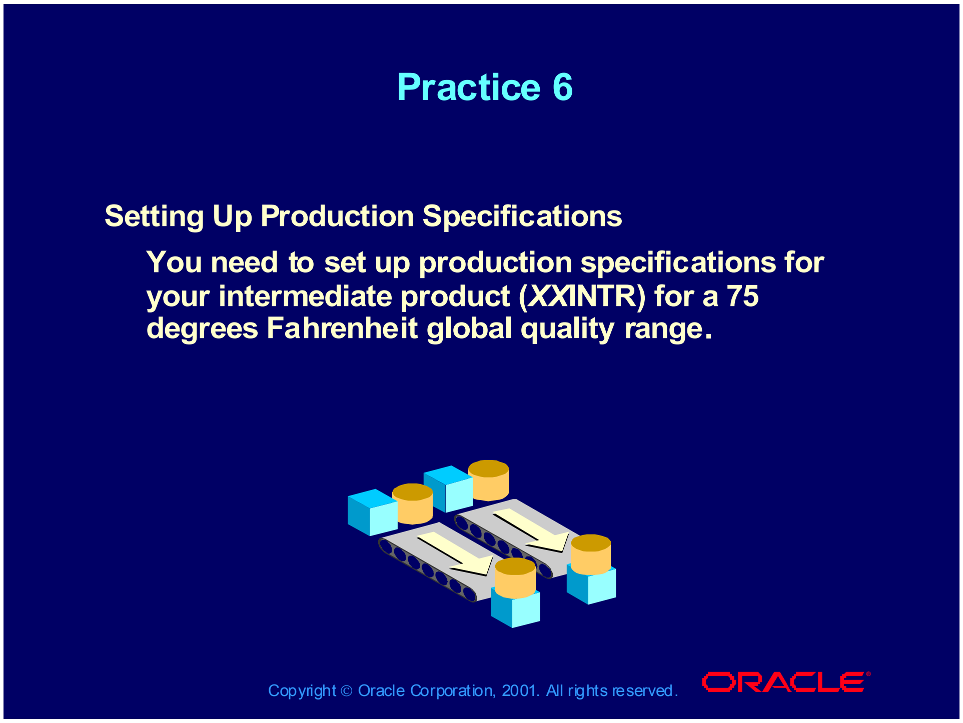
OPM Product Development Responsibility
Quality Control (N) Specifications > Production

(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User’s Guide > Test Specifications Setup > Setting Up Production Specifications

... > Setting Up Production Specifications Procedure

... > Production Specifications Field Reference

Practice 6

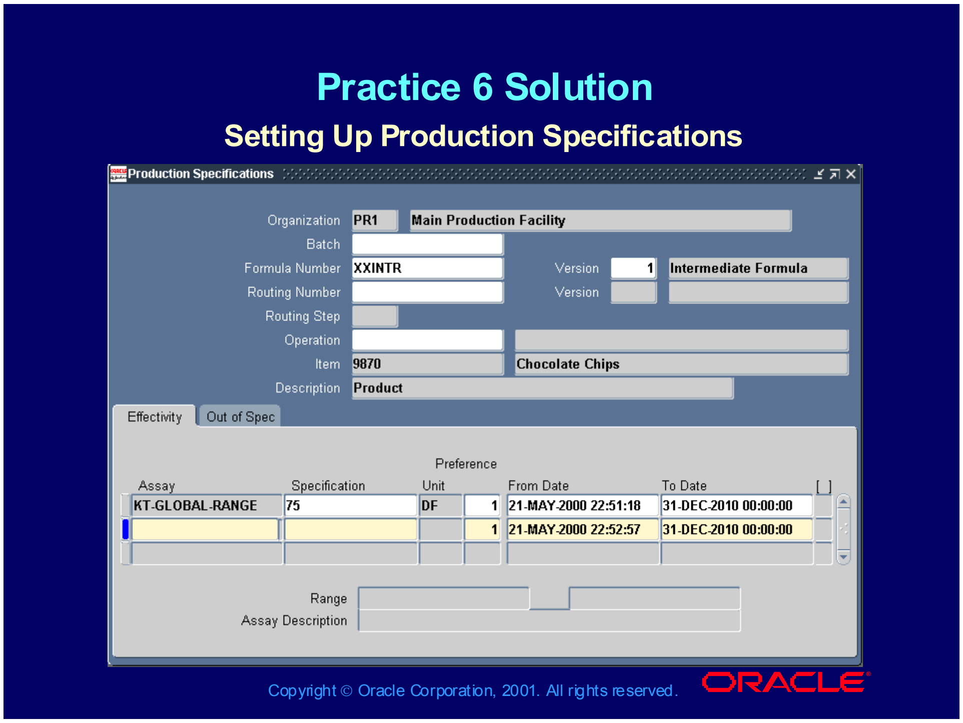


Practice 6

Setting Up Production Specifications

You need to set up production specifications for your intermediate product (*XX*INTR) for a 75 degrees Fahrenheit global quality range.

Practice 6 Solution



Practice 6 Solution

Setting Up Production Specifications

Organization: PR1 Main Production Facility
Batch:
Formula Number: XXINTR Version: 1 Intermediate Formula
Routing Number: Version:
Routing Step:
Operation:
Item: 9870 Chocolate Chips
Description: Product

Assay	Specification	Unit	Preference	From Date	To Date
KT-GLOBAL-RANGE	75	DF	1	21-MAY-2000 22:51:18	31-DEC-2010 00:00:00
			1	21-MAY-2000 22:52:57	31-DEC-2010 00:00:00

Range:
Assay Description:

Practice 6 Solution

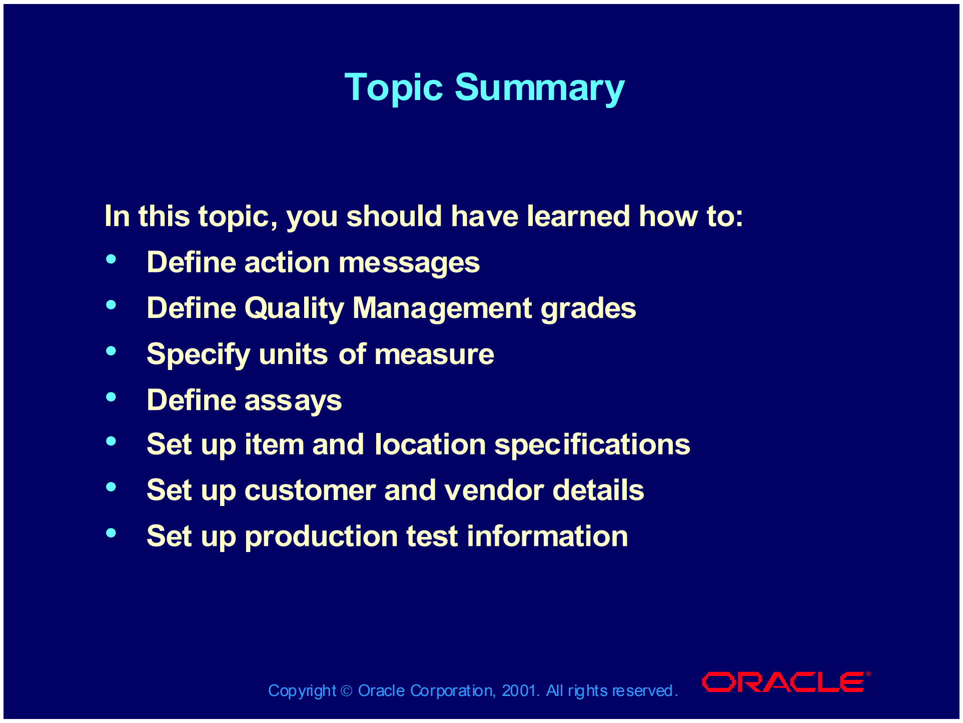
Setting Up Production Specifications

1. Open the Production Specifications window:

   (N) OPM Product Development > Quality Control > Specifications > Production

2. Enter the following information using your unique identifier:
   - Formula Number: Select *XX*INTR from the list of values.
   - Item: `9870`
3. In the Assay Details region, enter the following information:
   - Assay: Select KT-GLOBAL-RANGE from the list of values.
   - Specification: `75`
   - Dates: Accept the default or specify new range.
4. Save your work.

Topic Summary

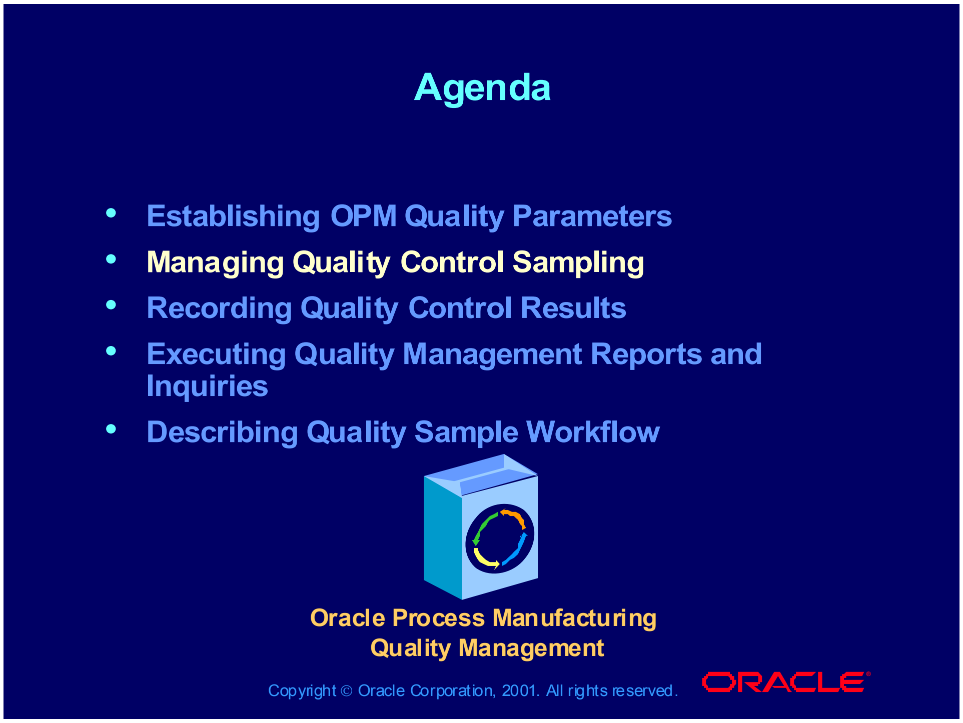


Topic Summary

In this topic, you should have learned how to:

- Define action messages
- Define Quality Management grades
- Specify units of measure
- Define assays
- Set up item and location specifications
- Set up customer and vendor details
- Set up production test information

Agenda

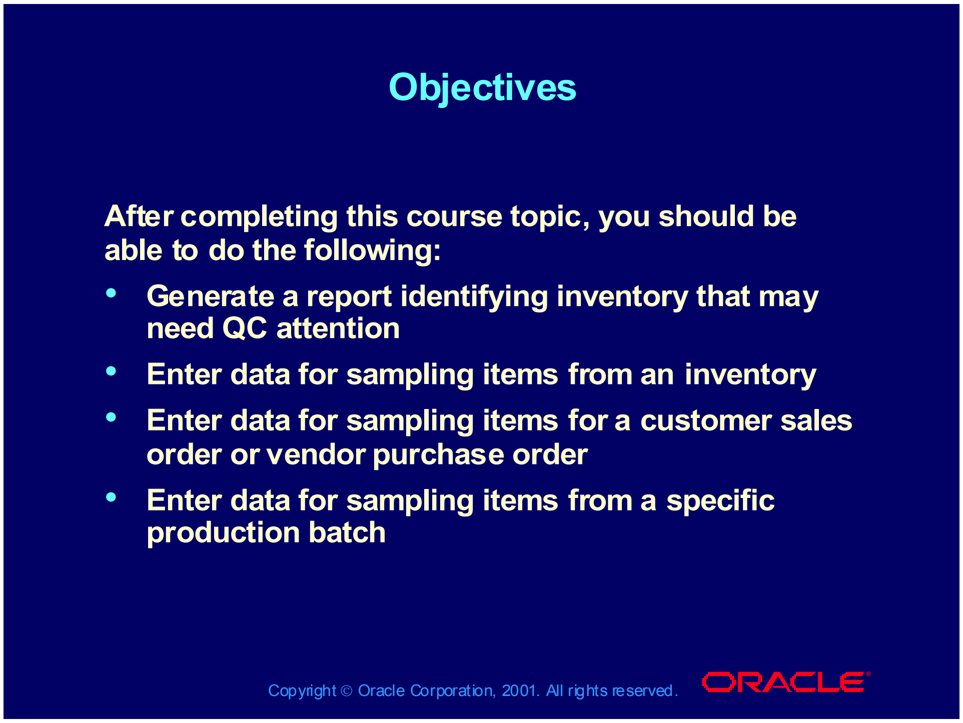


Agenda

- Establishing OPM Quality Parameters
- Managing Quality Control Sampling
- Recording Quality Control Results
- Executing Quality Management Reports and Inquiries
- Describing Quality Sample Workflow

Oracle Process Manufacturing
Quality Management

Objectives

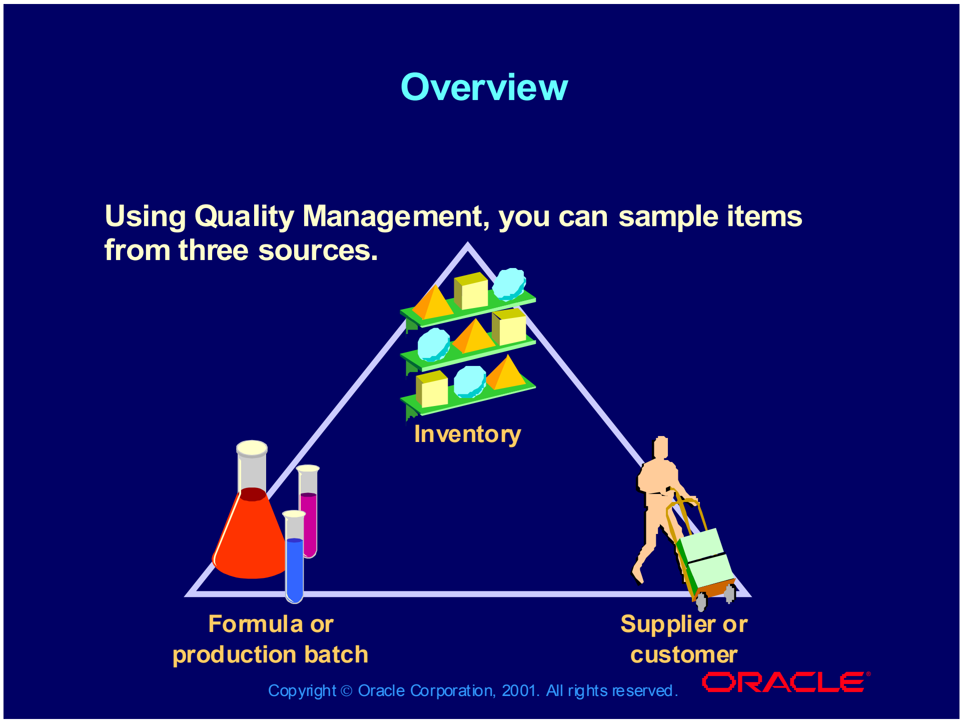


Objectives

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

- Generate a report identifying inventory that may need QC attention
- Enter data for sampling items from an inventory
- Enter data for sampling items for a customer sales order or vendor purchase order
- Enter data for sampling items from a specific production batch

Overview



Overview

Using Quality Management, you can sample items from three sources.

Inventory
Formula or production batch
Supplier or customer

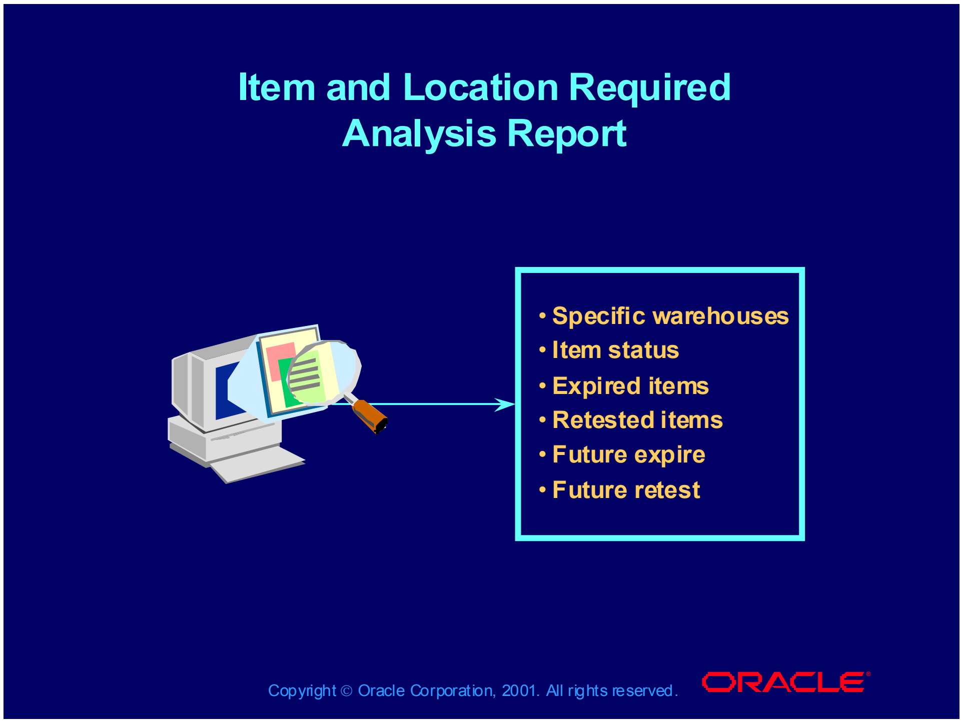
Overview

You typically perform quality control sampling from these areas:

- Inventory
- A customer or supplier
- A formula or production batch

Before you sample any of these types of materials, you may need to generate a report that specifically indicates which inventory and locations to sample.

Item and Location Required Analysis Report



Item and Location Required Analysis Report

- Specific warehouses
- Item status
- Expired items
- Retested items
- Future expire
- Future retest

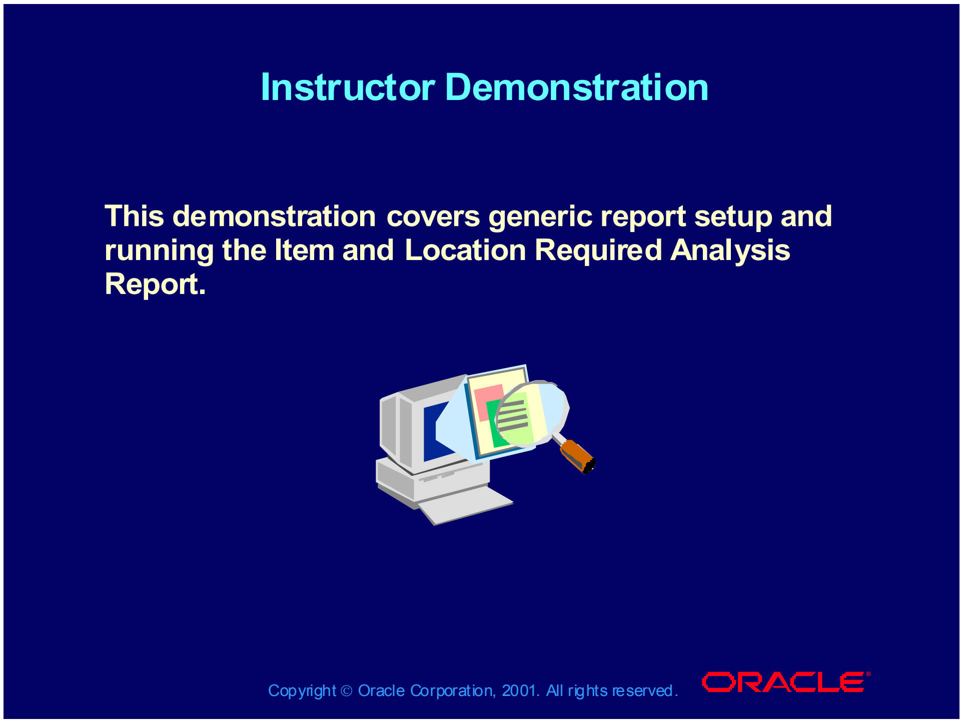
Item and Location Required Analysis Report

You can identify the inventory that may need QC attention by generating the Item and Location Required Analysis Report. The purpose of this report is to identify assays for inventory that either has expired or is expiring. In order to identify assays, there must be specifications. This report does not advise about which lots are expiring. You can set up the report to include:

- Inventory from the specific warehouses by lot status
- Inventory currently expired or for which a retest is required
- Inventory of items that will expire or that will require future retest by specifying the number of days in advance that you want the report to include

Note: Only if lots and sublots for an item have item and location specifications associated to them and available inventory do they display on the report.

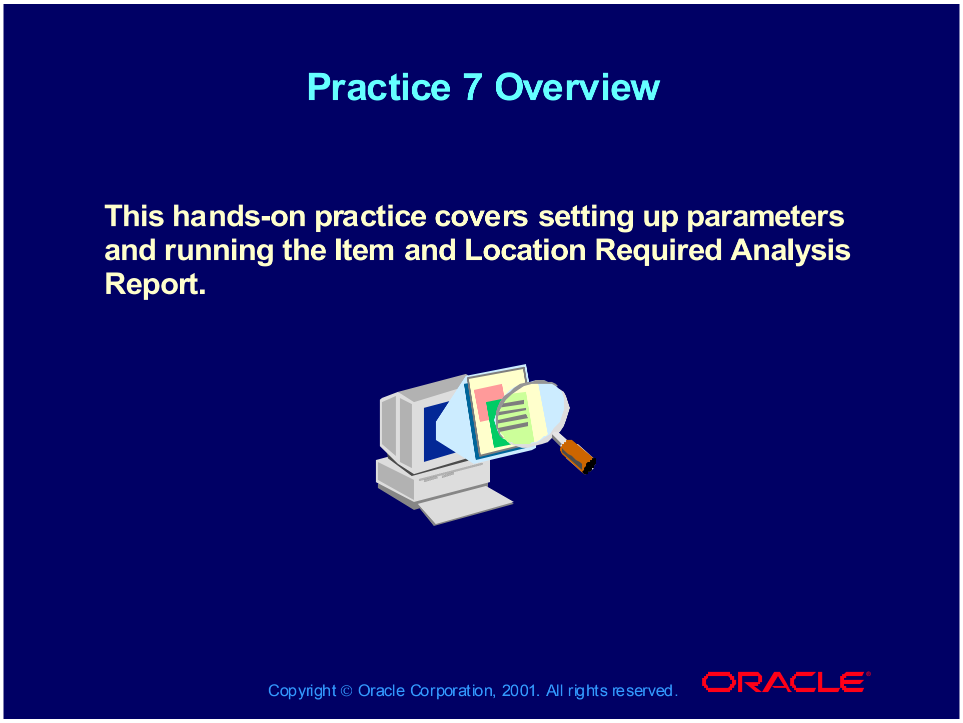
Instructor Demonstration



Instructor Demonstration

This demonstration covers generic report setup and running the Item and Location Required Analysis Report.

Practice 7 Overview



Practice 7 Overview

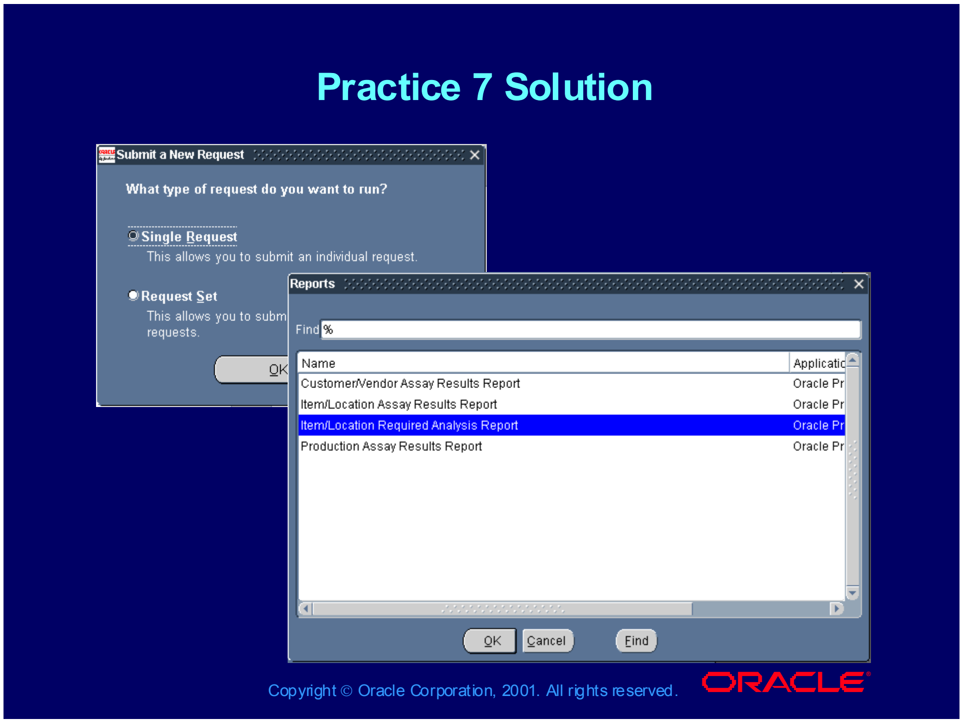
This hands-on practice covers setting up parameters and running the Item and Location Required Analysis Report.

Practice 7

Generating the Item and Location Required Analysis Report

Identify the inventory that needs QC attention by generating the Item and Location Required Analysis Report.

Practice 7 Solution



Practice 7 Solution

Submit a New Request

What type of request do you want to run?

● Single Request
This allows you to submit an individual request.

○ Request Set
This allows you to subm
requests.

Reports

Find %

Name	Applicatio
Customer/Vendor Assay Results Report	Oracle Pr
Item/Location Assay Results Report	Oracle Pr
Item/Location Required Analysis Report	Oracle Pr
Production Assay Results Report	Oracle Pr

Practice 7 Solution

Generating the Item and Location Required Analysis Report

1. Open the Submit a New Request window, and click OK to submit a single request.

   (N) OPM Product Development > Quality Control > Reports > Run

2. Select the Item/Location Required Analysis Report from the Reports pop-up window, and
   click OK.

   The Parameters window opens.

3. In the Parameters window, enter the appropriate field parameters to produce the desired report. Click OK.

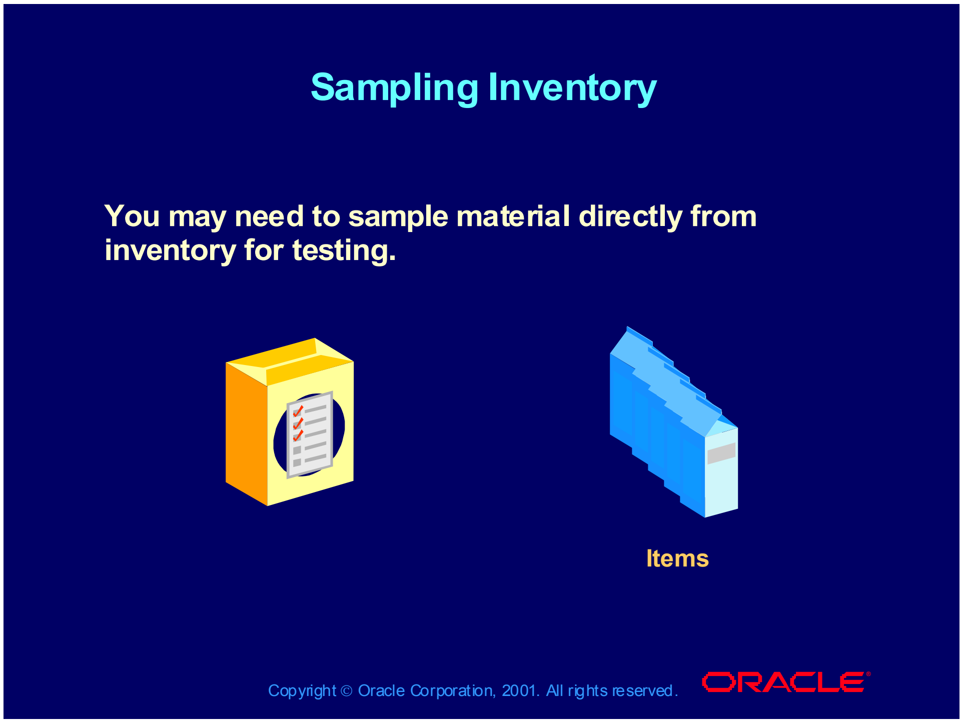
4. In the Submit Request window, accept execution defaults, and click Submit Request.

   Note: Be sure to note the request identification number separately.

5. Open the Requests window to see report results:

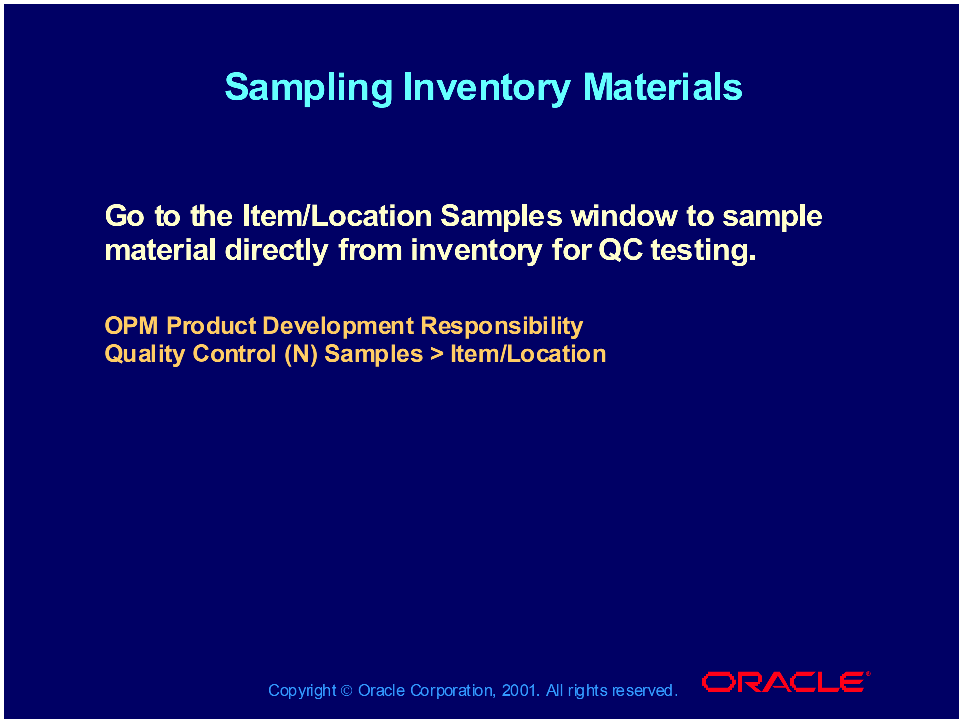
   (N) OPM Product Development > Quality Control > Reports > Run

Sampling Inventory



Sampling Inventory

You may need to sample material directly from inventory for testing.



Sampling Inventory Materials

Go to the Item/Location Samples window to sample material directly from inventory for QC testing.

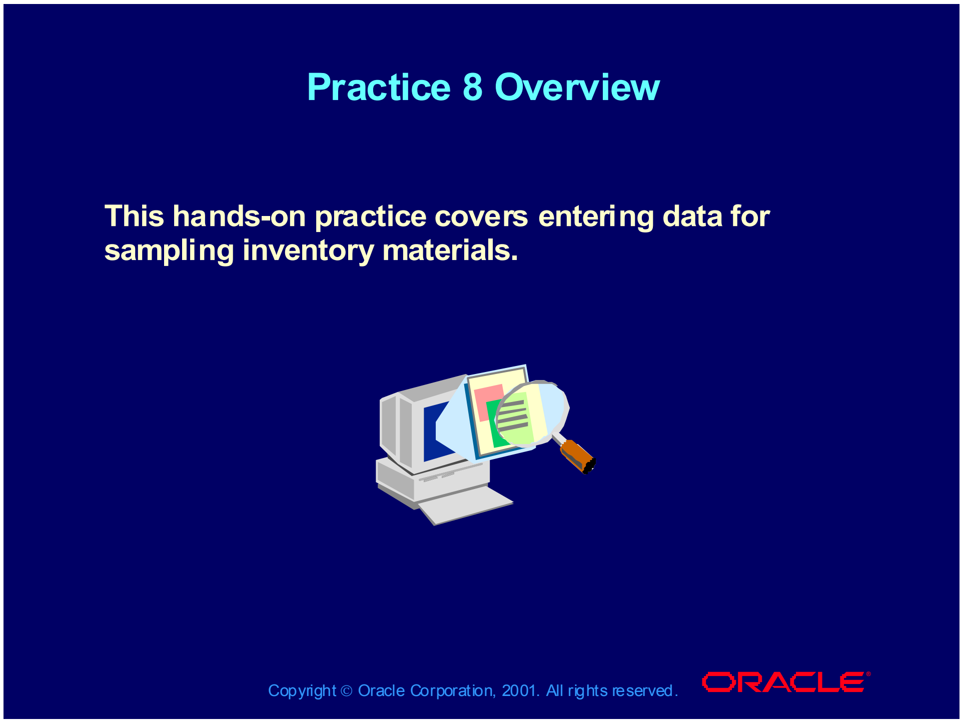
OPM Product Development Responsibility
Quality Control (N) Samples > Item/Location

(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User’s Guide > QC Sampling > Sampling Materials From Inventory

… > Sampling Materials From Inventory Procedure

… > Item/Location Samples Field Reference

Practice 8 Overview



Practice 8 Overview

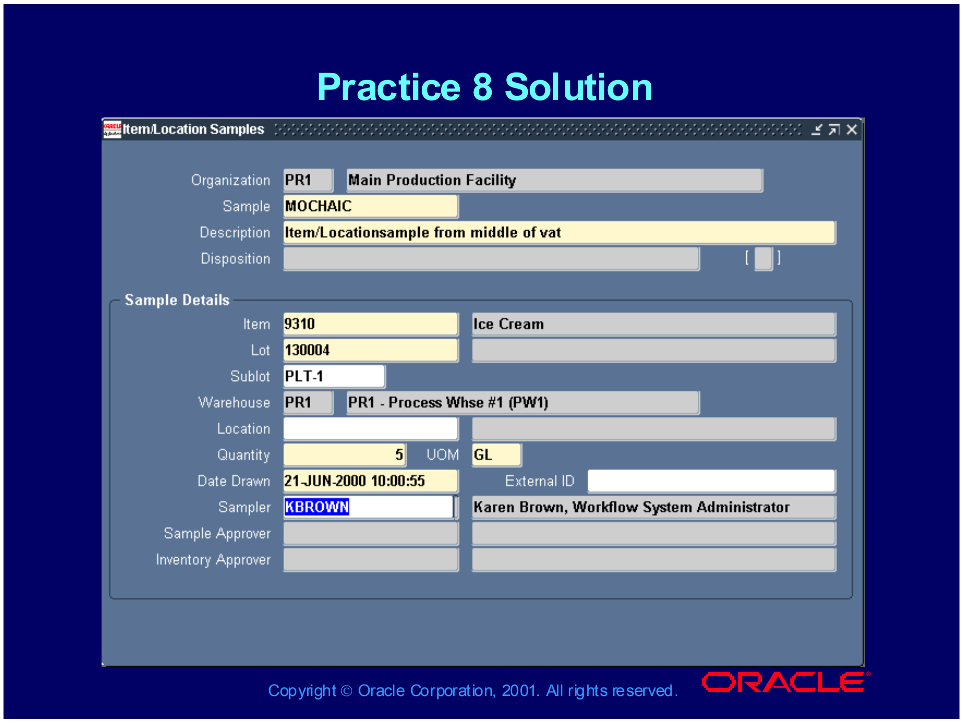
This hands-on practice covers entering data for sampling inventory materials.

Practice 8

Sampling Inventory Materials

You need to take item samples from a location. Set up sample details to sample from the ice cream lot for which you set up item and location specifications in practice 5.

Practice 8 Solution



Practice 8 Solution

Item/Location Samples

Organization: PR1 Main Production Facility
Sample: MOCHAIC
Description: Item/Locationsample from middle of vat
Disposition:

Sample Details

Item: 9310 Ice Cream
Lot: 130004
Sublot: PLT-1
Warehouse: PR1 PR1 - Process Whse #1 (PW1)
Location:
Quantity: 5 UOM: GL
Date Drawn: 21-JUN-2000 10:00:55 External ID:
Sampler: KBROWN Karen Brown, Workflow System Administrator
Sample Approver:
Inventory Approver:

Practice 8 Solution

Entering Data for Sampling Inventory Materials

1. Open the Item/Location Samples window:

   (N) OPM Product Development > Quality Control > Samples > Item/Location

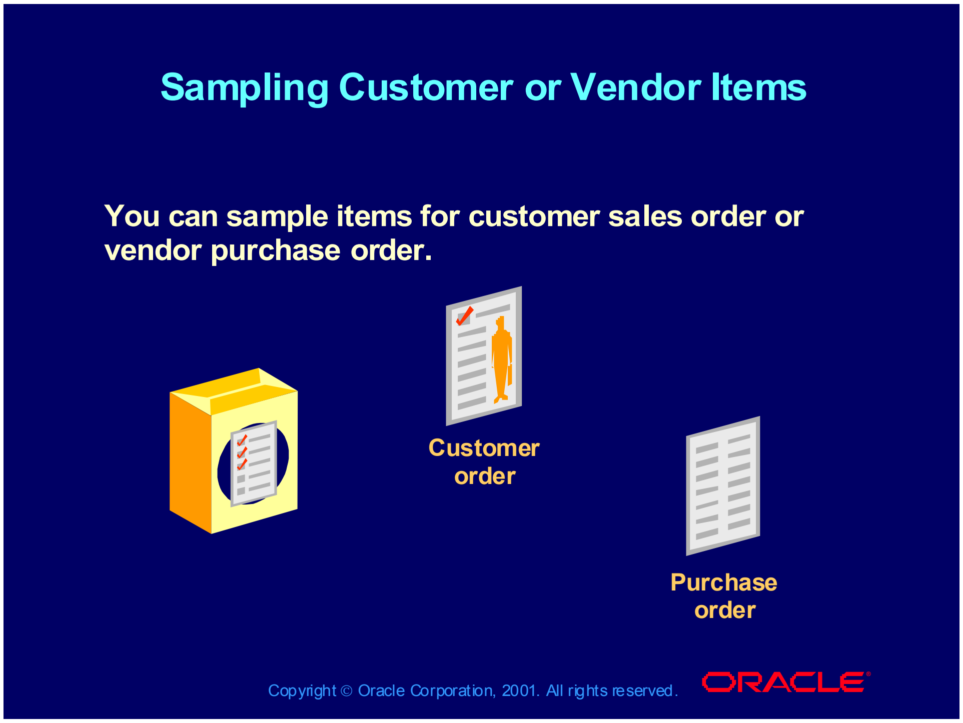
2. Enter a sample name and description for your sample.

   Note: If you default organization is not correct, open the Session Parameters window and select EOPC from the Organization list of values.

   (N) OPM Product Development > Quality Control > Other > Session Parameters

3. In the Samples Details region, enter the following information:
   – Item: `9310`
   – Lot: `100B`
   – Sublot: `1B`
   – Warehouse: `200A`
   – Location: `QC`
   – Quantity: `5`
   – UOM: `GAL`
   – Date Drawn: Current date
   – User: Your student identification

Sampling Customer or Vendor Items



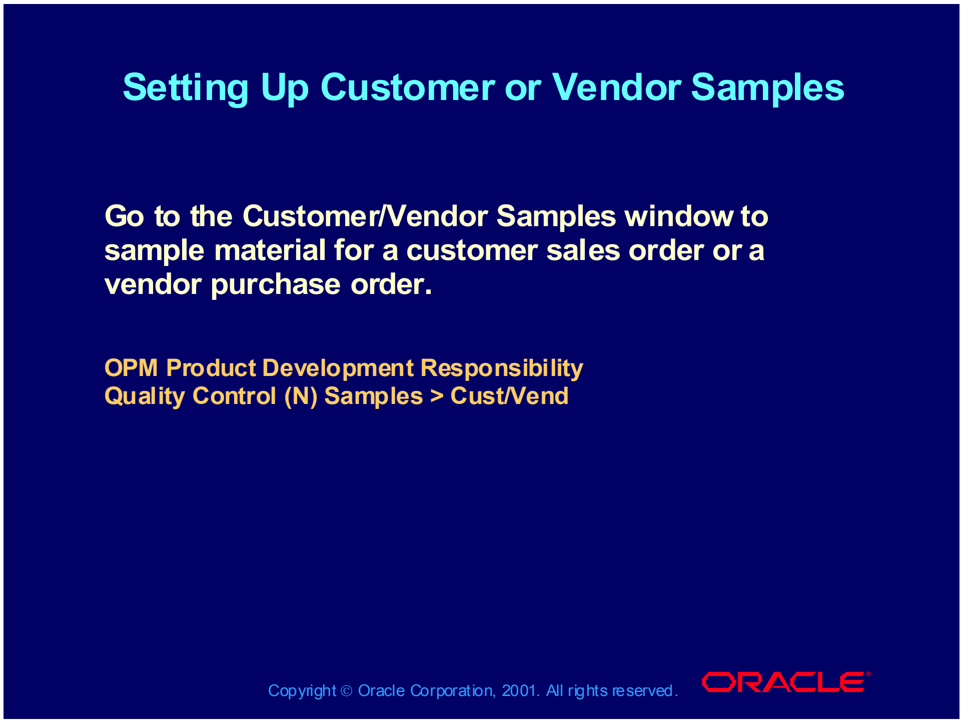
Sampling Customer or Vendor Items

You can sample items for customer sales order or vendor purchase order.

Customer order

Purchase order

Setting Up Customer or Vendor Samples



Setting Up Customer or Vendor Samples

Go to the Customer/Vendor Samples window to sample material for a customer sales order or a vendor purchase order.

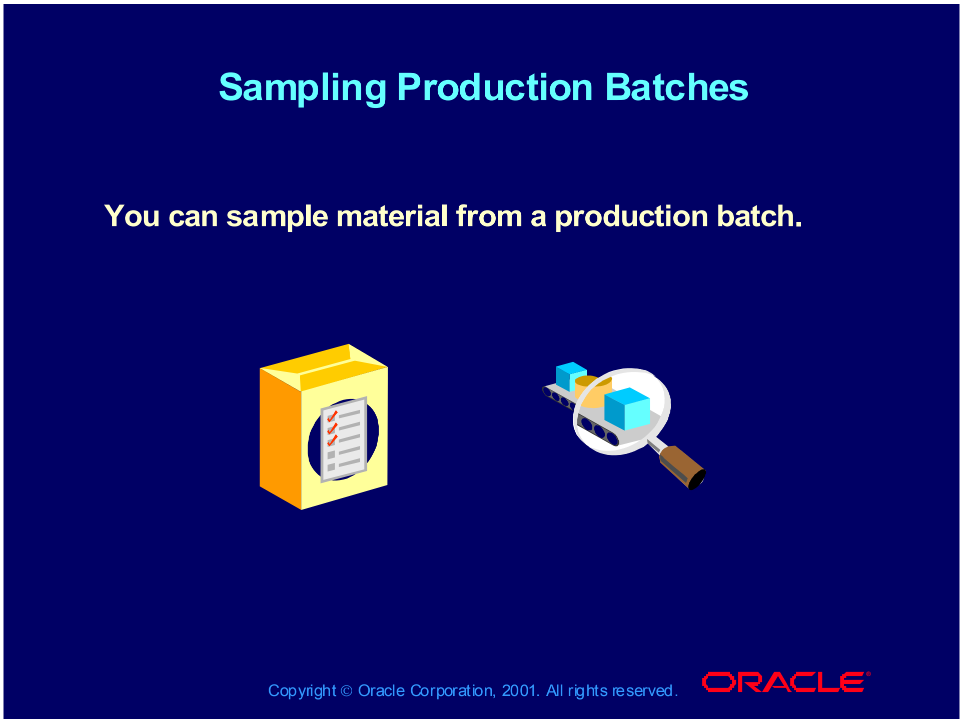
OPM Product Development Responsibility
Quality Control (N) Samples > Cust/Vend

(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User's Guide > QC Sampling > Sampling Customer / Vendor Materials

… > Sampling Customer/Vendor Materials Procedure

… > Customer/Vendor Samples Field Reference

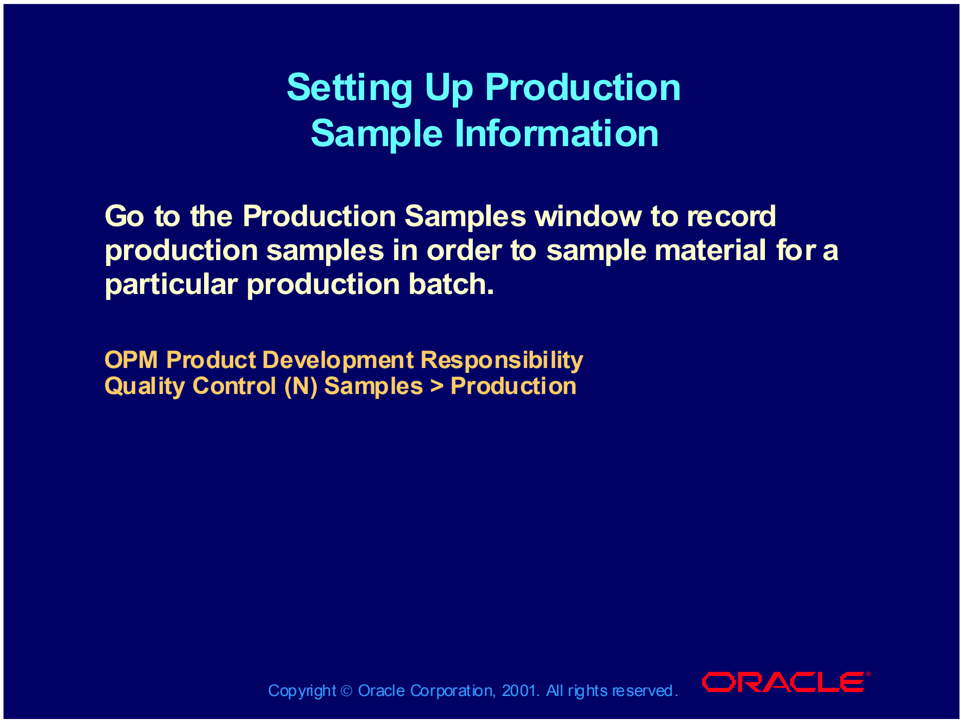
Sampling Production Batches



Sampling Production Batches

You can sample material from a production batch.

Setting Up Production Sample Information



Setting Up Production Sample Information

Go to the Production Samples window to record production samples in order to sample material for a particular production batch.

OPM Product Development Responsibility
Quality Control (N) Samples > Production

(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User’s Guide > QC Sampling > Sampling Production Materials

… > Sampling Production Materials Procedure

… > Production Samples Field Reference

Practice 9

Practice 9

This hands-on practice covers entering production samples.

Practice 9

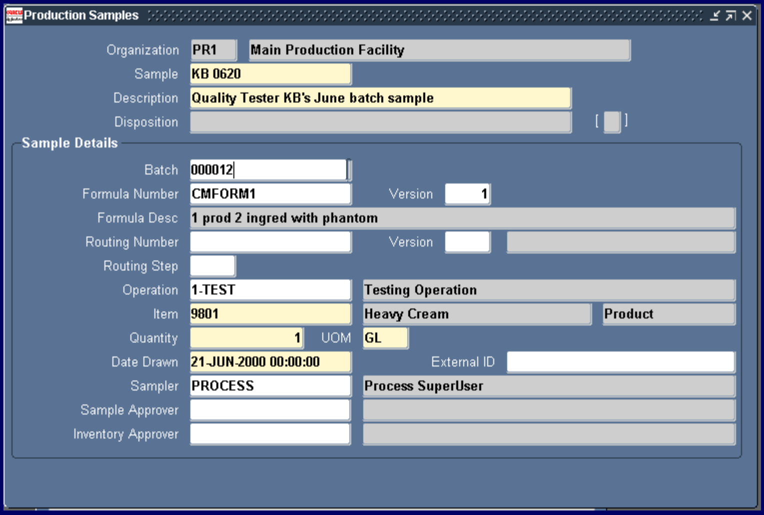
Setting Up Production Sample Information

Now you need to sample material from a particular production batch, recording the quantity sampled and the date and time the sample was drawn.

- Batch: 000012
- Formula Number: CM-FORM1
- Operation: 1-Test
- Item: CM111A

Practice 9 Solution

Practice 9 Solution



Production Samples

Organization: PR1 — Main Production Facility
Sample: KB 0620
Description: Quality Tester KB's June batch sample
Disposition:

Sample Details

Batch: 000012
Formula Number: CMFORM1 — Version: 1
Formula Desc: 1 prod 2 ingred with phantom
Routing Number: — Version:
Routing Step:
Operation: 1-TEST — Testing Operation
Item: 9801 — Heavy Cream — Product
Quantity: 1 — UOM: GL
Date Drawn: 21-JUN-2000 00:00:00 — External ID:
Sampler: PROCESS — Process SuperUser
Sample Approver:
Inventory Approver:

Practice 9 Solutions

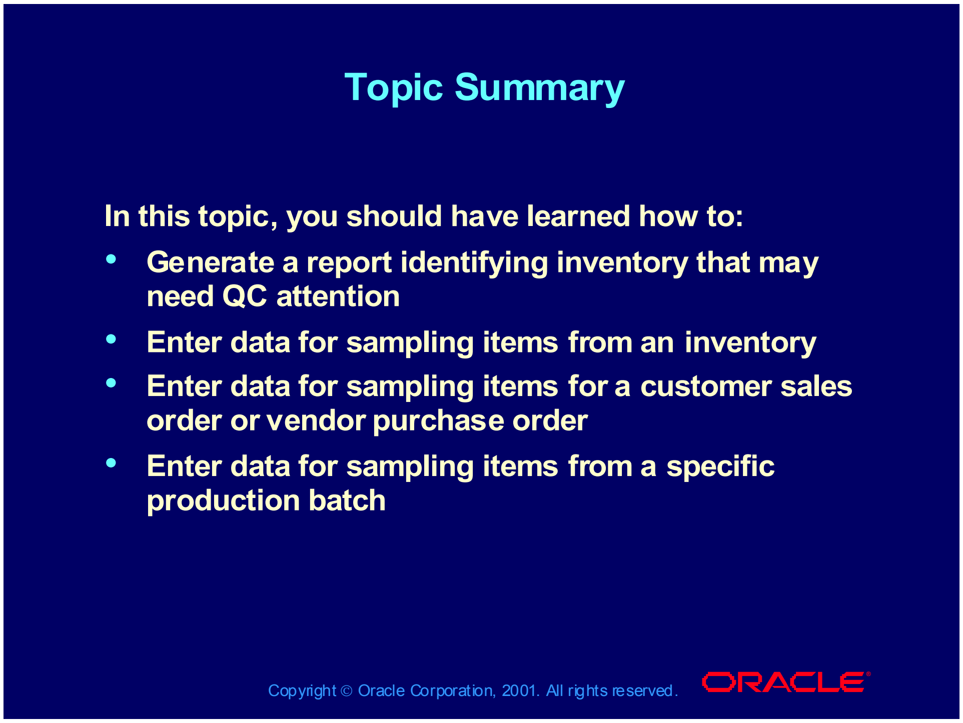
Setting Up Production Sample Information

1. Open the Production Samples window:

   (N) OPM Product Development > Quality Control > Samples > Production

2. Enter a sample name *XX-MMDD* where *XX* is your student number, *MM* is the current month, and *DD* is the current day.
3. Enter the appropriate data in the Sample Details region.
4. Save your work.

Topic Summary

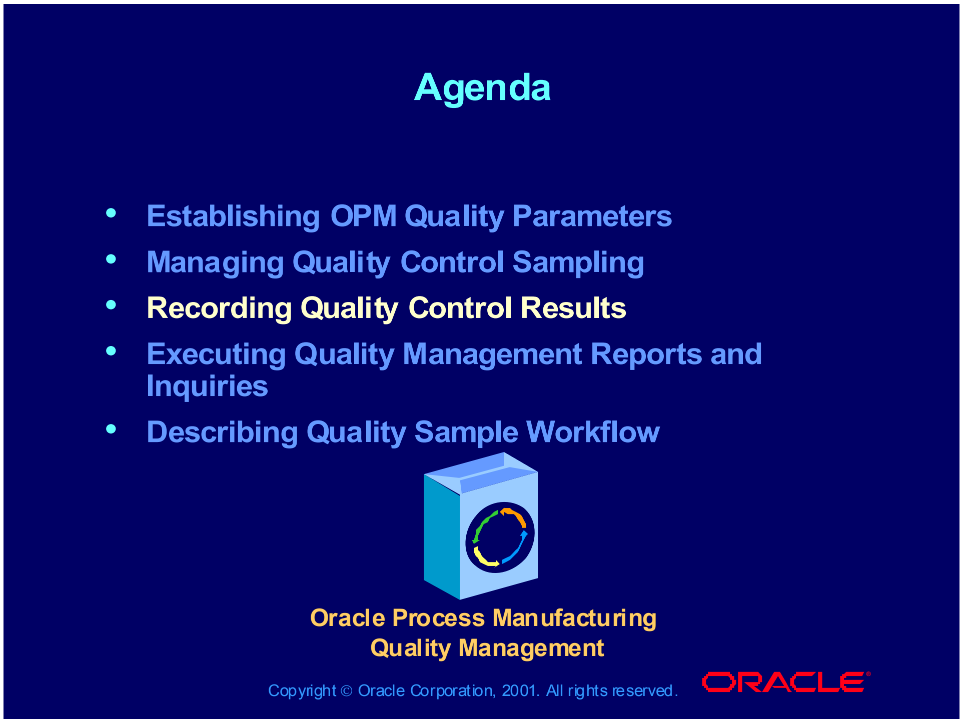


Topic Summary

In this topic, you should have learned how to:

- Generate a report identifying inventory that may need QC attention
- Enter data for sampling items from an inventory
- Enter data for sampling items for a customer sales order or vendor purchase order
- Enter data for sampling items from a specific production batch

Agenda

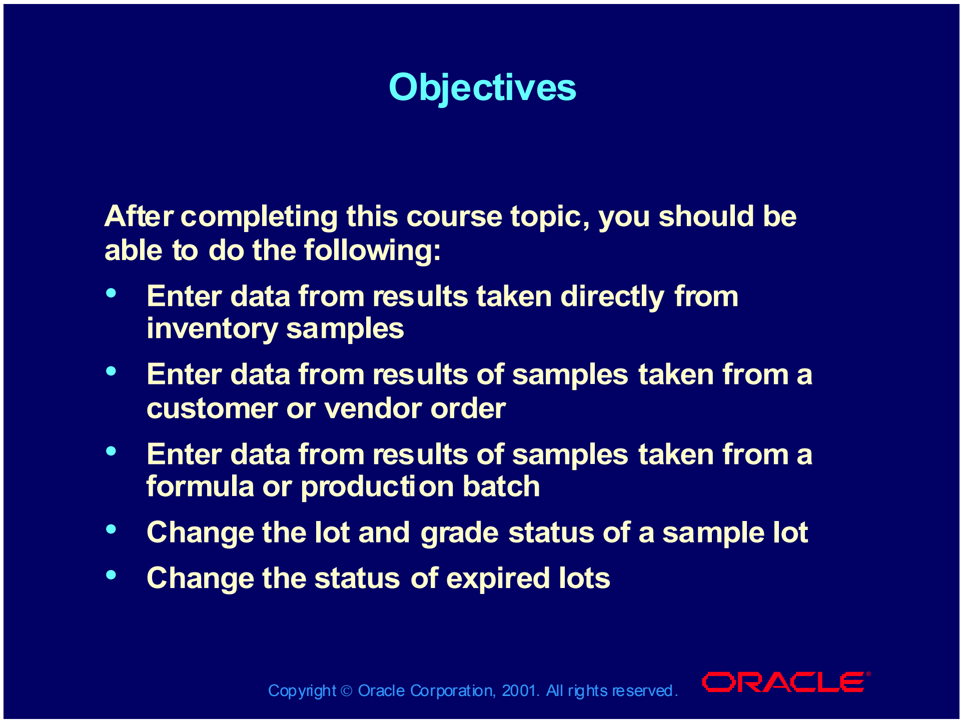


Agenda

- Establishing OPM Quality Parameters
- Managing Quality Control Sampling
- Recording Quality Control Results
- Executing Quality Management Reports and Inquiries
- Describing Quality Sample Workflow

Oracle Process Manufacturing
Quality Management

Objectives

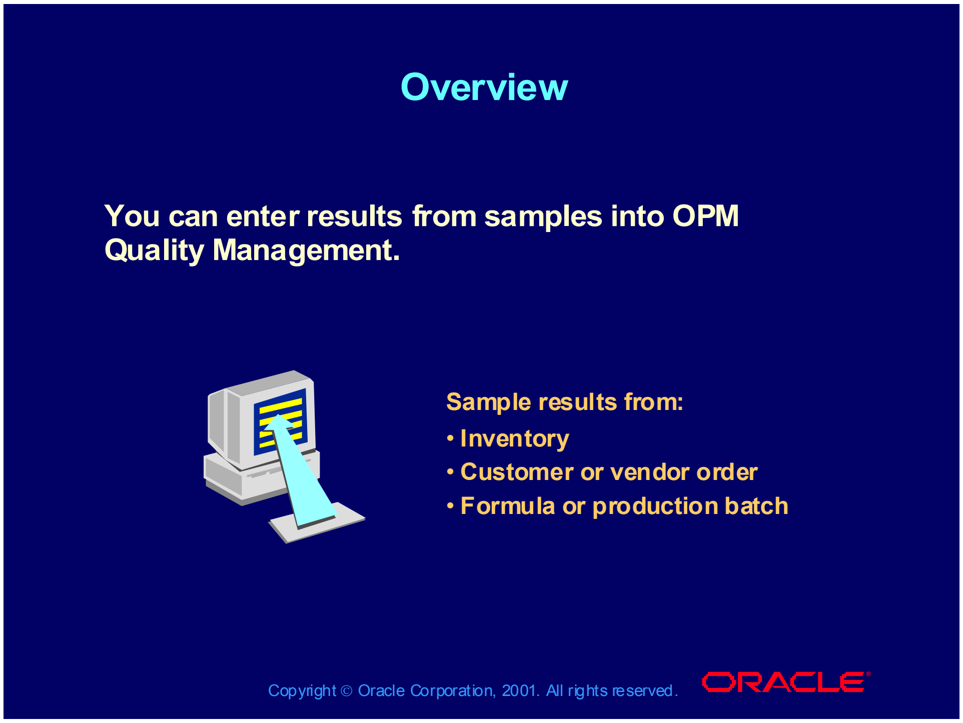


Objectives

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

- Enter data from results taken directly from inventory samples
- Enter data from results of samples taken from a customer or vendor order
- Enter data from results of samples taken from a formula or production batch
- Change the lot and grade status of a sample lot
- Change the status of expired lots

Overview

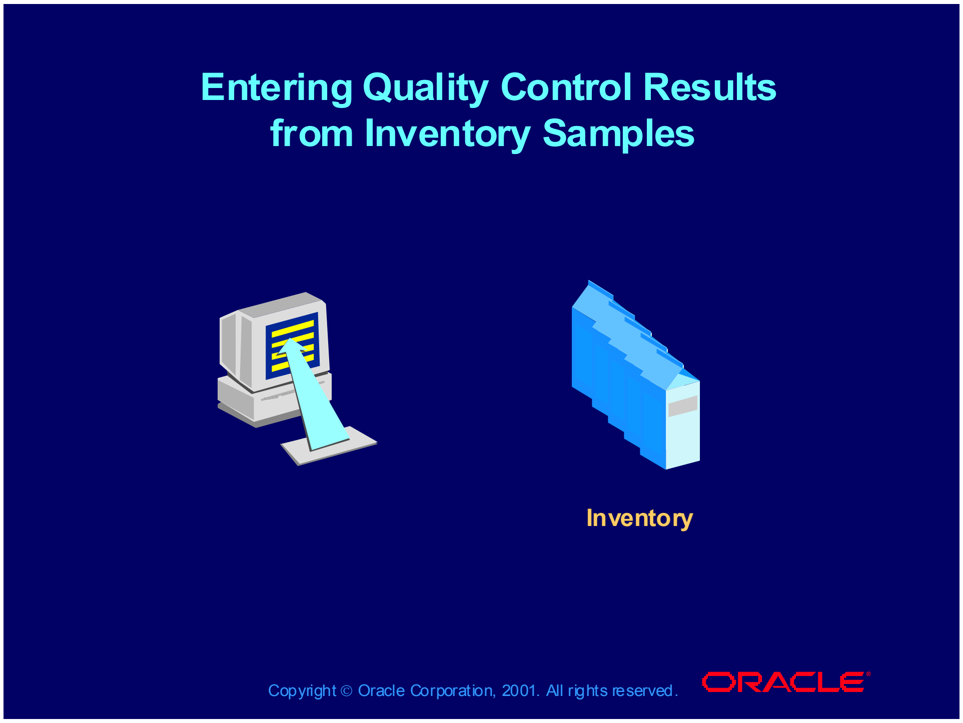


Overview

You can enter results from samples into OPM Quality Management.

Sample results from:

- Inventory
- Customer or vendor order
- Formula or production batch

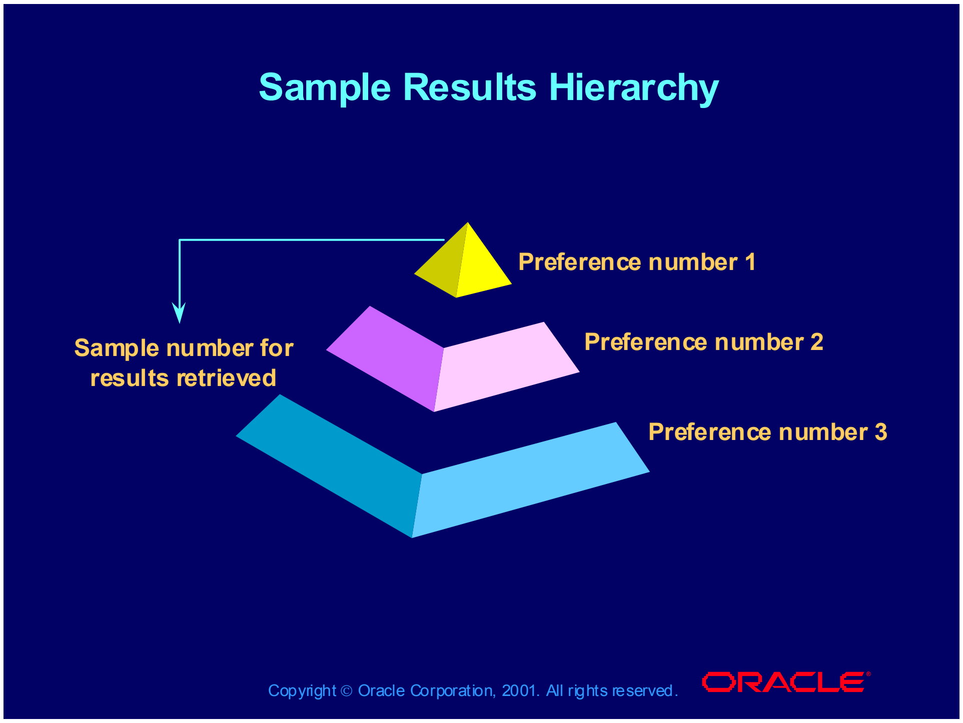


Entering Quality Control Results from Inventory Samples

Entering Quality Control Results from Inventory Samples

If you reject the material, change the inventory status in order to prevent it from being sold or used for production. This is accomplished in the OPM Inventory Module application.

Sample Results Hierarchy



Sample Results Hierarchy

Preference number 1

Preference number 2

Preference number 3

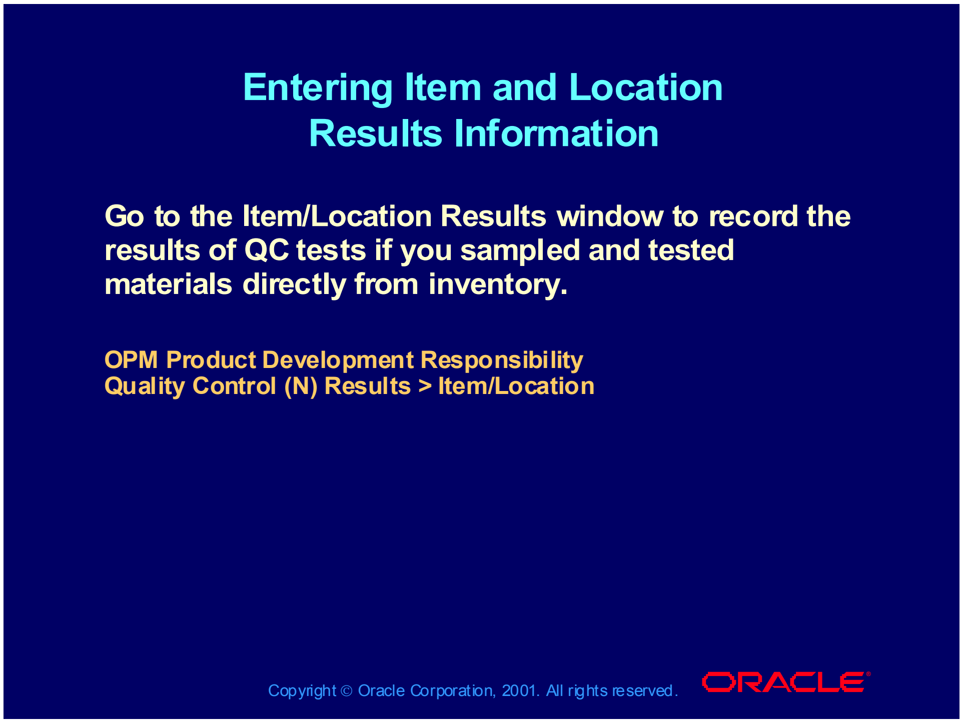
Sample number for results retrieved

Sample Results Hierarchy

The sample number is used to retrieve the assay test specifications you defined for the material. The specification criteria that most closely match the sample criteria appear in the Results window. (Specifications must be created before the sample.)

If there is more than one specification with different preference numbers, the specification with the highest preference number created before the sample is retrieved. This specification retrieval hierarchy is true for all three categories of QC results.

Entering Item and Location Results Information



Entering Item and Location Results Information

Go to the Item/Location Results window to record the results of QC tests if you sampled and tested materials directly from inventory.

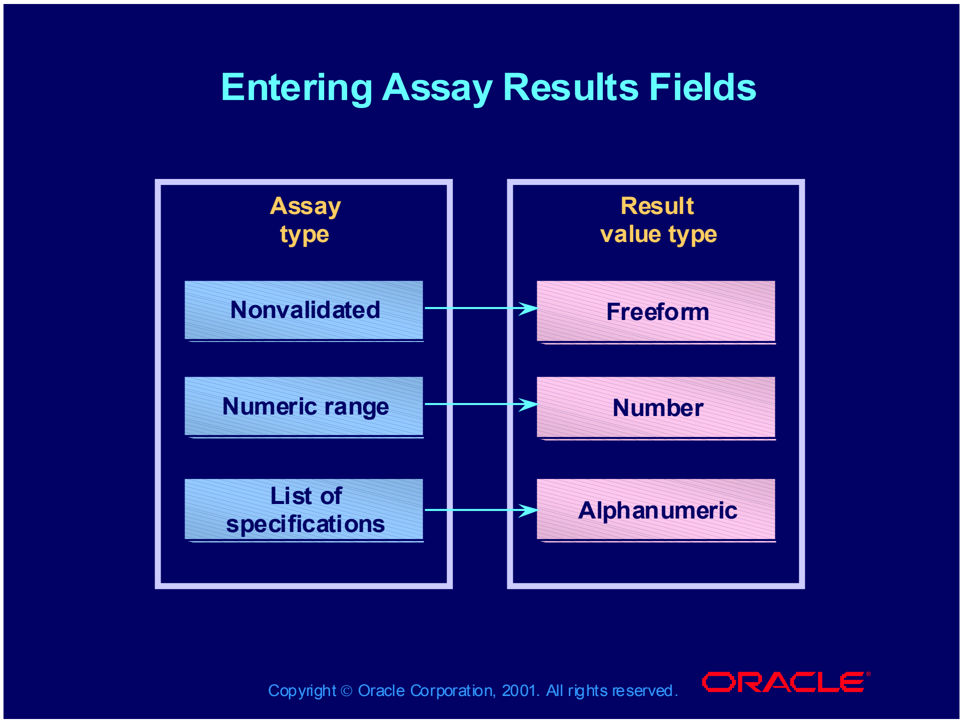
OPM Product Development Responsibility
Quality Control (N) Results > Item/Location

(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User's Guide > Recording QC Results > Entering Item / Location Results

… > Entering Item/Location Results Procedure

… > Item/Location Results Field Reference

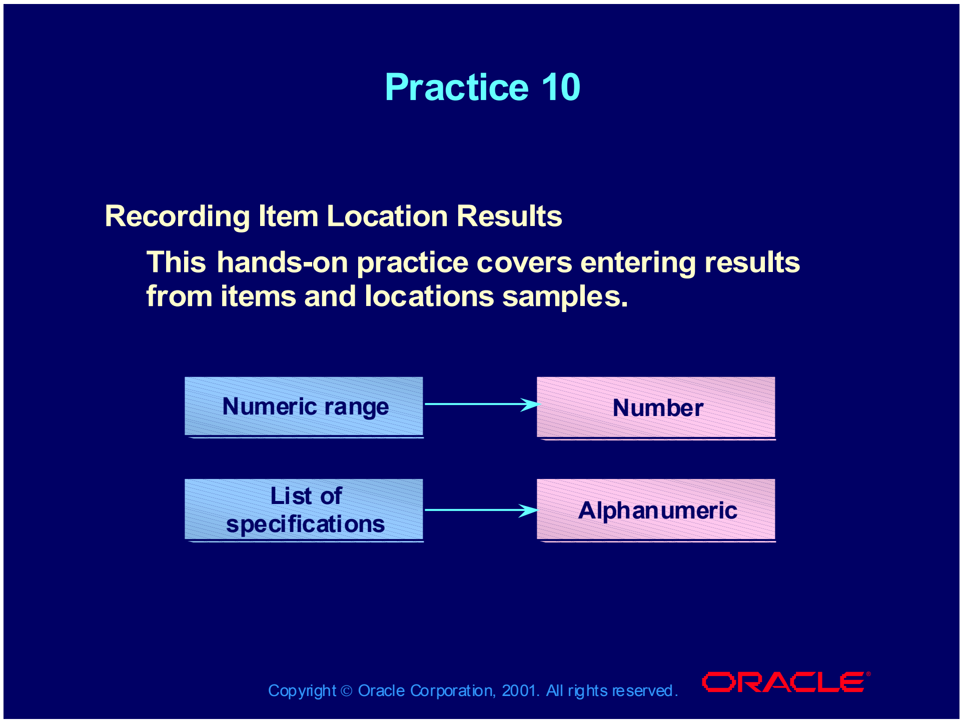
Entering Assay Results Fields



Entering Assay Results Fields

Assay type	Result value type
Nonvalidated	Freeform
Numeric range	Number
List of specifications	Alphanumeric

Practice 10



Practice 10

Recording Item Location Results

This hands-on practice covers entering results from items and locations samples.

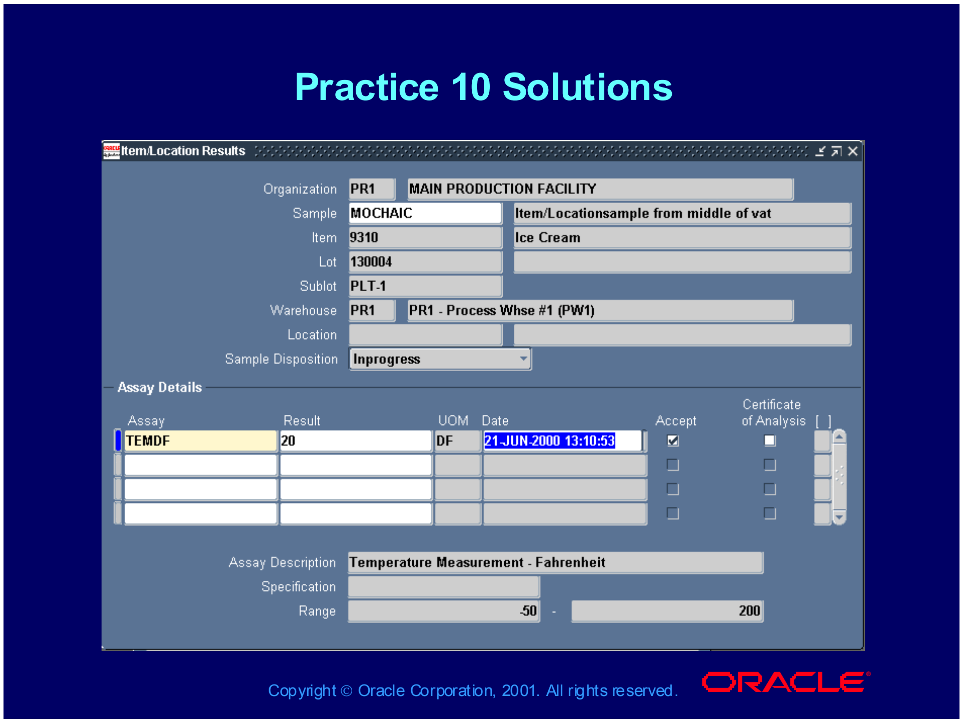
Numeric range → Number

List of specifications → Alphanumeric

Practice 10

Recording Item Location Results

The sample you set up in practice 8 is taken by the QC group. You need to record their sample results and make any necessary status or grade adjustments.



Practice 10 Solutions

Organization PR1 MAIN PRODUCTION FACILITY
Sample MOCHAIC Item/Locationsample from middle of vat
Item 9310 Ice Cream
Lot 130004
Sublot PLT-1
Warehouse PR1 PR1 - Process Whse #1 (PW1)
Location
Sample Disposition Inprogress

Assay Details

Assay	Result	UOM	Date	Accept	Certificate of Analysis
TEMDF	20	DF	21-JUN-2000 13:10:53	☑	☐
				☐	☐
				☐	☐
				☐	☐

Assay Description Temperature Measurement - Fahrenheit
Specification
Range -50 - 200

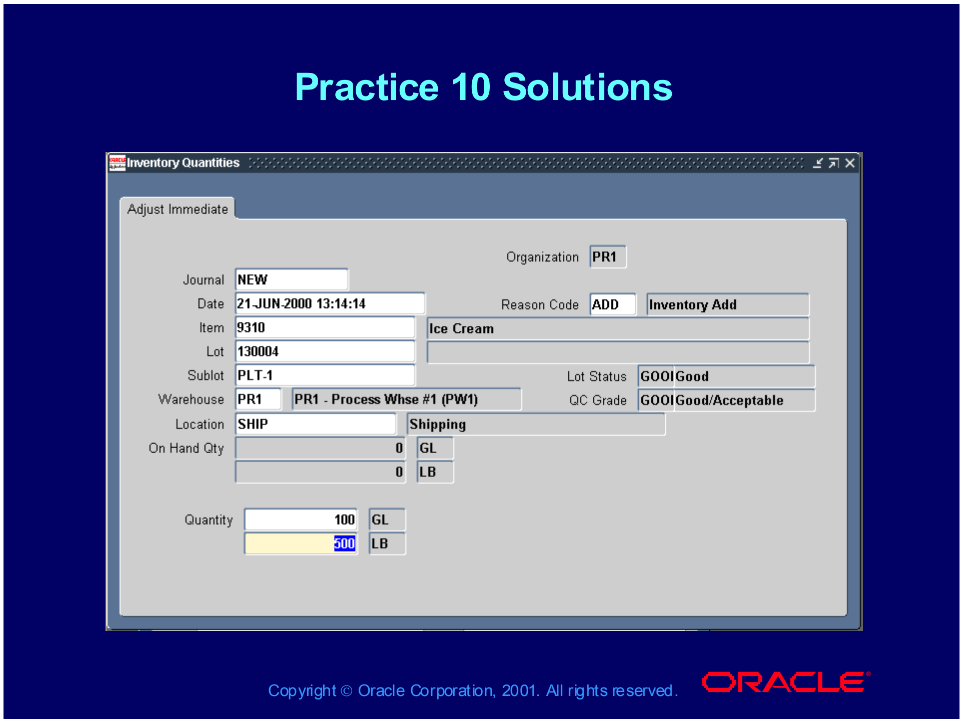
Practice 10 Solutions

Recording Item Location Results

1. Open the Item/Location Results window:

   (N) OPM Product Development > Quality Control > Results > Item/Location

2. Enter the sample name you set up in practice 8. Press [Tab] to populate the data in the top half of the window.
3. In the Assay Details region, enter the following:
   – Select the TEMDF assay from the list of values.
   – Enter a temperature result in Fahrenheit degrees.
   – Accept the default date if appropriate for your test.
   – Select the Accept check box if the temperature is in the acceptable range for your QC.
4. Save your work.



Practice 10 Solutions

Organization: PR1
Journal: NEW
Date: 21-JUN-2000 13:14:14
Reason Code: ADD Inventory Add
Item: 9310 Ice Cream
Lot: 130004
Sublot: PLT-1
Lot Status: GOO Good
Warehouse: PR1 PR1 - Process Whse #1 (PW1)
QC Grade: GOO Good/Acceptable
Location: SHIP Shipping
On Hand Qty: 0 GL
0 LB
Quantity: 100 GL
500 LB

Practice 10 Solutions (continued)

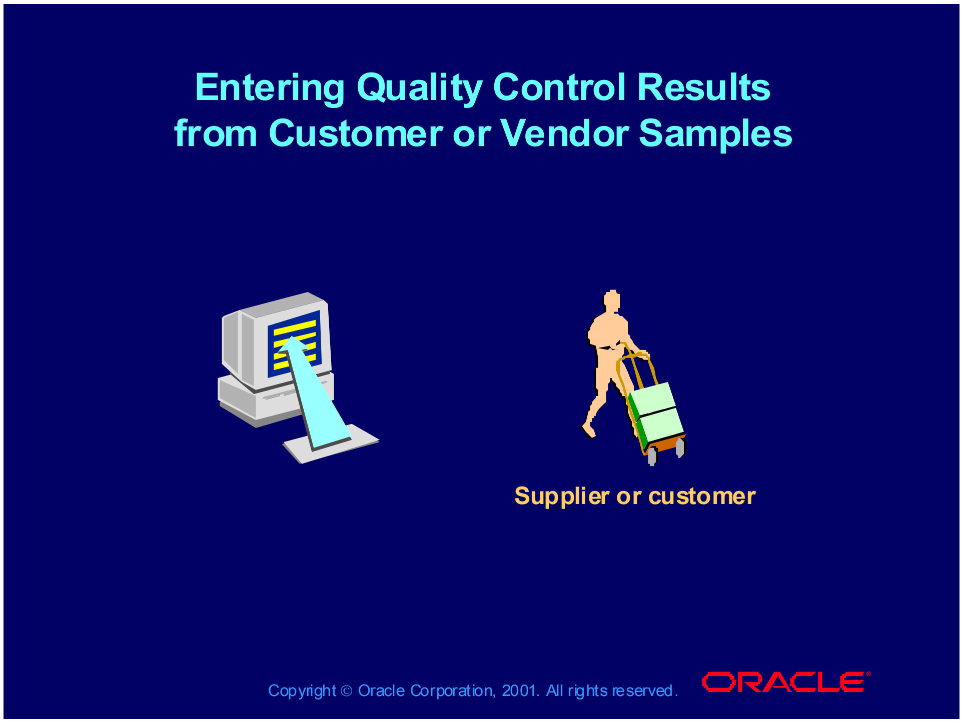
Recording Item Location Results (continued)

5. At this point, you can adjust the status or grade. Open the Inventory Quantities window:

   (N) OPM Inventory > Inventory Control > Quantities

6. If you want to prevent the lot from which the sample was taken from being sold or used for production, edit the lot status or QC grade.

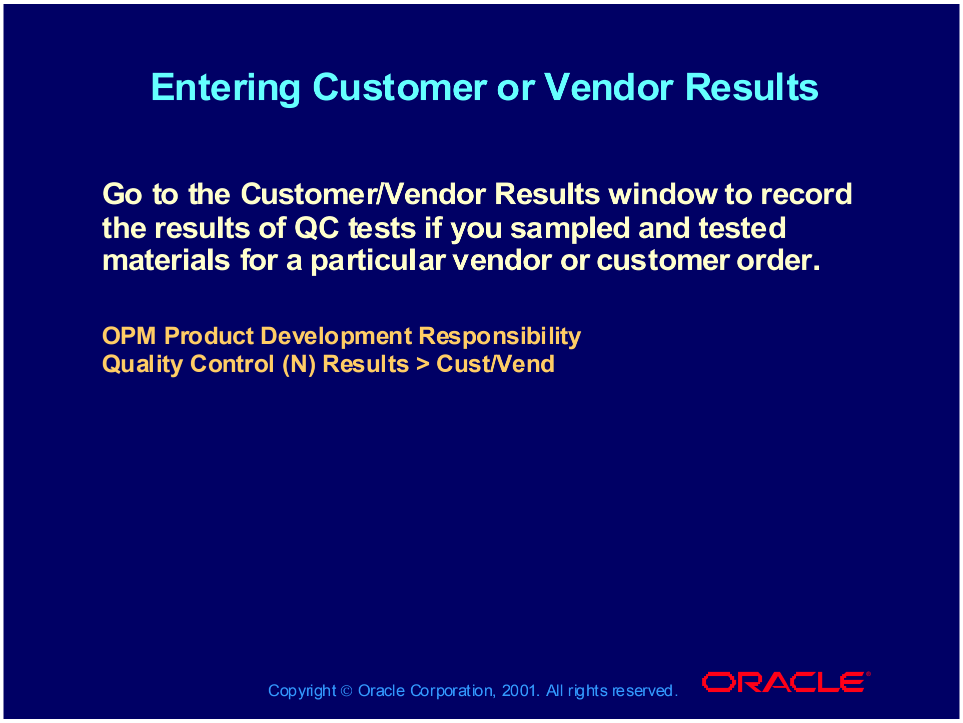
Entering Quality Control Results from Customer or Vendor Samples



Entering Quality Control Results from Customer or Vendor Samples

Supplier or customer

Entering Customer or Vendor Results



Entering Customer or Vendor Results

Go to the Customer/Vendor Results window to record the results of QC tests if you sampled and tested materials for a particular vendor or customer order.

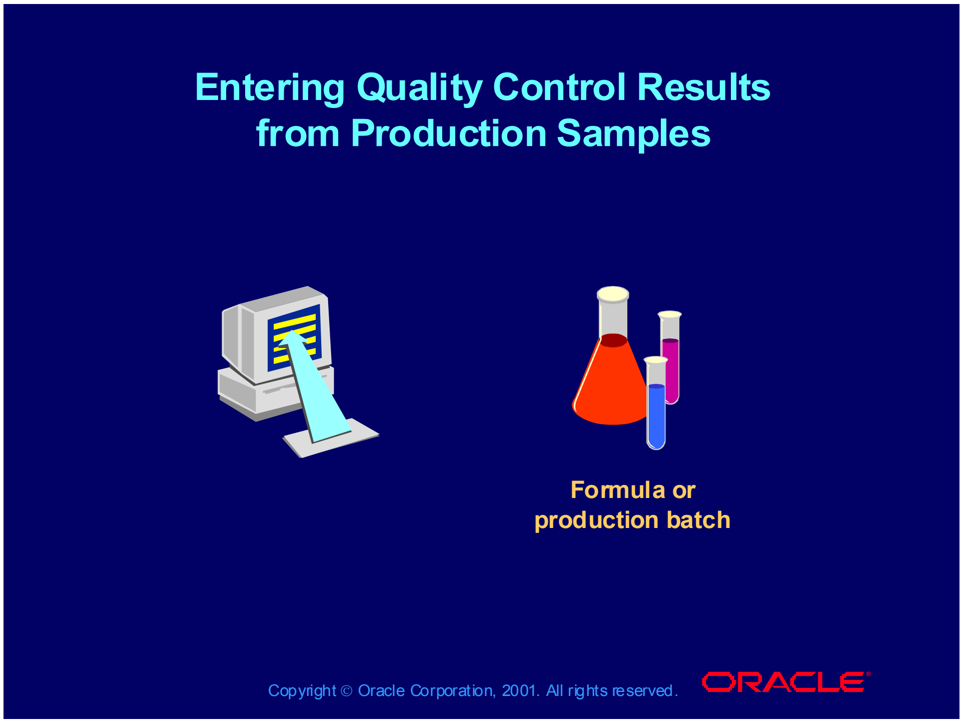
OPM Product Development Responsibility
Quality Control (N) Results > Cust/Vend

(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User’s Guide > Recording QC Results > Entering Customer/Vendor Results

… > Entering Customer/Vendor Results Procedure

… > Customer/Vendor Results Field Reference

Entering Quality Control Results from Production Samples



Entering Quality Control Results from Production Samples

Formula or production batch

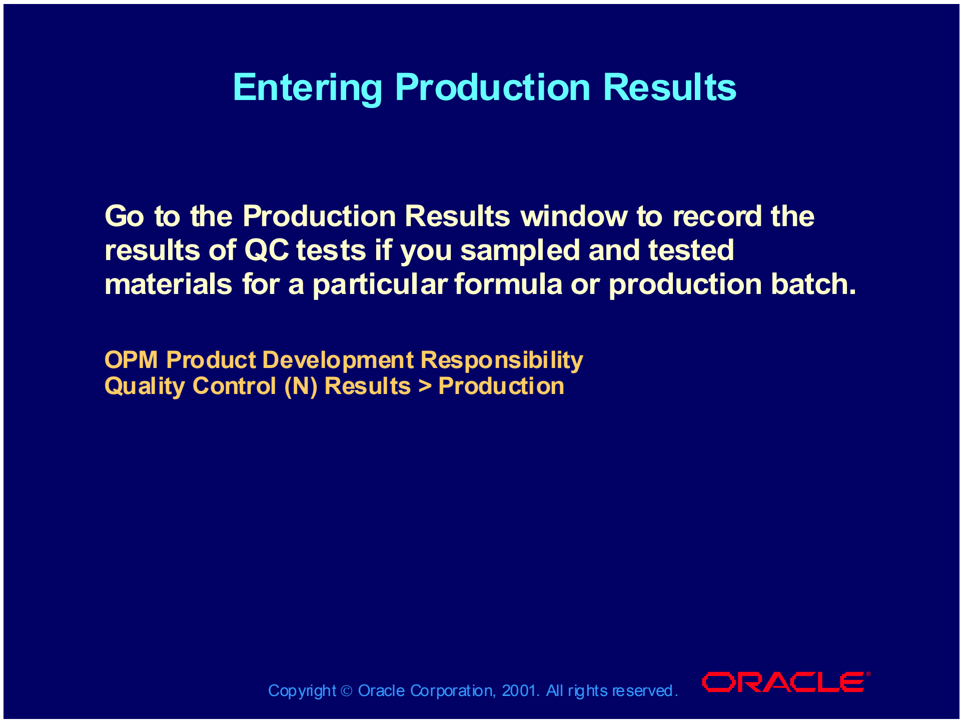
Entering Quality Control Results from Production Samples

When you enter results, the specifications you defined for the material are retrieved automatically from the Oracle Process Manufacturing database. For each assay, you enter the result of QC tests, the date of the test, and whether to accept or reject the material.

Remember, if you reject material, you must manually change the inventory status to prevent it from being sold or used for production.

Note: For the hierarchy of specification, see the “Recording Quality Control Results” section of the OPM Quality Management User’s Guide, Release 11*i*.

Entering Production Results



Entering Production Results

Go to the Production Results window to record the results of QC tests if you sampled and tested materials for a particular formula or production batch.

OPM Product Development Responsibility
Quality Control (N) Results > Production

(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User's Guide > Recording QC Results > Entering Production Results

… > Entering Production Results Procedure

… > Production Results Field Reference

Practice 11

Practice 11

Recording Vendor Results

This hands-on practice covers entering results from assays for customer orders or vendor items.

Customer

Vendor

Production

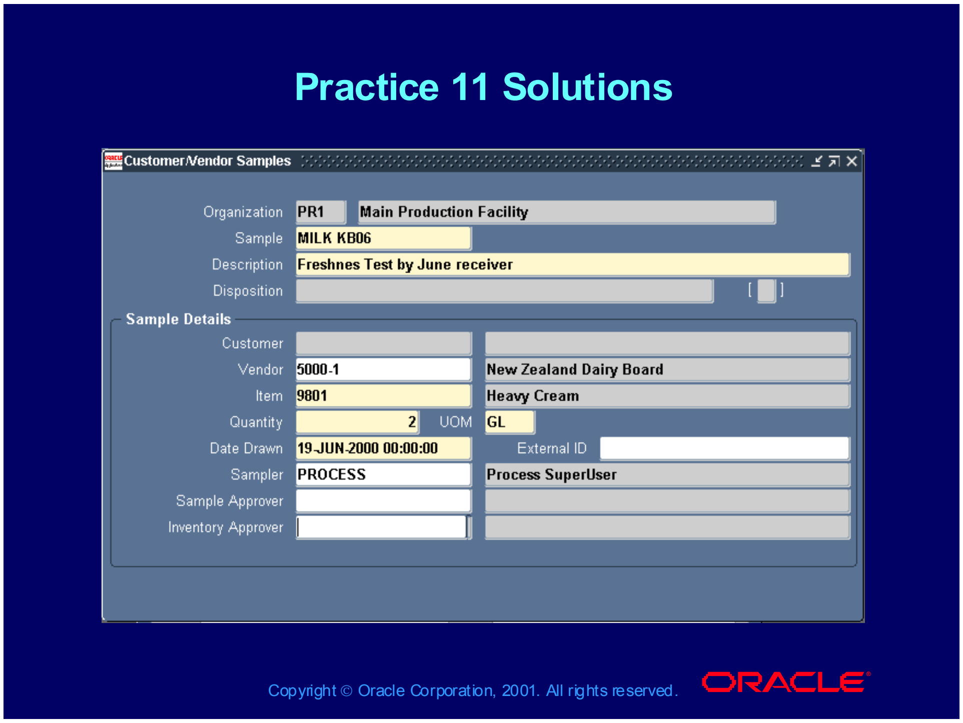
Practice 11

Recording Vendor Results

To practice recording vendor results, you need to set up a vendor sample from the vendor specifications set up in practice 5. In the Customer/Vendor Samples window, enter the KT-LIST global assay in the Assay Details region, and enter FRESH as the acceptable result.

Then record vendor results with results other than FRESH, and do not accept the sample.

Practice 11 Solutions



Practice 11 Solutions

Organization: PR1 Main Production Facility
Sample: MILK KB06
Description: Freshnes Test by June receiver
Disposition:

Sample Details

Customer:
Vendor: 5000-1 New Zealand Dairy Board
Item: 9801 Heavy Cream
Quantity: 2 UOM: GL
Date Drawn: 19-JUN-2000 00:00:00 External ID:
Sampler: PROCESS Process SuperUser
Sample Approver:
Inventory Approver:

Practice 11 Solutions

Setting Up a Vendor Sample

1. Open the Customer/Vendor Samples window:

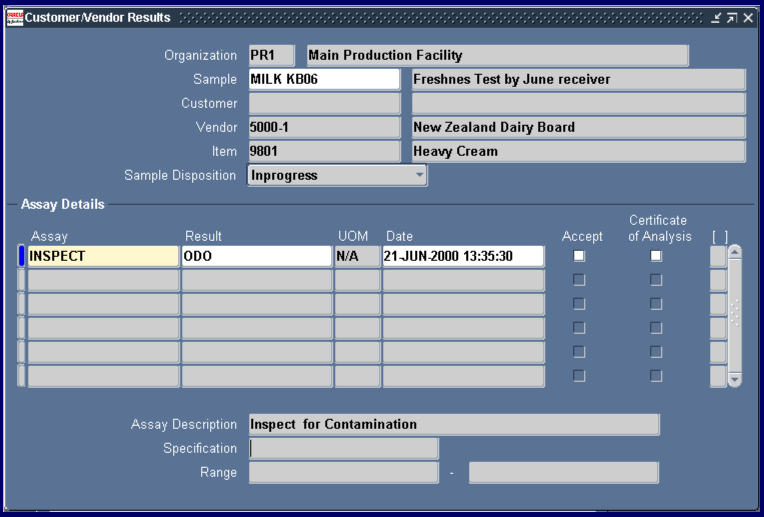
   (N) OPM Product Development > Quality Control > Samples > Cust/Vend

2. Enter the following data:
   - Sample: `MILK-`*XXMM*, where *XX* is your terminal number, and *MM* is the
     current month.
   - Vendor: `5000-1 New Zealand Dairy Board`
   - Item: `9801`
   - Quantity: `2`
   - UOM: `GAL`
   - Date Drawn: Accept the defaults in the Date Drawn and User fields.

3. Save your work.

Practice 11 Solutions

Practice 11 Solutions



Organization	PR1	Main Production Facility
Sample	MILK KB06	Freshnes Test by June receiver
Customer		
Vendor	5000-1	New Zealand Dairy Board
Item	9801	Heavy Cream
Sample Disposition	Inprogress	

Assay Details

Assay	Result	UOM	Date	Accept	Certificate of Analysis
INSPECT	ODO	N/A	21-JUN-2000 13:35:30	☐	☐
				☐	☐
				☐	☐
				☐	☐
				☐	☐
				☐	☐

Assay Description: Inspect for Contamination

Specification:

Range: -

Practice 11 Solutions (continued)

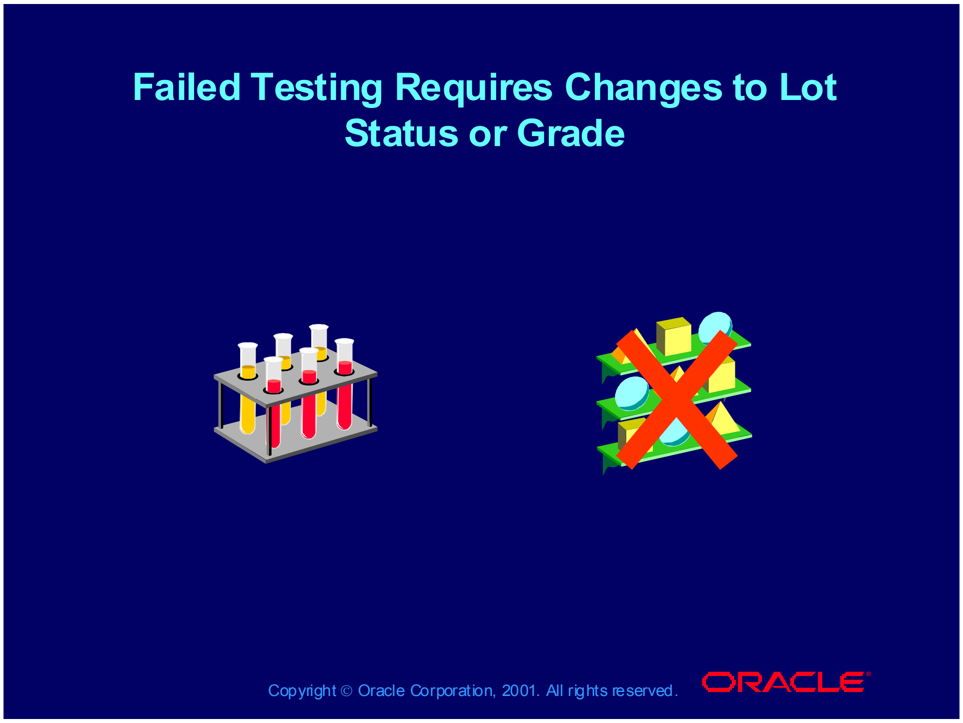
Recording Vendor Sample Results

1. Open the Customer/Vendor Results window:

   (N) OPM Product Development > Quality Control > Results > Cust/Vend

2. Enter the sample name `MILK-`*`XXMM`*. Press [Tab] to populate the data in the top half of the window.
3. In the Assay Details region, enter the following:
   - Select the INSPECT assay from the list of values.
   - Enter a result.
   - Accept the default date if appropriate for your test.
   - Do not select the Accept check box.
4. Save your work.

Failed Testing Requires Changes to Lot Status or Grade



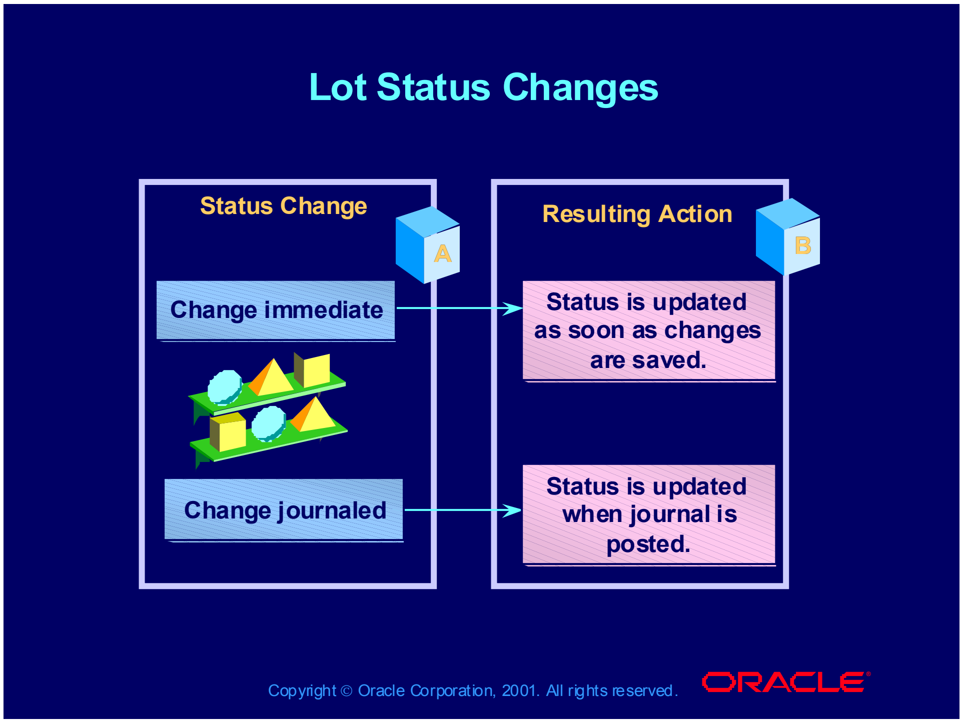
Failed Testing Requires Changes to Lot Status or Grade

Inventory Changes

Once it has been determined that a sample does not meet QC specifications or has failed QC tests, you may need to change either the lot status or the QC grade of the sample lot. You can select one of three options for changing either the lot status or the QC grade.

This does not automatically prevent the lot from which the sample was taken from being sold or used for production. If you reject material, you must manually change the inventory status to prevent it from being sold or used for production.

Lot Status Changes



Lot Status Changes

Status Change

Change immediate

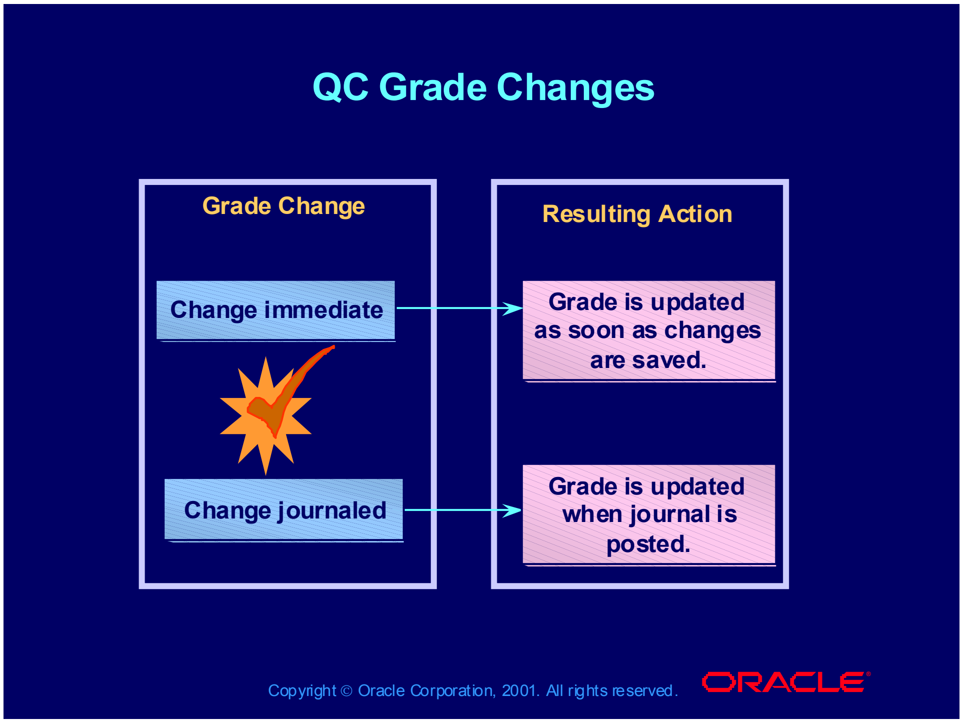
Change journaled

Resulting Action

Status is updated as soon as changes are saved.

Status is updated when journal is posted.

QC Grade Changes



QC Grade Changes

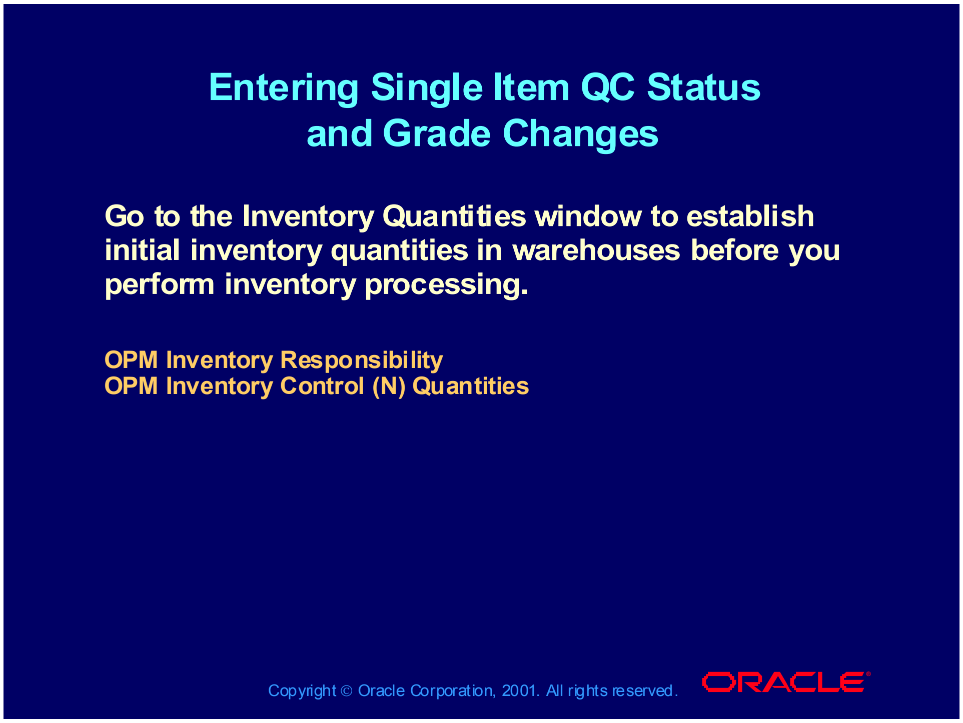
Grade Change

- Change immediate
- Change journaled

Resulting Action

- Grade is updated as soon as changes are saved.
- Grade is updated when journal is posted.

Entering Single Item QC Status and Grade Changes



Entering Single Item QC Status and Grade Changes

Go to the Inventory Quantities window to establish initial inventory quantities in warehouses before you perform inventory processing.

OPM Inventory Responsibility
OPM Inventory Control (N) Quantities

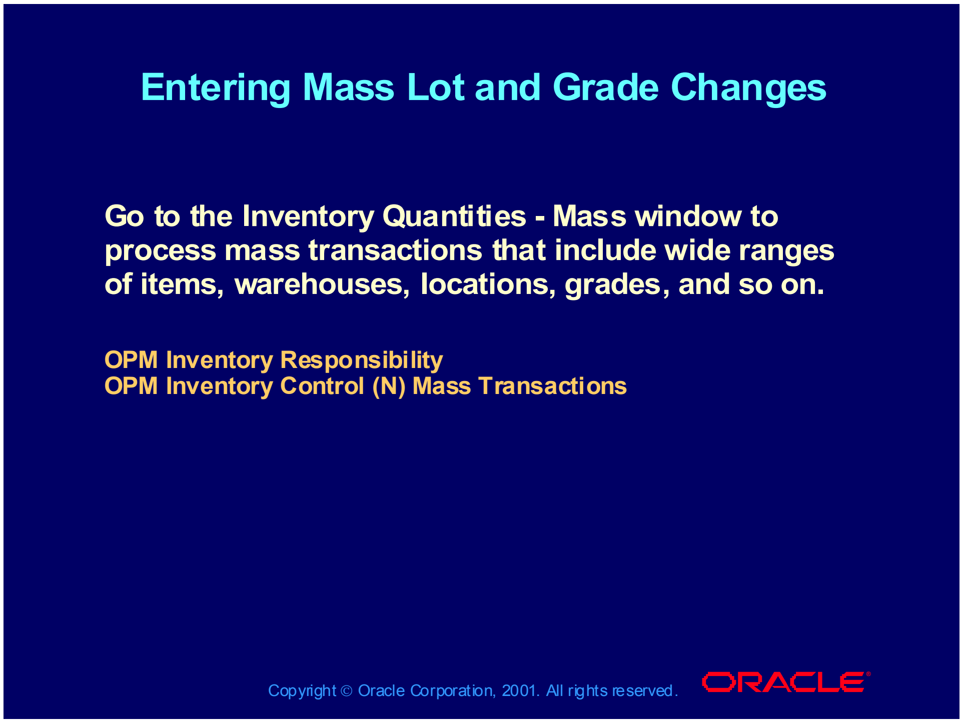
(Help) OPM Inventory > OPM Inventory Management User's Guide > Processing Inventory Transactions > Using the Inventory Quantities Window

… > Using the Inventory Quantities Window Procedure

… > Inventory Quantities Field References

Note: You must define document ordering parameters prior to performing status and grade changes.

Entering Mass Lot and Grade Changes



Entering Mass Lot and Grade Changes

Go to the Inventory Quantities - Mass window to process mass transactions that include wide ranges of items, warehouses, locations, grades, and so on.

OPM Inventory Responsibility
OPM Inventory Control (N) Mass Transactions

(Help) OPM Inventory > OPM Inventory Management User's Guide > Processing Inventory Transactions > Processing Mass Transactions

… > Processing Mass Transactions Procedure

… > Inventory Quantities - Mass Field References

… > Inventory Quantities - Mass Additional Setup in Inventory Management

Description of Mass Lot and Grade Changes

Mass Status Immediate:

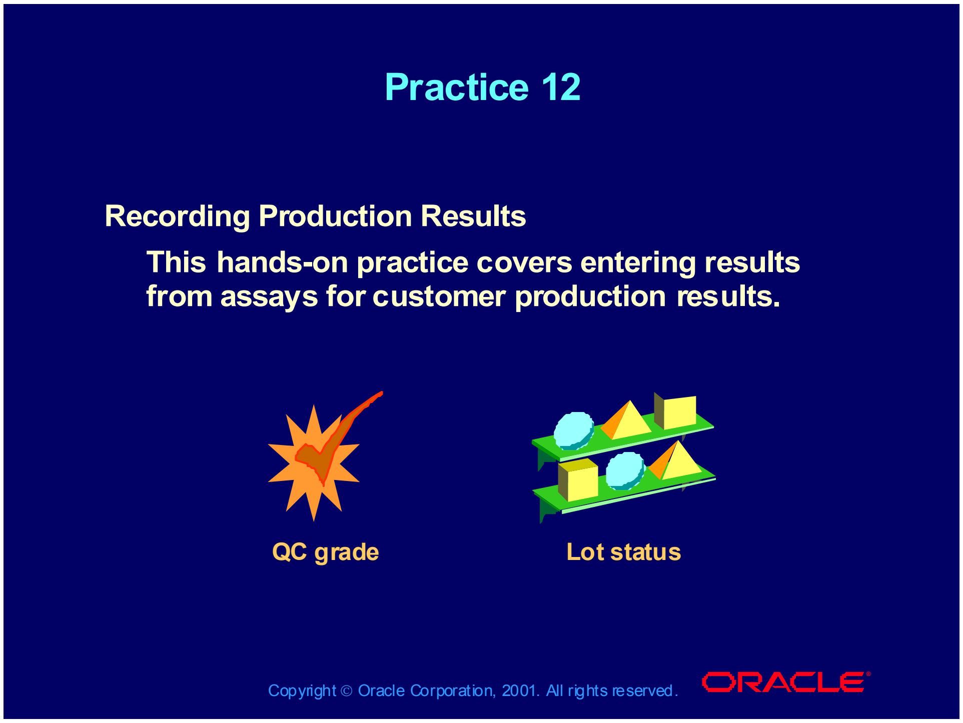
- The lot status for one or many items in all, one, or a range of lots, sublots, warehouses, locations or grades can be changed.
- Lot statuses are updated as soon as changes are saved.

Mass Grade Immediate:

- The grade for one or many items in all, one, or a range of lots, sublots, warehouses, or locations can be changed.
- The grades are updated as soon as the changes are saved.

Grade is a characteristic of an item lot, never a location. When you change the grade of an item lot, specifying the warehouse location of that lot does not assign a grade to the location.

Practice 12



Practice 12

Recording Production Results

This hands-on practice covers entering results from assays for customer production results.

QC grade

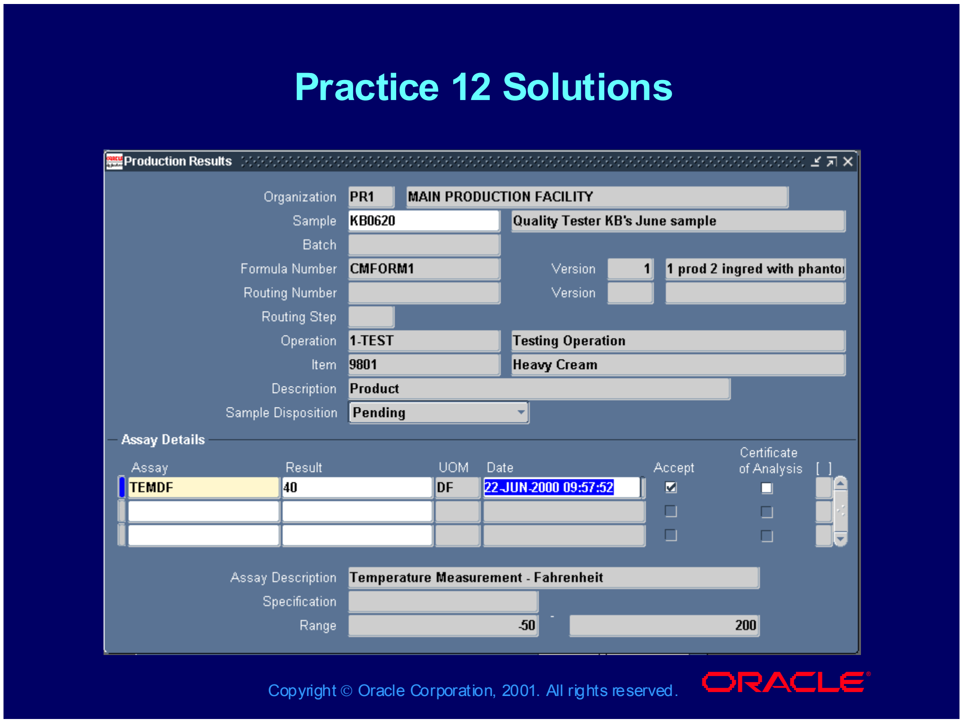
Lot status

Practice 12

Recording Production Results

The production batch sample you set up in practice 9 is taken by the QC group. You need to record their sample results.

Practice 12 Solutions



Practice 12 Solutions

Organization	PR1	MAIN PRODUCTION FACILITY
Sample	KB0620	Quality Tester KB's June sample
Batch		
Formula Number	CMFORM1	Version 1 · 1 prod 2 ingred with phanto
Routing Number		Version
Routing Step		
Operation	1-TEST	Testing Operation
Item	9801	Heavy Cream
Description	Product	
Sample Disposition	Pending	

Assay Details

Assay	Result	UOM	Date	Accept	Certificate of Analysis
TEMDF	40	DF	22-JUN-2000 09:57:52	☑	☐
				☐	☐
				☐	☐

Assay Description	Temperature Measurement - Fahrenheit	
Specification		
Range	-50	200

Practice 12 Solutions

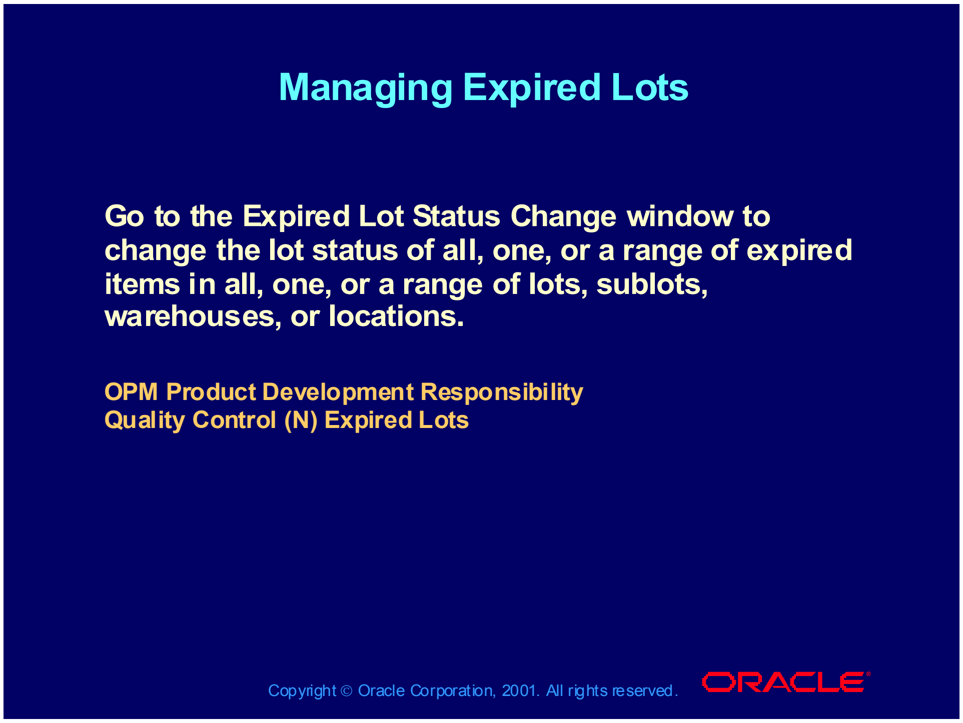
Recording Production Results

1. Open the Production Results window:

   (N) OPM Product Development > Quality Control > Results > Production

2. Enter the sample name *XX-MMDD* that you set up in practice 9. Press [Tab] to populate the data in the top half of the window.
3. In the Assay Details region, enter the following:
   - Select an assay from the list of values.
   - Enter results that are within the acceptable specifications or ranges for the assay.
   - Select the Accept check box.
4. Save your work.

Managing Expired Lots



Managing Expired Lots

Go to the Expired Lot Status Change window to change the lot status of all, one, or a range of expired items in all, one, or a range of lots, sublots, warehouses, or locations.

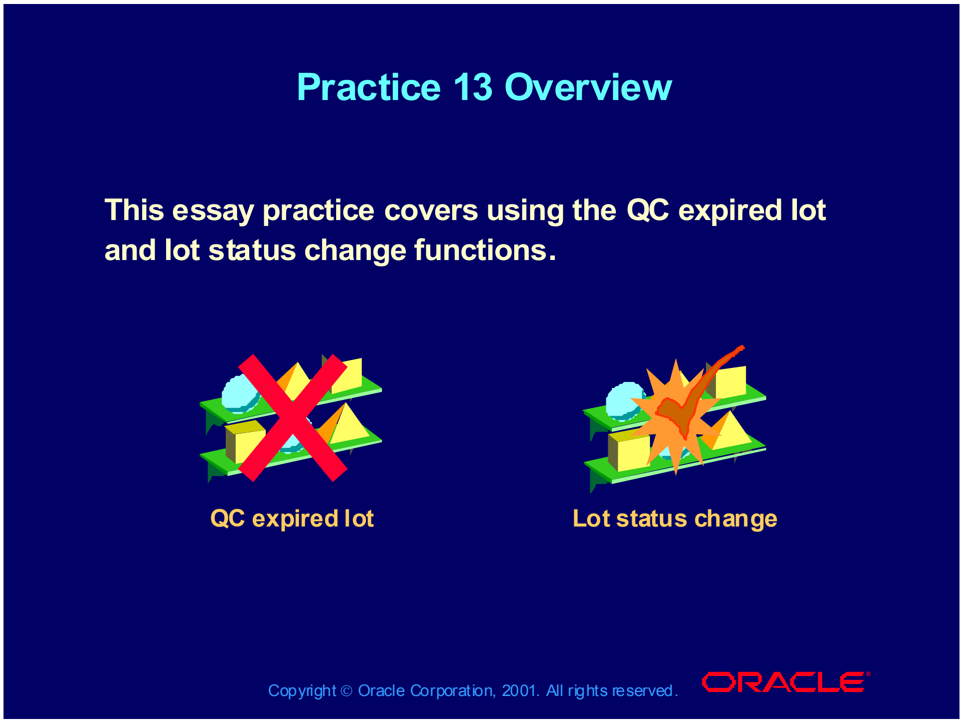
OPM Product Development Responsibility
Quality Control (N) Expired Lots

(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User’s Guide > Recording QC Results > Managing Expired Lots

… > Managing Expired Lots Procedure

… > Expired Lot Status Change Field References

Practice 13 Overview



Practice 13 Overview

This essay practice covers using the QC expired lot and lot status change functions.

QC expired lot
Lot status change

Practice 13

Using the Expired Lot Functionality

A paint manufacturer wants to devise an automated method for retesting and regrading finished goods inventory within a warehouse. Upon expiration of a particular lot, the paint may be brought back into inventory.

When the material is put back into inventory, it is tagged to notify warehouse personnel and customer service representatives that it should be sold as quickly as possible and picked before other available inventory.

Describe how the QC expired lot functionality might be used to automate the daily inventory evaluation of expired lots.

How would you suggest that the inventory be tagged in OPM to provide visibility to warehouse personnel and customer service representative of lots that should be allocated first?

Using Dual UOM

A dairy manufacturer of ice cream receives fresh milk from local dairies on a daily basis. The whole milk is received in gallons at the dock and automatically piped into storage vats.

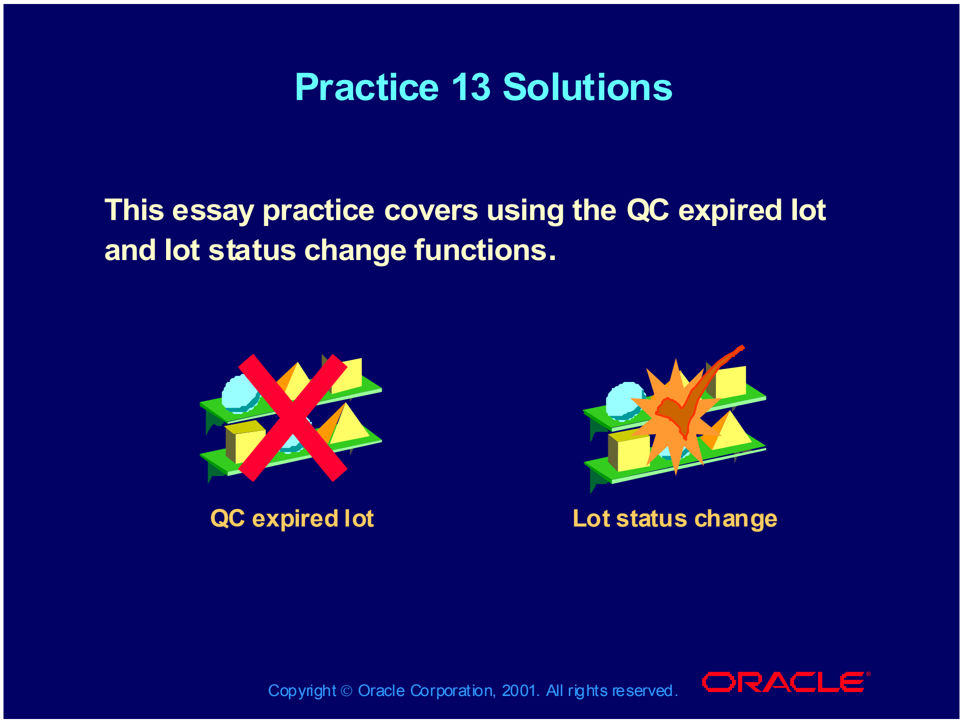
At the time of receipt from the local dairy, a QC sample is taken. The lab performs the necessary quality checks on the sample and determines the percent butterfat (%BF) received. Each lot of milk received has a different %BF to gallon relationship.

Production consumes the milk for ice cream products based on its percent butterfat. Production evaluates the %BF of individual lots as the method for formulation. For example, a base ice cream recipe calls for a certain number of gallons of whole milk at 26%BF. If individual lots of whole milk in inventory range from 20%BF to 35%BF, the production foreperson has to plan production to consume the appropriate combination of these lots to result in a 26%BF mixture.

During the presales demonstrations of OPM, the client is told it can define whole milk in dual units of measure to capture both gallons and %BF.

1. Understanding the need for lot-specific visibility of gallons and %BF, describe how the client should define the item whole milk with respect to dual UOM.
2. Suggest the process for receiving milk that will:
    - Enable warehouse personnel to immediately receive the milk lot into inventory without waiting for QC to first calculate the gallon to %BF ratio.
    - Place the milk on hold until QC testing is complete.
    - Enable QC to record the actual lot-specific %BF of the received gallons.
    - Enable QC to release the lot to production for use.
    - Enable QC to assign the actual grade to the lot of the milk received.

Practice 13 Solutions



Practice 13 Solutions

This essay practice covers using the QC expired lot and lot status change functions.

QC expired lot

Lot status change

Practice 13 Solutions

Using the Expired Lot Functionality

1. By running the QC Expired Lots process for all items in a warehouse, you can automatically perform a status change of the expired lots to a Retest status without having to individually analyze each lot and perform a separate status change transaction for each.
2. A special grade code or lot status code can be assigned to the material so that you can identify it in an inventory item query. For customer service representatives, the grade code may be preferable since the inventory summary does not display lot status information.

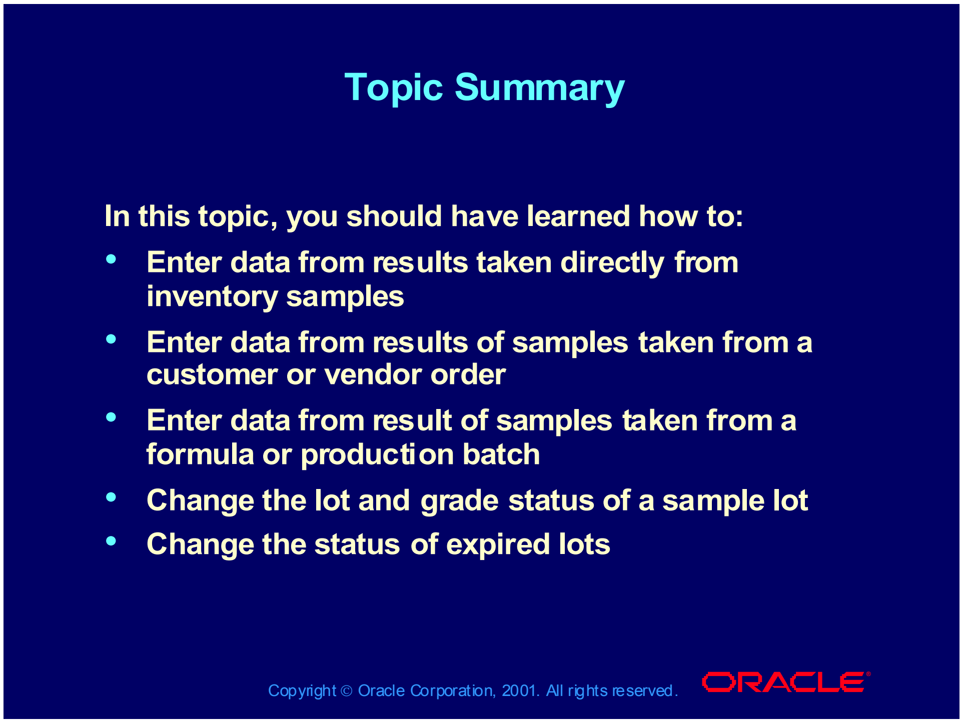
Using Dual UOM

1. Define the item as follows:
   - Dual UOM: `2`
   - UOM1: `GAL` (Gallons)
   - UOM2:`%BF` (percent butterfat). Also, define the item specific conversion as a reasonable default, such as 1 GAL = .2%BF.

   The item could also be defined as Dual UOM 3, but the first option provides a default conversion to be displayed on screens during receiving, which can be beneficial.
2. The process for receiving milk is as follows:

- Using the default conversion factor for GAL and %BF (or the %BF as stated on the bill of lading, if available), the milk can be received. QC can modify the conversion after testing is complete.
- The default lot status TEST should be entered in the Inventory Items window so that, upon receipt, each new lot of milk is placed on TEST status. TEST would make the lot unavailable for production.
- When QC determines the actual %BF, an adjustment to the existing lot quantity can be made to either the GL quantity or the %BF quantity to result in the appropriate amount.
- Once testing is complete, QC must perform a status change to transfer the lot from TEST status to a RELEASED status code (defined such that material is available for production).
- QC can perform a grade change transaction to change the lot (if necessary) from its default received grade to the actual grade.

Topic Summary



Topic Summary

In this topic, you should have learned how to:

- Enter data from results taken directly from inventory samples
- Enter data from results of samples taken from a customer or vendor order
- Enter data from result of samples taken from a formula or production batch
- Change the lot and grade status of a sample lot
- Change the status of expired lots

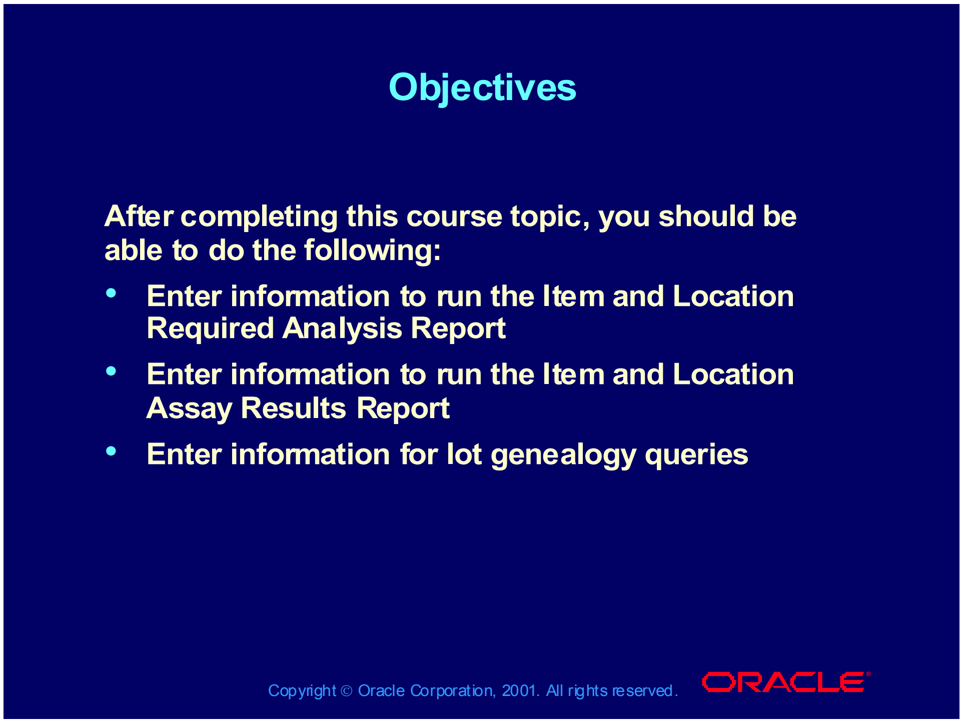
Agenda

Agenda

- Establishing OPM Quality Parameters
- Managing Quality Control Sampling
- Recording Quality Control Results
- **Executing Quality Management Reports and Inquiries**
- Describing Quality Sample Workflow

Oracle Process Manufacturing
Quality Management

Objectives

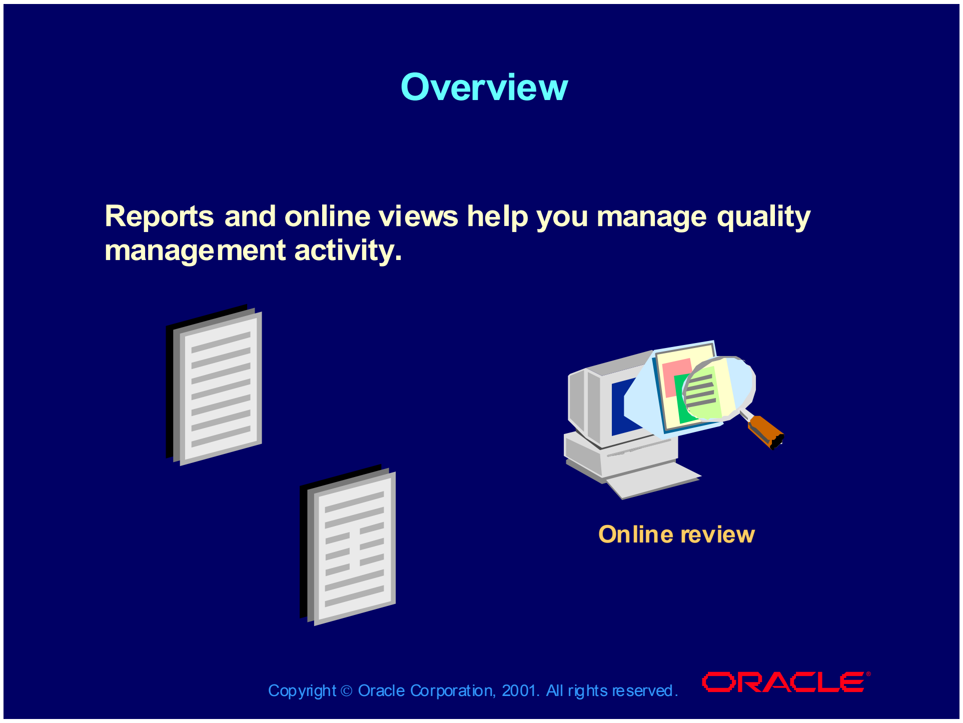


Objectives

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

- Enter information to run the Item and Location Required Analysis Report
- Enter information to run the Item and Location Assay Results Report
- Enter information for lot genealogy queries

Overview

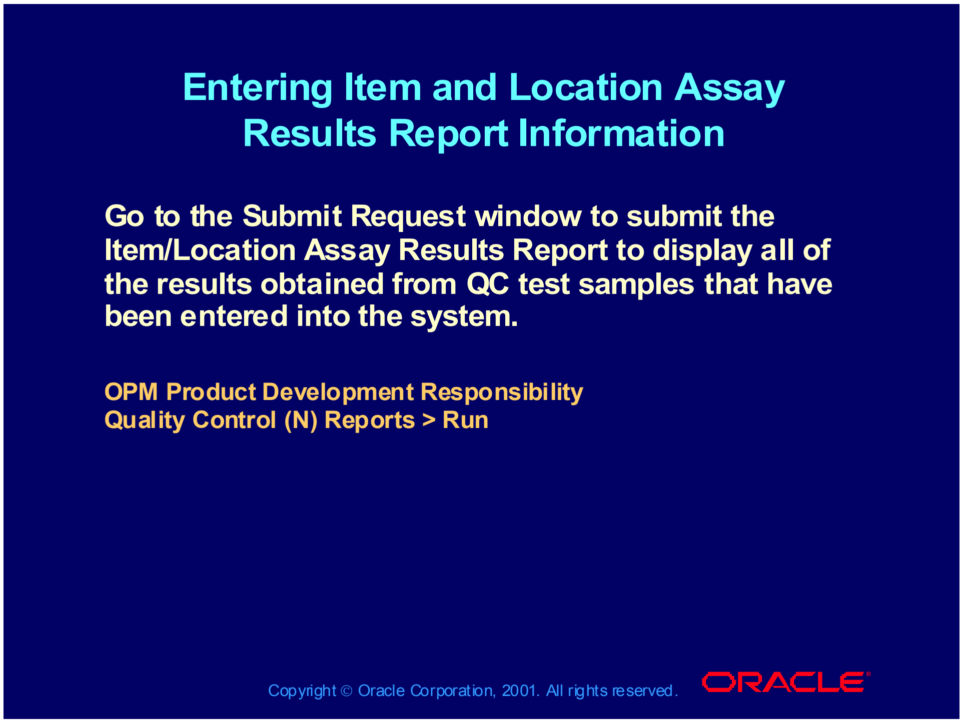


Overview

Reports and online views help you manage quality management activity.

Online review

Entering Item and Location Assay Results Report Information



Entering Item and Location Assay Results Report Information

Go to the Submit Request window to submit the Item/Location Assay Results Report to display all of the results obtained from QC test samples that have been entered into the system.

OPM Product Development Responsibility
Quality Control (N) Reports > Run

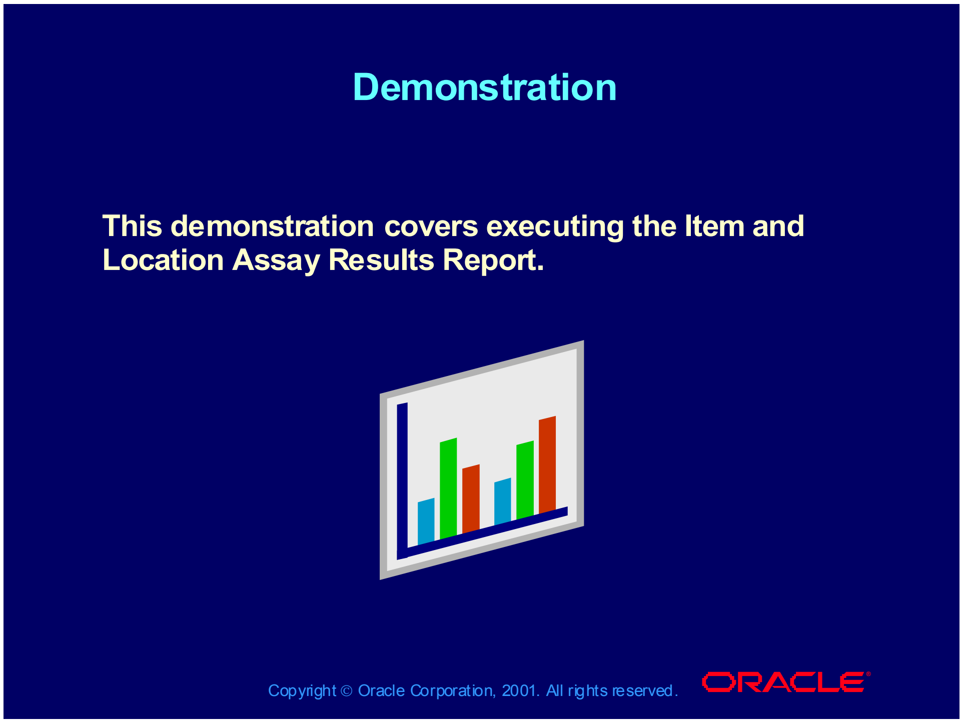
(Help) Oracle Manufacturing Applications > Oracle Process Applications > OPM Product Development > OPM Quality Management User’s Guide > QC Reporting > Running the Item / Location Assay Results Report

… > Submitting the Report

… > Selected Report Parameters

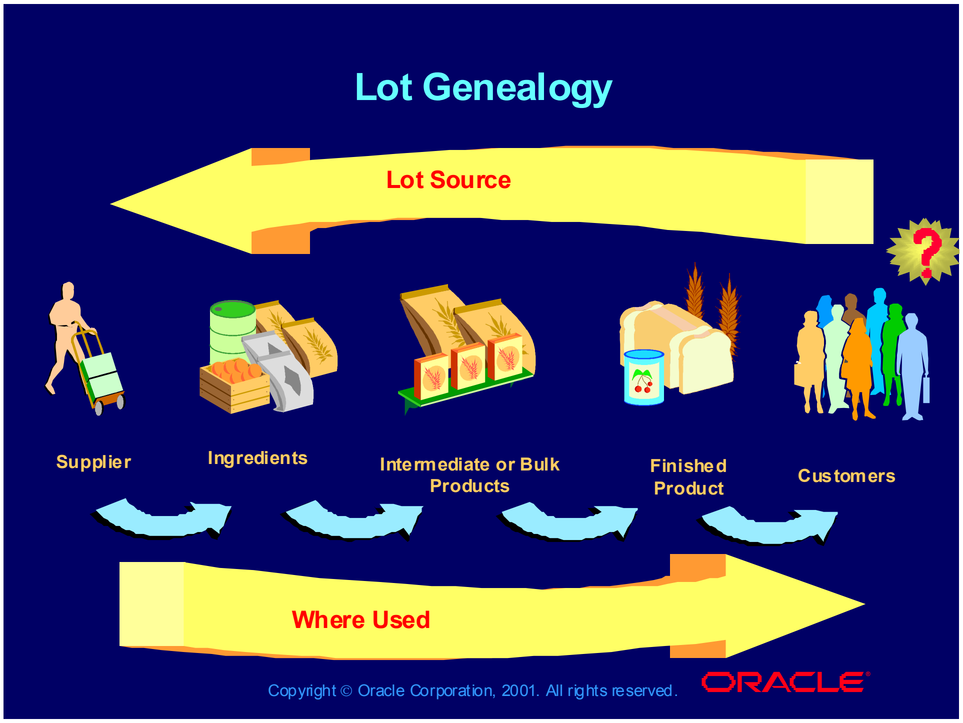
… > Item/Location Assay Results Report Description

Demonstration



Demonstration

This demonstration covers executing the Item and Location Assay Results Report.


Lot Genealogy
Lot Source
Supplier
Ingredients
Intermediate or Bulk Products
Finished Product
Customers
Where Used
Copyright © Oracle Corporation, 2001. All rights reserved.
ORACLE

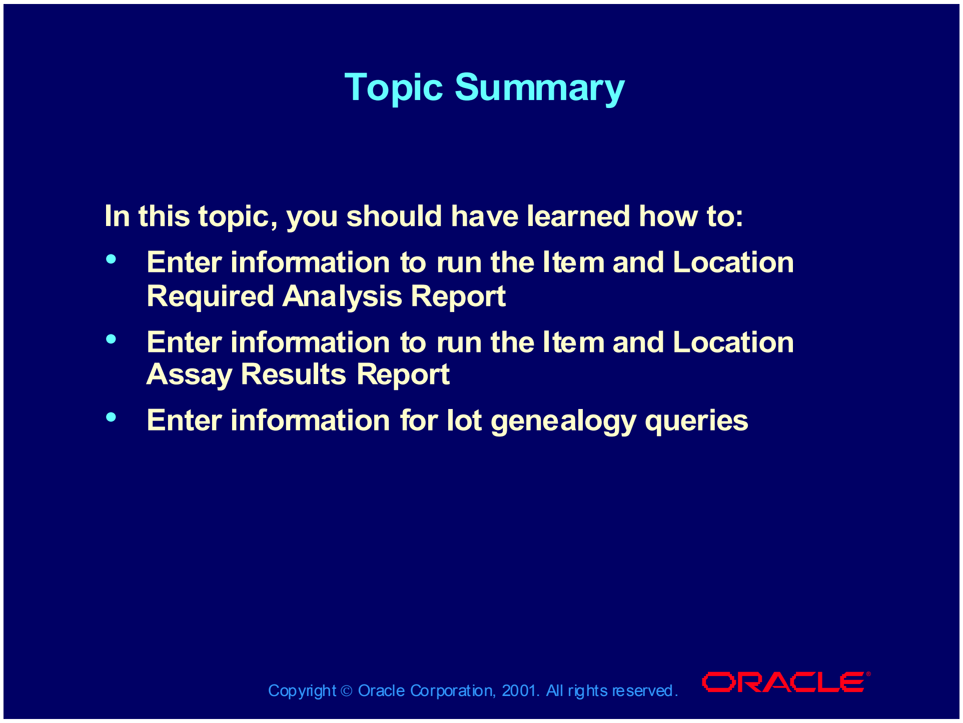
Lot Genealogy

The manufacturing process begins with the supplier who provides the raw materials needed for production. The production process creates intermediate, bulk, and eventually finished products which are then sold to customers.

When the customer experiences a problem with the quality of the finished product, the ingredients that were used in the intermediate, bulk, and finished product are determined through the Lot Source inquiry.

The Where Used Inquiry is performed to determine the products in which the lot was used.

Topic Summary

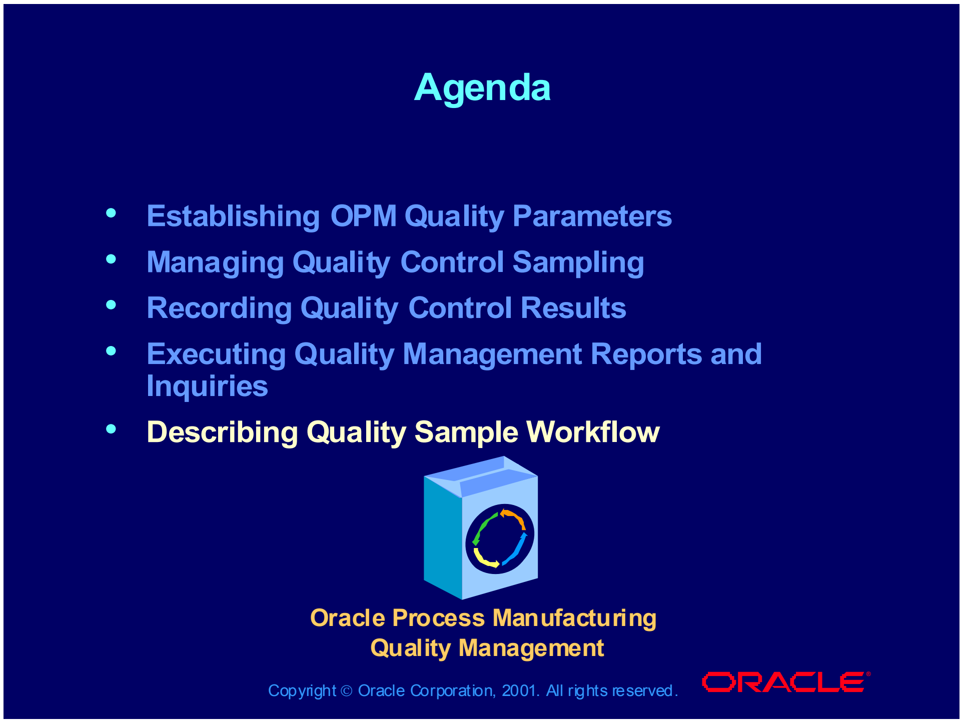


Topic Summary

In this topic, you should have learned how to:

- Enter information to run the Item and Location Required Analysis Report
- Enter information to run the Item and Location Assay Results Report
- Enter information for lot genealogy queries

Agenda

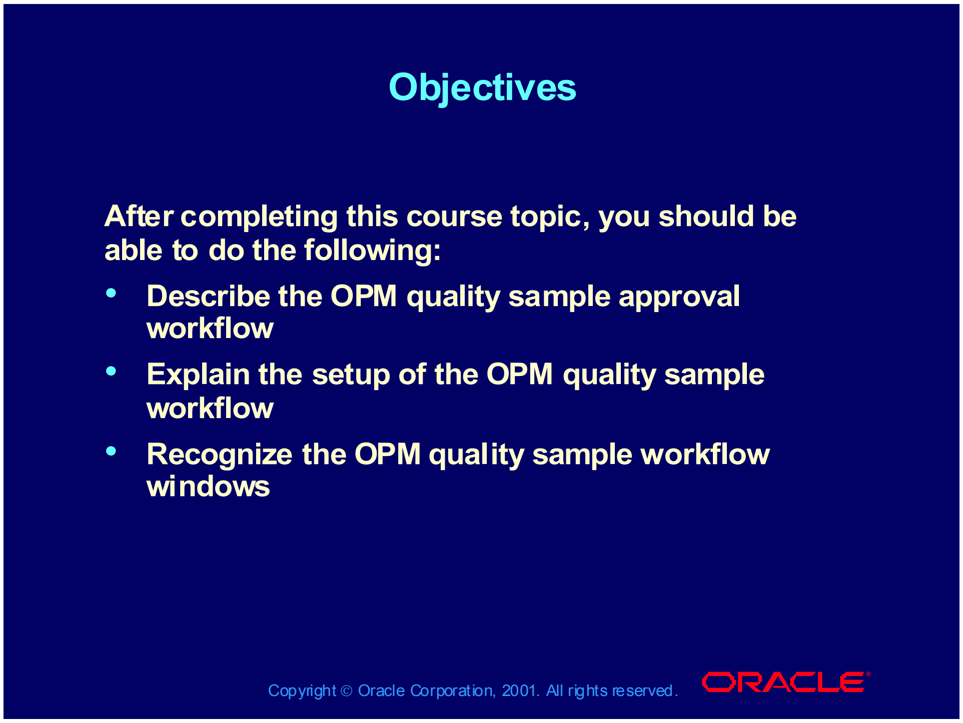


Agenda

- Establishing OPM Quality Parameters
- Managing Quality Control Sampling
- Recording Quality Control Results
- Executing Quality Management Reports and Inquiries
- Describing Quality Sample Workflow

Oracle Process Manufacturing
Quality Management

Objectives

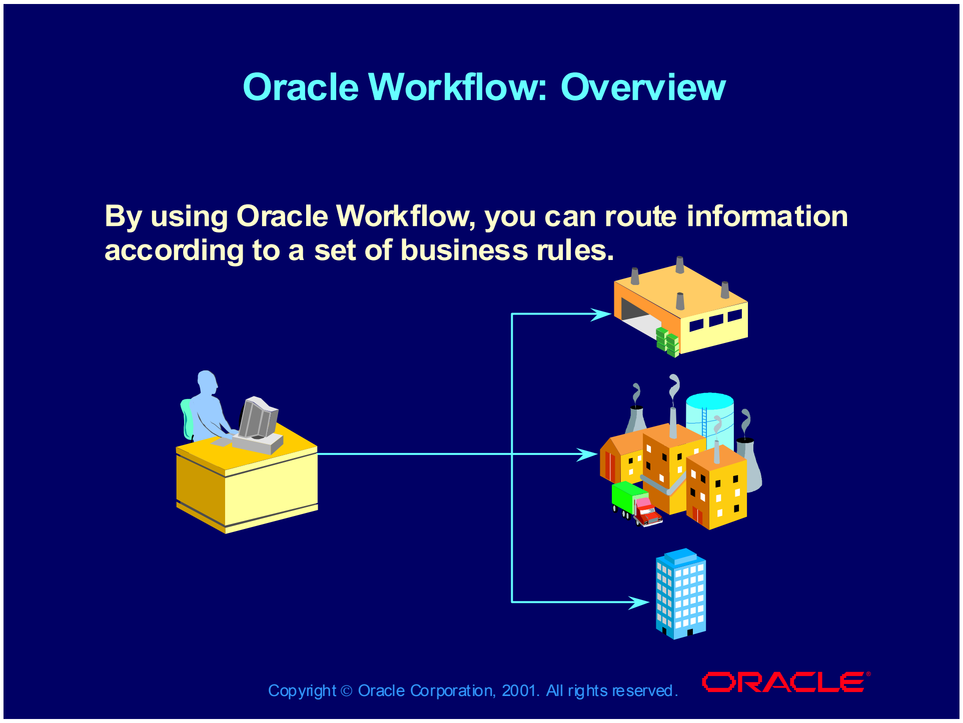


Objectives

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

- Describe the OPM quality sample approval workflow
- Explain the setup of the OPM quality sample workflow
- Recognize the OPM quality sample workflow windows

Oracle Workflow: Overview



Oracle Workflow: Overview

By using Oracle Workflow, you can route information according to a set of business rules.

Oracle Workflow: Overview

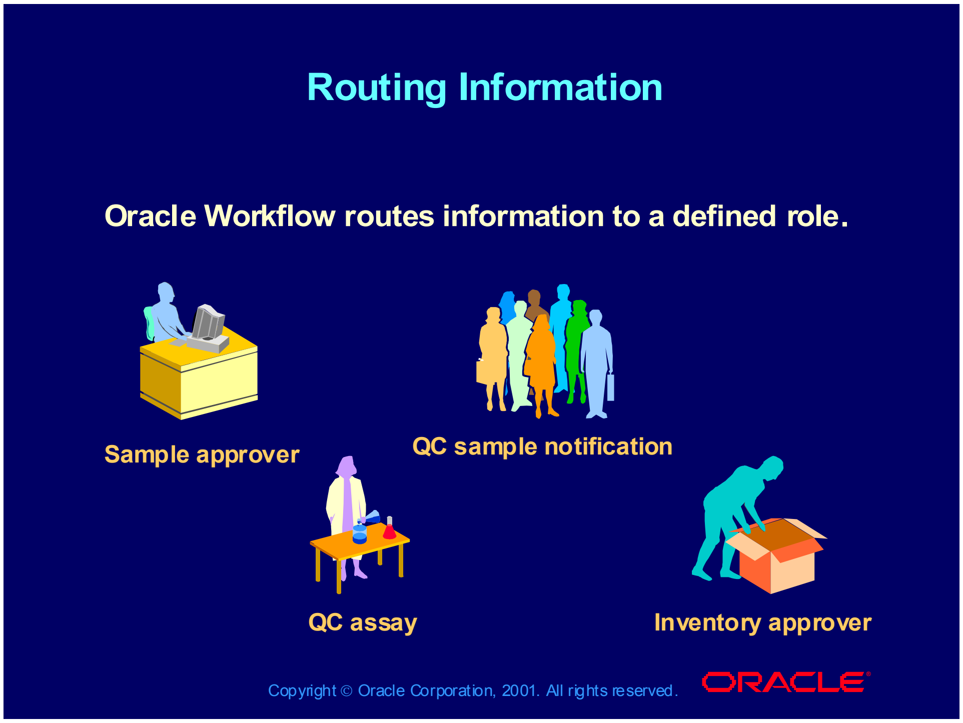
Workflow Processes Description

A workflow is a process containing several steps that include activities, roles, and decisions that are needed to complete a business process.

Oracle Workflow lets you automate and continuously improve business processes by routing information according to a set of business rules. This information can be transmitted to individuals both inside and outside your enterprise on a need-to-know basis.

With Oracle Workflow, people receive notifications of items awaiting their attention through electronic mail using a Web browser or using the Notification Summary window in Oracle Applications.

Routing Information



Routing Information

Oracle Workflow routes information to a defined role.

Sample approver

QC sample notification

QC assay

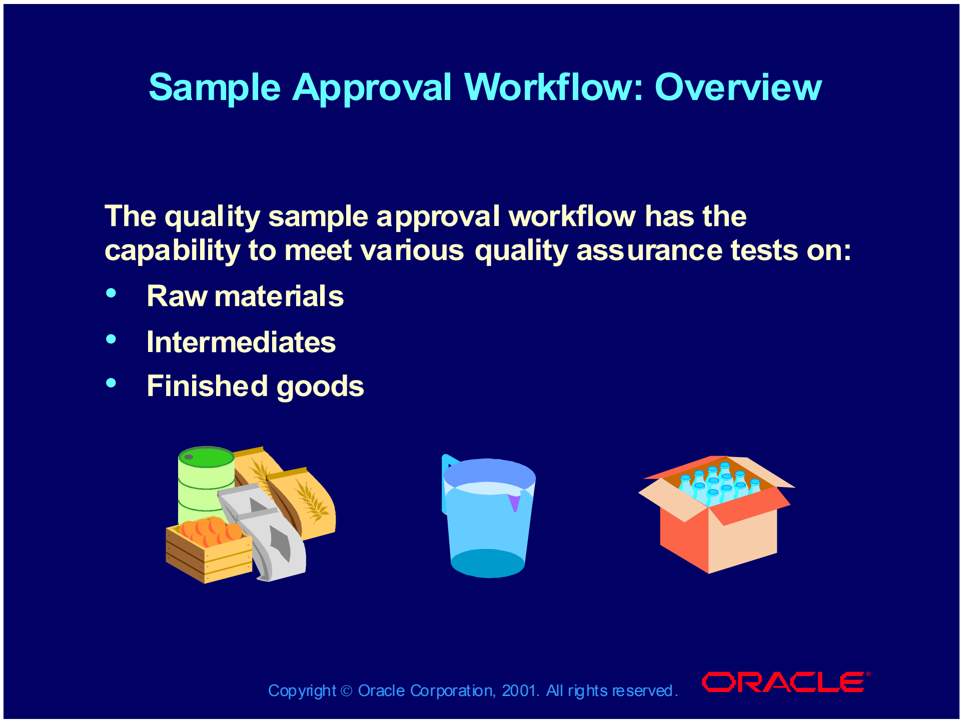
Inventory approver

Routing Information

Role Description

Oracle Workflow routes information to a role. A role can be an individual user or a group of users. Any user associated with a defined role can act on the notification. Each notification includes a message associated with all the information a user needs to make a decision. Some possible responses are also included. Oracle Workflow interprets each response and moves on to the next workflow activity.

Sample Approval Workflow: Overview



Sample Approval Workflow: Overview

The quality sample approval workflow has the capability to meet various quality assurance tests on:

- Raw materials
- Intermediates
- Finished goods

Sample Approval Workflow: Overview

OPM Quality Sample Workflow Capability

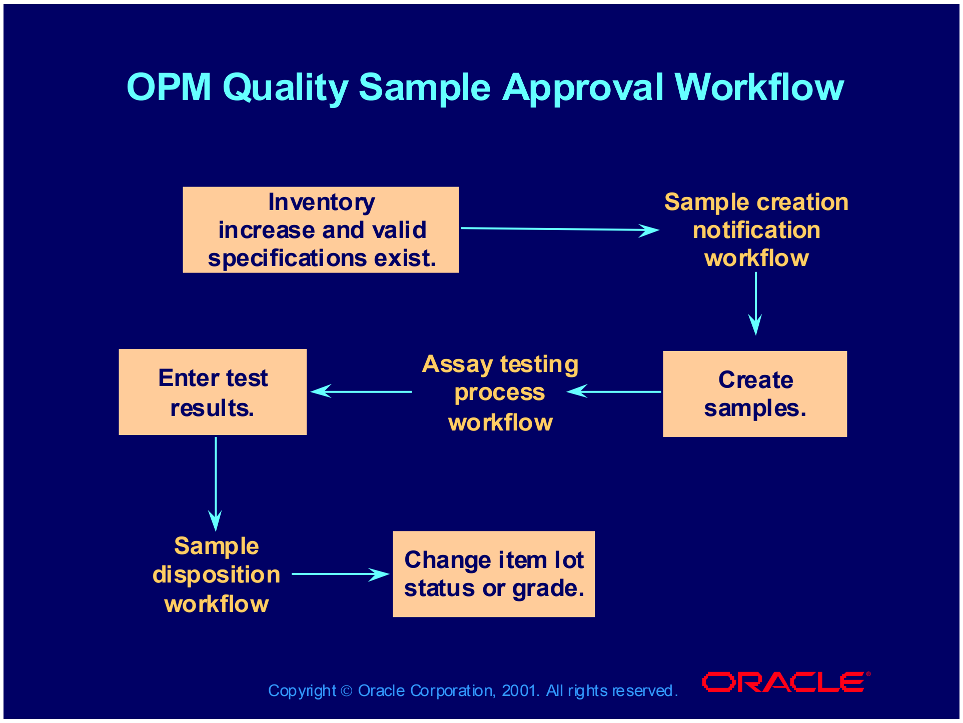
The OPM quality sample workflow has the capability to meet various quality assurance tests on:

- Raw materials
- Intermediates
- Finished goods

These tests can be viewed at any stage during the purchasing, production, or sales cycle. You can set up specifications, draw samples, and enter the results of the tests at the following levels:

- Item or lot
- Production
- Customer or vendor

OPM Quality Sample Approval Workflow



OPM Quality Sample Approval Workflow

Inventory increase and valid specifications exist.

Sample creation notification workflow

Create samples.

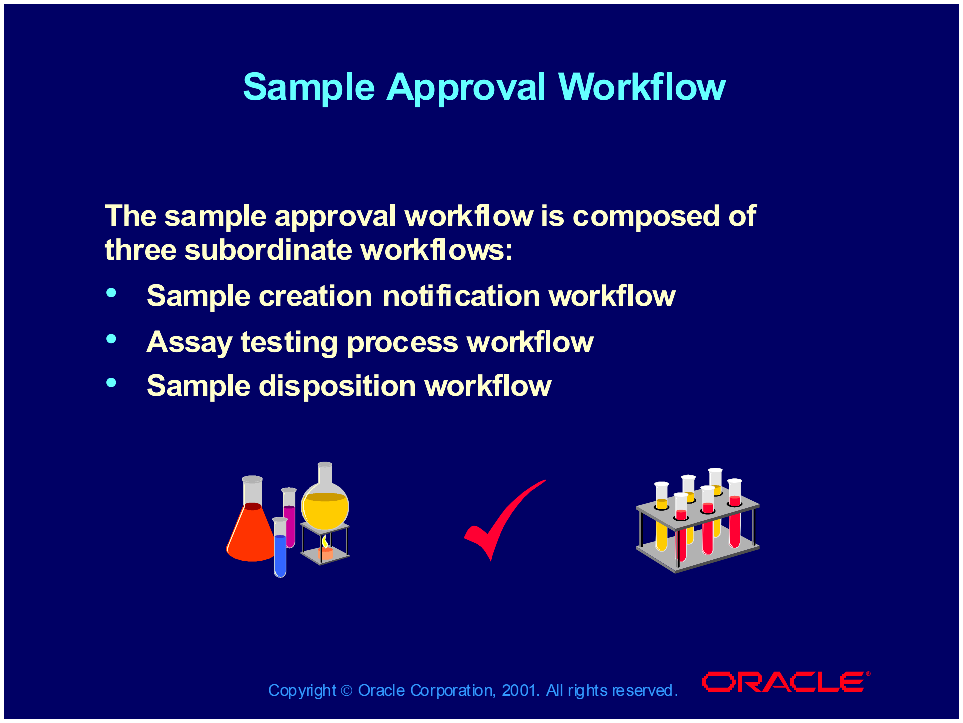
Assay testing process workflow

Enter test results.

Sample disposition workflow

Change item lot status or grade.

Sample Approval Workflow



Sample Approval Workflow

The sample approval workflow is composed of three subordinate workflows:

- Sample creation notification workflow
- Assay testing process workflow
- Sample disposition workflow

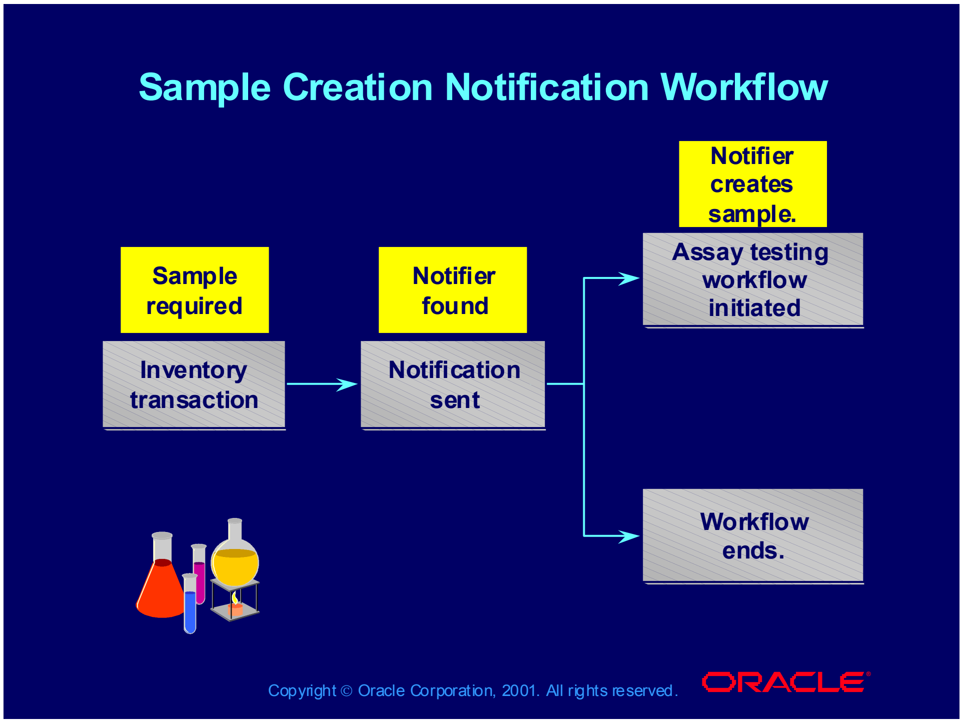
Sample Approval Workflow

OPM Quality Sample Subordinate Workflows

The OPM quality sample workflow consists of three subordinate workflows:

- Sample creation notification workflow: This workflow sends a notification and initiates the sample approval process workflow.
- Sample approval process workflow: This workflow is used to find assay specifications, initiate the assay testing process workflow, and send inventory status notification.
- Assay testing process workflow: This workflow is used to update assay status and accumulate assay results for the sample approval process workflow.

Sample Creation Notification Workflow



Sample Creation Notification Workflow

Sample required

Inventory transaction

Notifier found

Notification sent

Notifier creates sample.

Assay testing workflow initiated

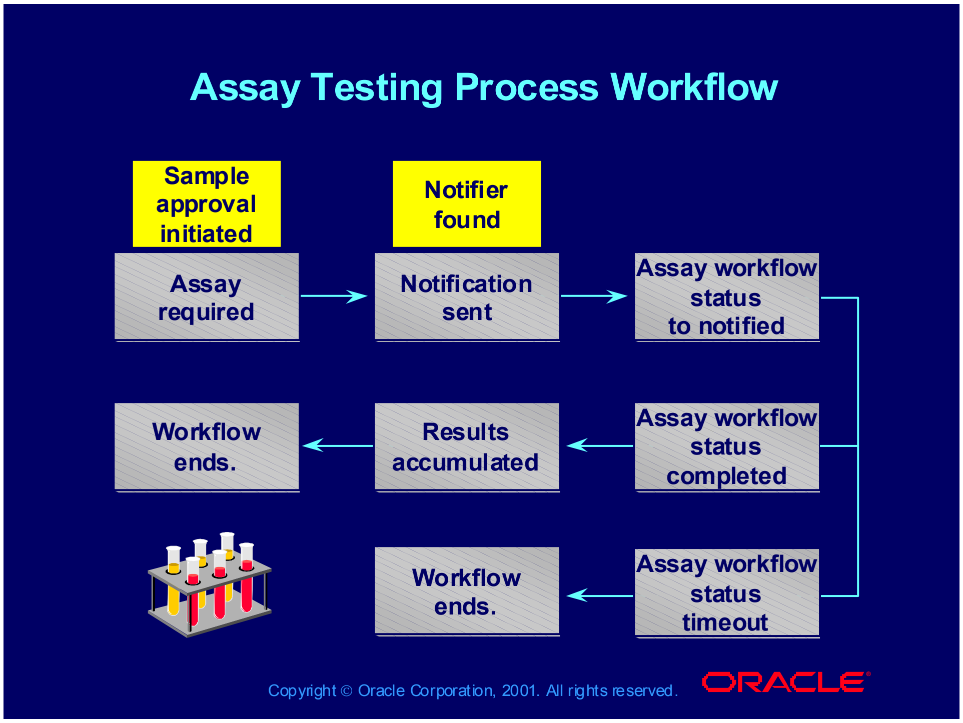
Workflow ends.

Sample Creation Notification Workflow

The sample creation notification workflow process consists of the following steps:

- The workflow begins when OPM transacts inventory requiring an assay.
- The notifier is found and notification is sent.
- The sample approval workflow is initiated if the notifier creates a sample from the notification or creates a sample independent of the workflow.
- The workflow ends.

Assay Testing Process Workflow



Assay Testing Process Workflow

Sample approval initiated

Notifier found

Assay required → **Notification sent** → **Assay workflow status to notified**

Assay workflow status completed → **Results accumulated** → **Workflow ends.**

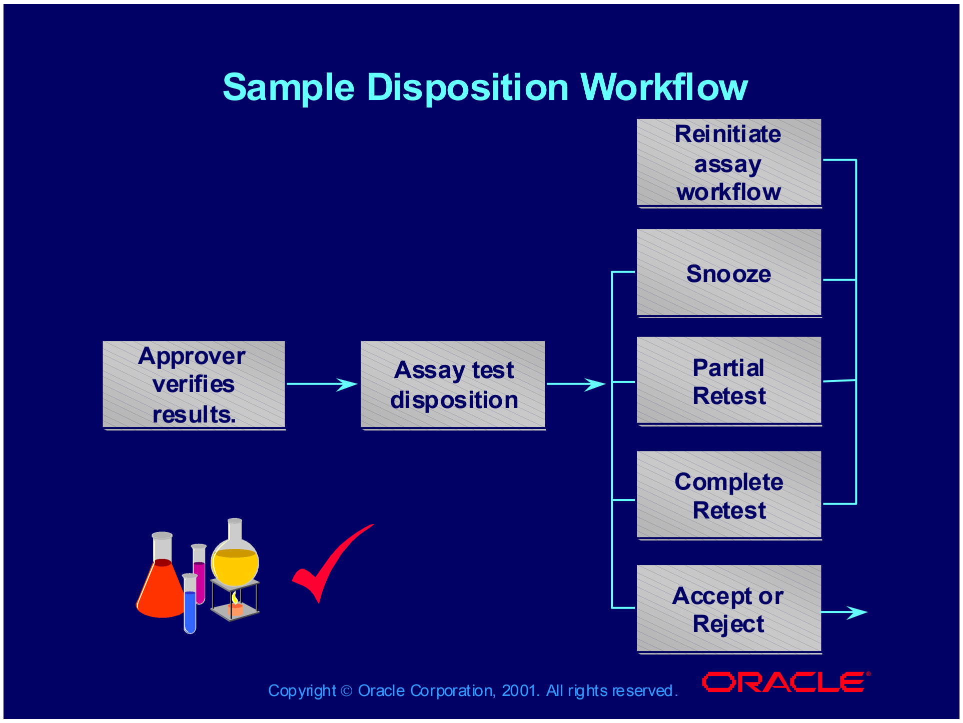
Assay workflow status timeout → **Workflow ends.**

Assay Testing Process Workflow

The assay testing process workflow consists of the following steps:

- The workflow starts when an assay is required for new material. It is initiated from the sample approval process workflow.
- The notifier is found and notification is sent.
- The status of the assay is updated to Notified.
- When the assay is completed, the assay status is updated to Completed; otherwise the status is Time Out.
- Assay results are accumulated for the sample approval process workflow.
- The workflow ends.

Sample Disposition Workflow



Sample Disposition Workflow

Reinitiate assay workflow

Snooze

Partial Retest

Complete Retest

Accept or Reject

Approver verifies results.

Assay test disposition

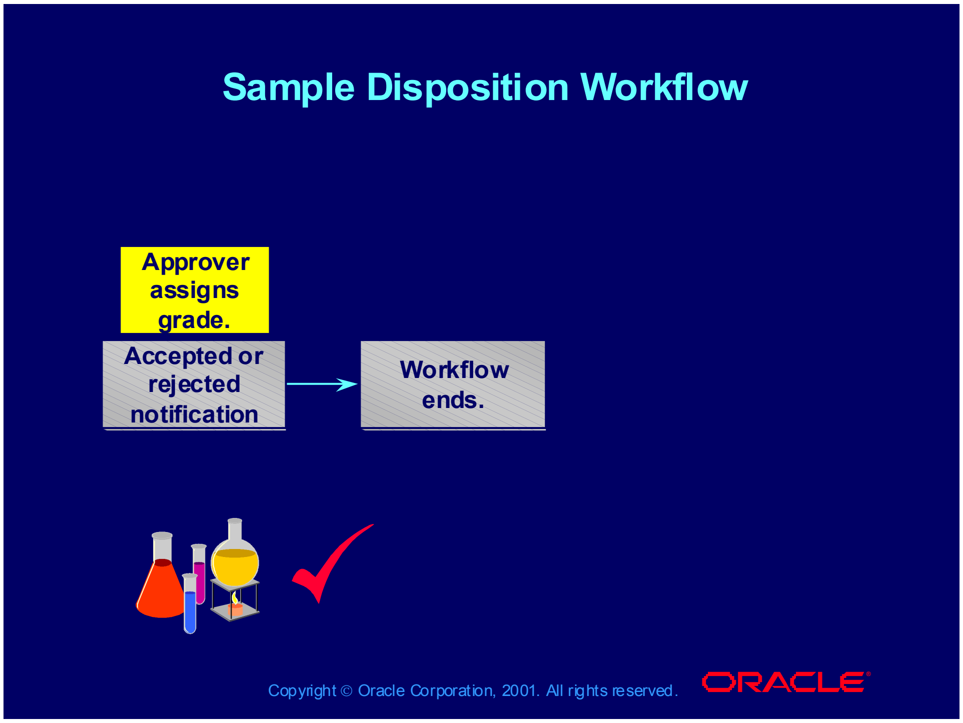
Sample Disposition Workflow

The sample approver can open the Sample Results window to verify the assay results.

The workflow continually checks assay test disposition as follows:

- If Snooze is detected, the workflow initiates the assay testing process workflow for timed-out assays and repeats steps 2 through 4.
- If Partial Retest is detected, the workflow initiates the assay testing process workflow for selected assays and repeats steps 2 through 4.
- If Complete Retest is detected, the workflow initiates the assay testing process workflow for all assays and repeats steps 2 through 4.
- If Accept or Reject is detected, the workflow proceeds to step 3.

Sample Disposition Workflow



Sample Disposition Workflow

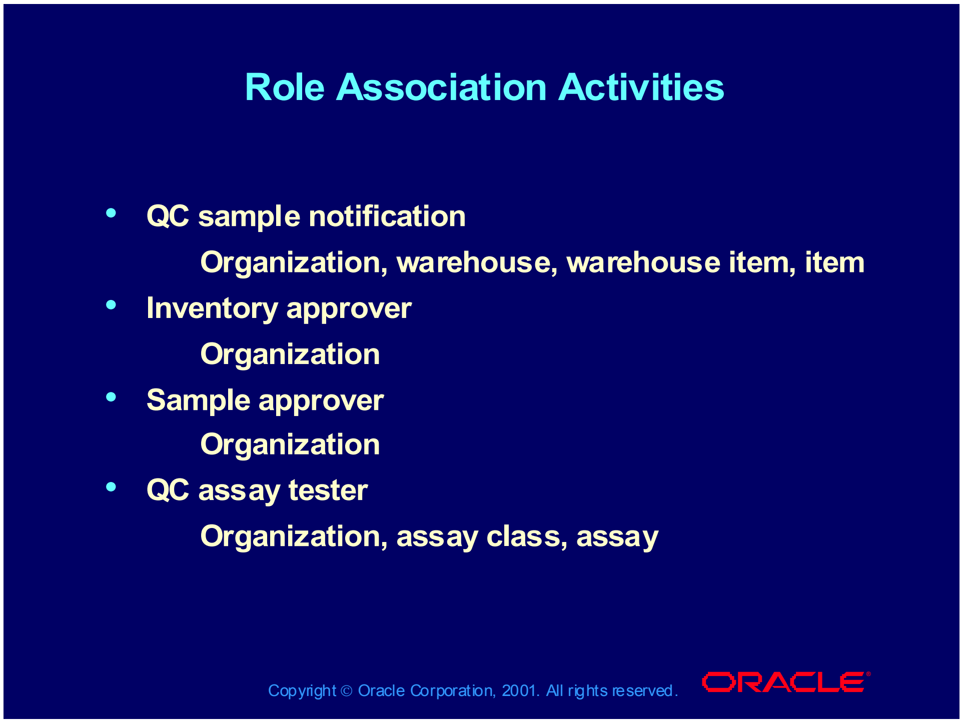
Approver assigns grade.

Accepted or rejected notification → **Workflow ends.**

Sample Disposition Workflow (continued)

- The workflow finds the inventory approver and sends notification to this user that the inventory has been accepted or rejected. The inventory approver can open the Quantities window (in the Inventory application) to assign a grade to the material tested.
- The workflow ends.

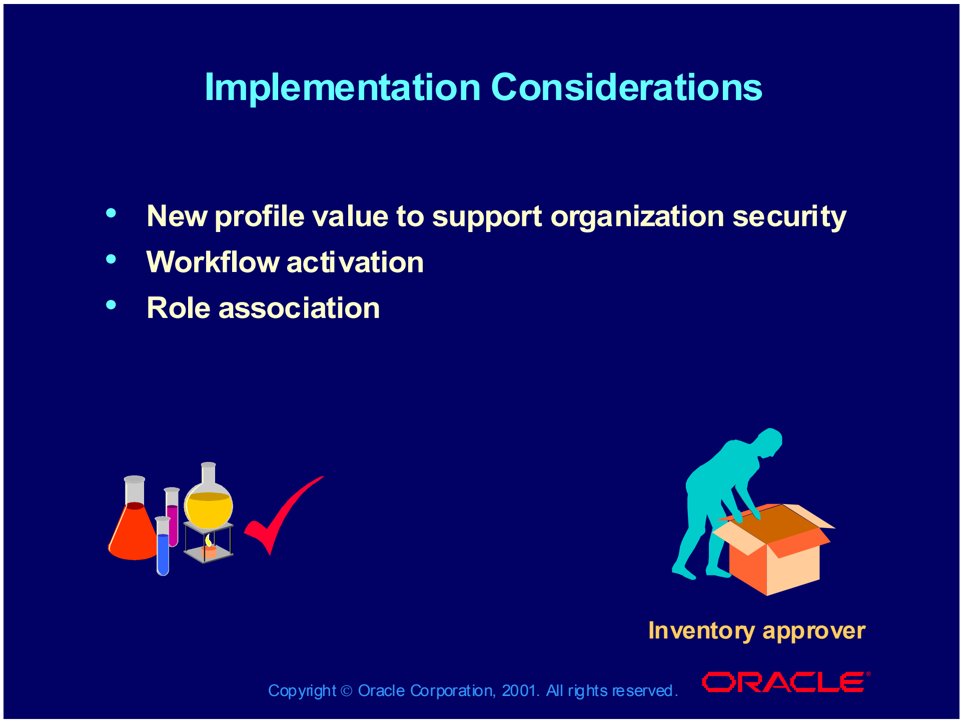
Role Association Activities



Role Association Activities

- QC sample notification
  - Organization, warehouse, warehouse item, item
- Inventory approver
  - Organization
- Sample approver
  - Organization
- QC assay tester
  - Organization, assay class, assay

Implementation Considerations

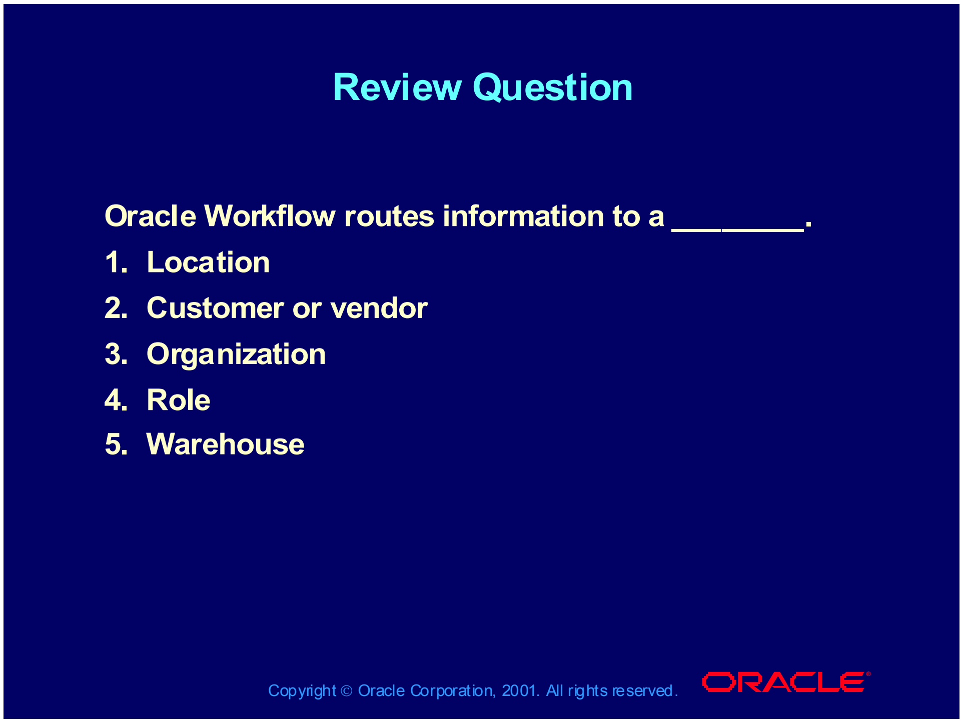


Implementation Considerations

- New profile value to support organization security
- Workflow activation
- Role association

Inventory approver

Review Question

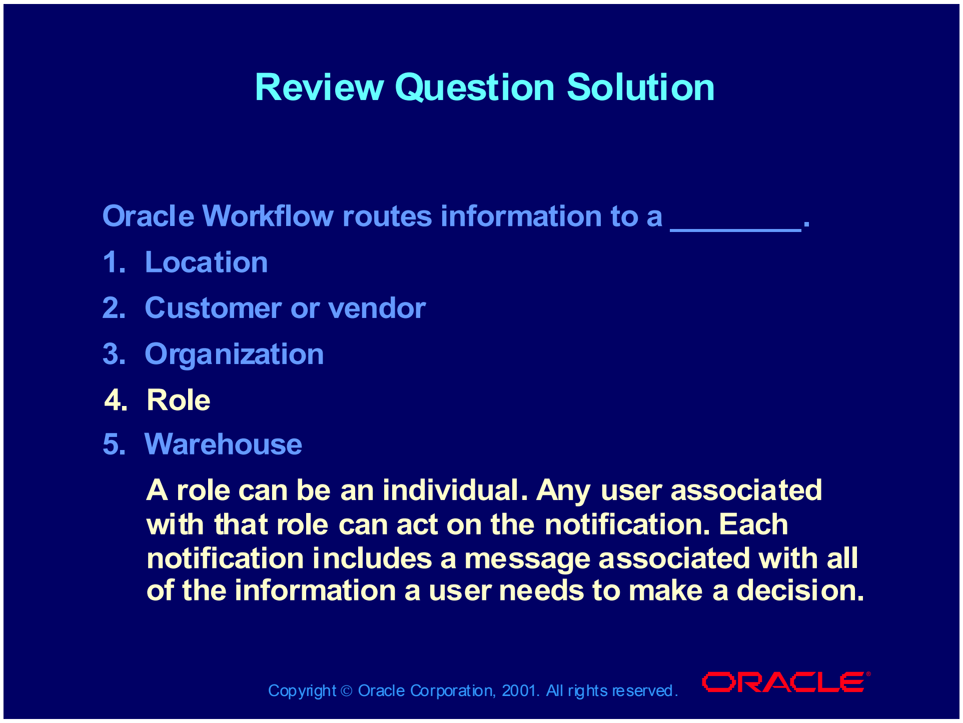


Review Question

Oracle Workflow routes information to a ________.

1. Location
2. Customer or vendor
3. Organization
4. Role
5. Warehouse

Review Question Solution

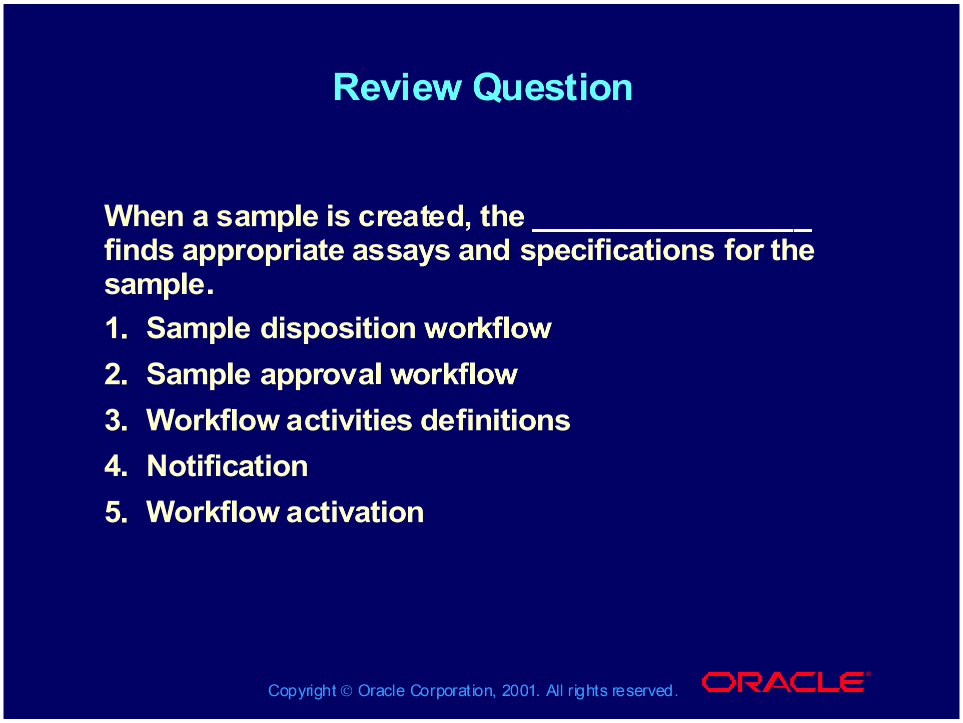


Review Question Solution

Oracle Workflow routes information to a ________.

1. Location
2. Customer or vendor
3. Organization
4. **Role**
5. Warehouse

A role can be an individual. Any user associated with that role can act on the notification. Each notification includes a message associated with all of the information a user needs to make a decision.

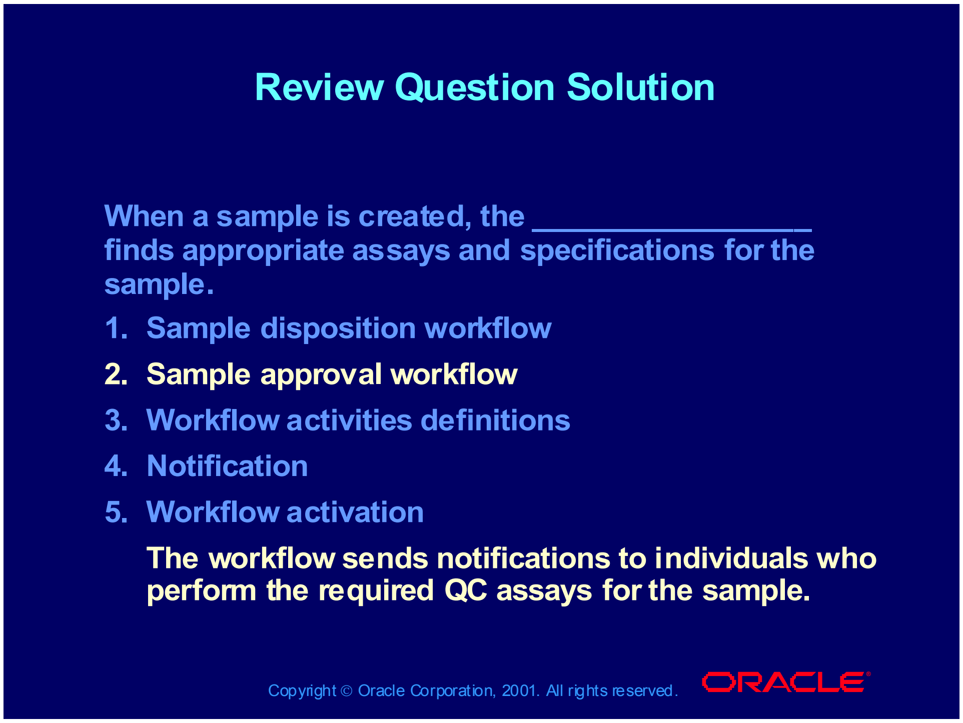


Review Question

When a sample is created, the _________________ finds appropriate assays and specifications for the sample.

1. Sample disposition workflow
2. Sample approval workflow
3. Workflow activities definitions
4. Notification
5. Workflow activation

Review Question Solution



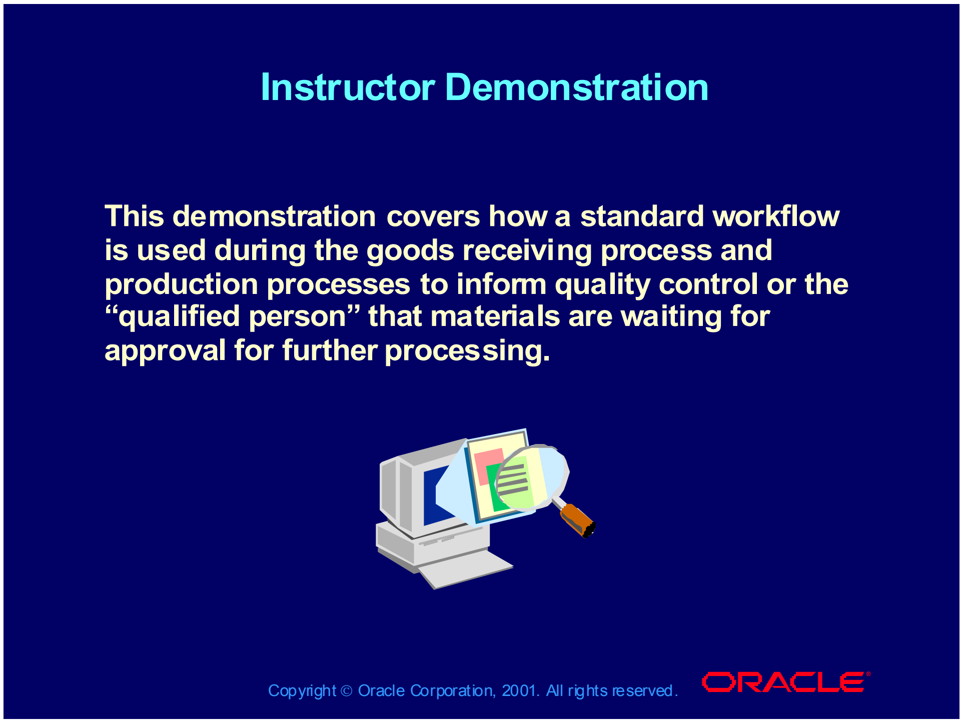
Review Question Solution

When a sample is created, the ________________ finds appropriate assays and specifications for the sample.

1. Sample disposition workflow
2. Sample approval workflow
3. Workflow activities definitions
4. Notification
5. Workflow activation

The workflow sends notifications to individuals who perform the required QC assays for the sample.

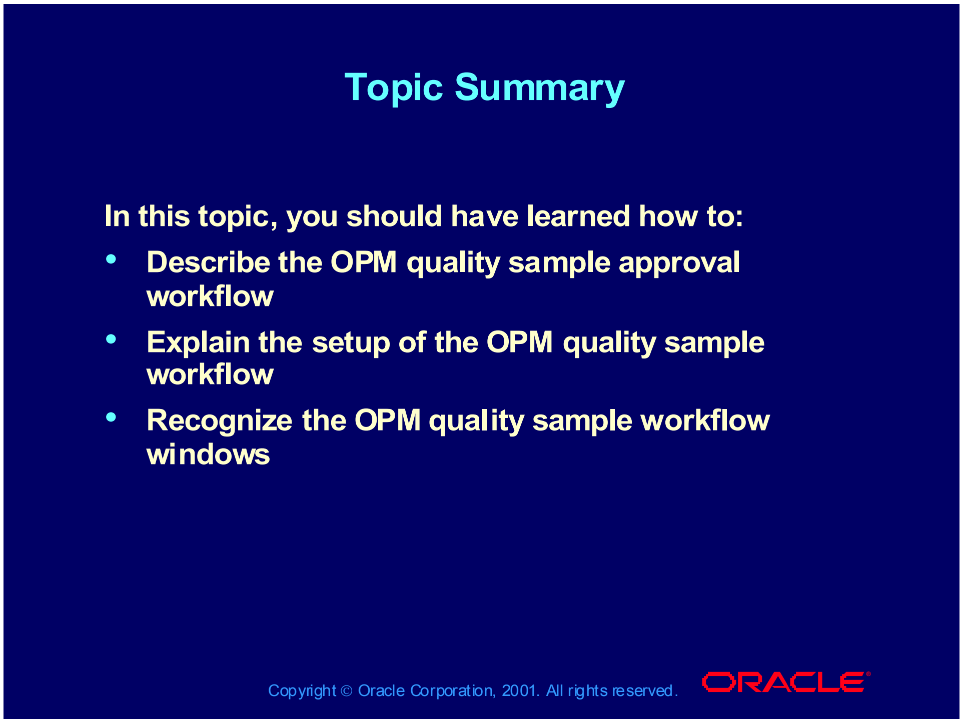
Instructor Demonstration



Instructor Demonstration

This demonstration covers how a standard workflow is used during the goods receiving process and production processes to inform quality control or the “qualified person” that materials are waiting for approval for further processing.

Topic Summary

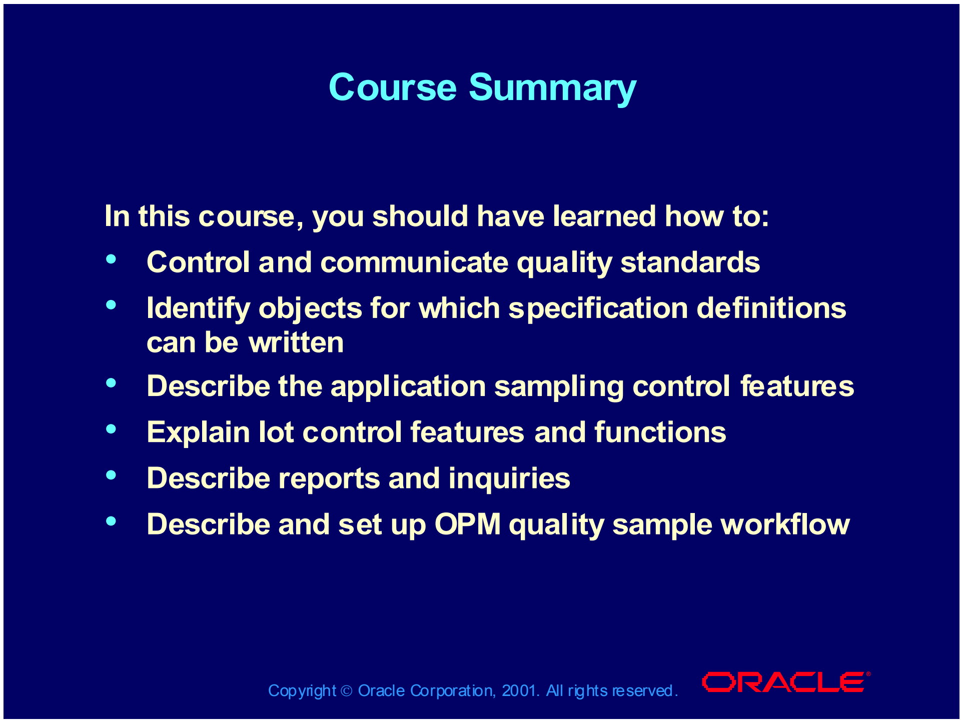


Topic Summary

In this topic, you should have learned how to:

- Describe the OPM quality sample approval workflow
- Explain the setup of the OPM quality sample workflow
- Recognize the OPM quality sample workflow windows

Course Summary



Course Summary

In this course, you should have learned how to:

- Control and communicate quality standards
- Identify objects for which specification definitions can be written
- Describe the application sampling control features
- Explain lot control features and functions
- Describe reports and inquiries
- Describe and set up OPM quality sample workflow