R11i System Administration

Student Guide

Course Code	14465GC11
Edition	1.1
Month	September 2000
Part Number	M0-12958

ORACLE

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This book was published using:

Oracle® Tutor™

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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 within Oracle Applications
- Working experience with at least one Oracle Applications module

Prerequisites

- *R11i Navigate Oracle Applications*

How This Course Is Organized

R11i System Administration 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 Applications System Administrator's Guide Release 11i	A75396-01
Oracle Applications User's Guide Release 11i	A75394-01

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.

Introduction to System Administration

Chapter 1

Notations:

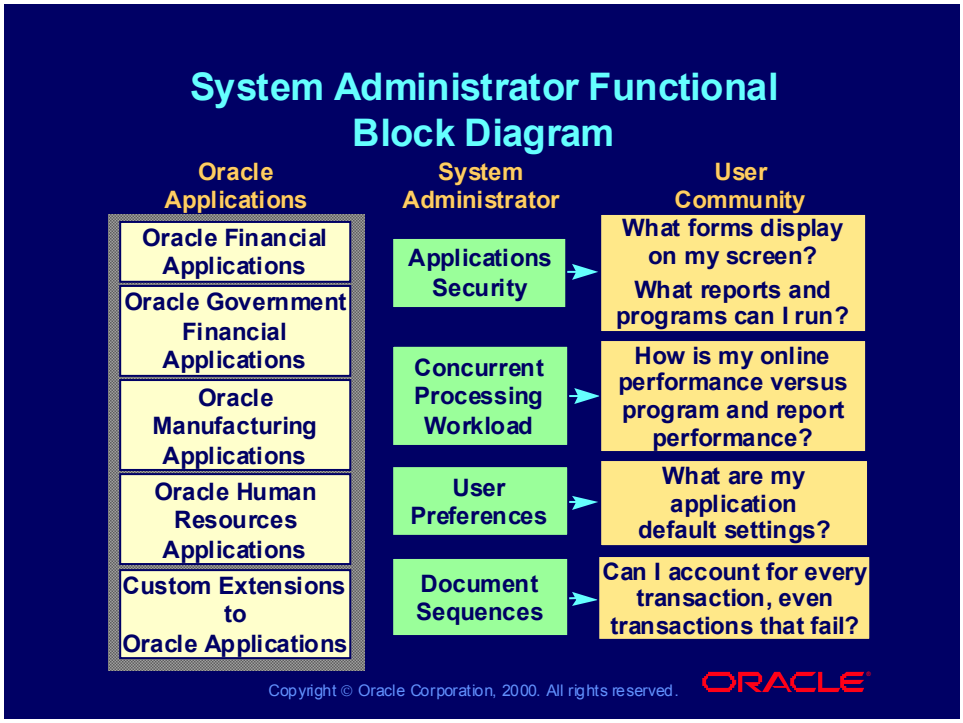
(N) = Navigator
(T) = Tab
(I) = Icon
(H) = Hyperlink
(B) = Button
(Help) = Oracle Applications Help System

Introduction to Course Topics

This course discusses how to perform administrative tasks in an Oracle Applications systems environment. You will learn to manage security by granting users access and defining their application privileges, to administer concurrent managers, to set profile options, and to register a custom application. You will also learn to audit users and system processing, manage printers, administer folders, and perform other applications DBA duties.

Course Objectives

System Administrator Functional Block Diagram



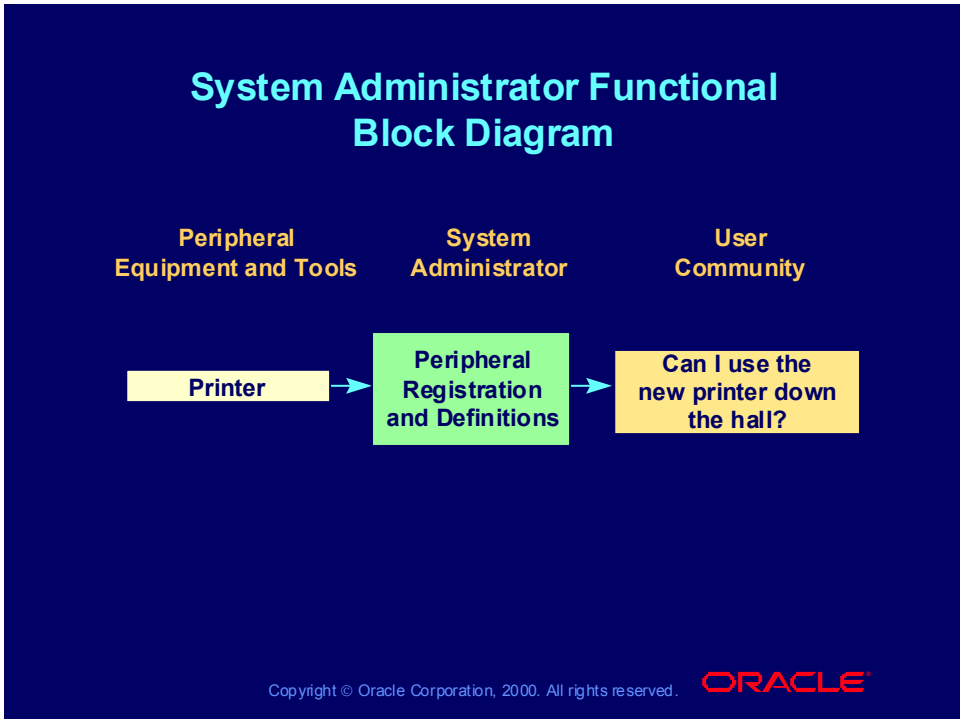
Importance of This Course

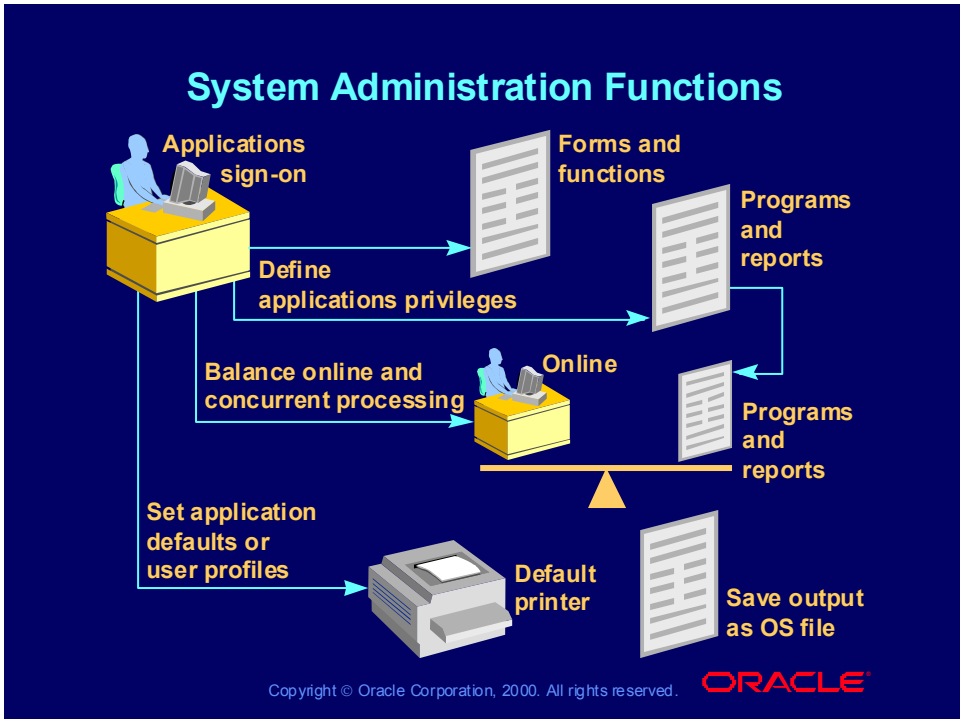
System administrators are responsible to a user community that requires that Oracle Applications be configured appropriately for application end users. Typical demands of an applications user community are:

- Matching job descriptions to applications functionality
- Knowing the status of submitted (concurrent) reports and programs
- Choosing printers and defining print styles and printer drivers
- Changing an application's default behavior
- Using document sequences to track documents generated by forms transactions
- Creating customized menu prompts and descriptions

This course discusses how to meet these ongoing and changing needs in your user community. You will learn how to adapt the applications usage for your users over time.

System Administrator Functional Block Diagram





System Administration Functions

You can increase Oracle Applications benefits to your users by configuring them to meet the needs of your company's organizational structure, equipment, and applications usage.

Database Administrator Versus System Administrator

A database management system can be seen as having two sides to it—a front end that the user sees and works with and a back end where the actual work or data manipulation is performed.

This natural division between user applications and their underlying data structures lends itself to two job categories—database administrator and system administrator.

An Oracle Applications system administrator manages the user interface or applications side of the database management system.

An Oracle database administrator (DBA) manages the data that the various applications enter, update, and use for company business.

Managing Application Security

Chapter 2

Notations:

(N) = Navigator
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(H) = Hyperlink
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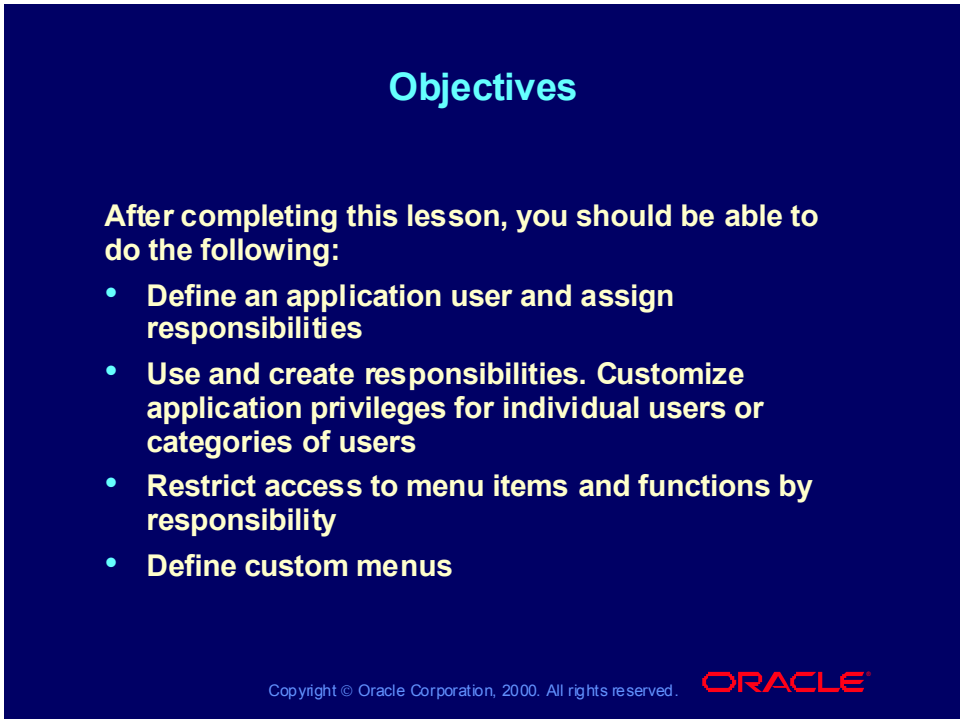
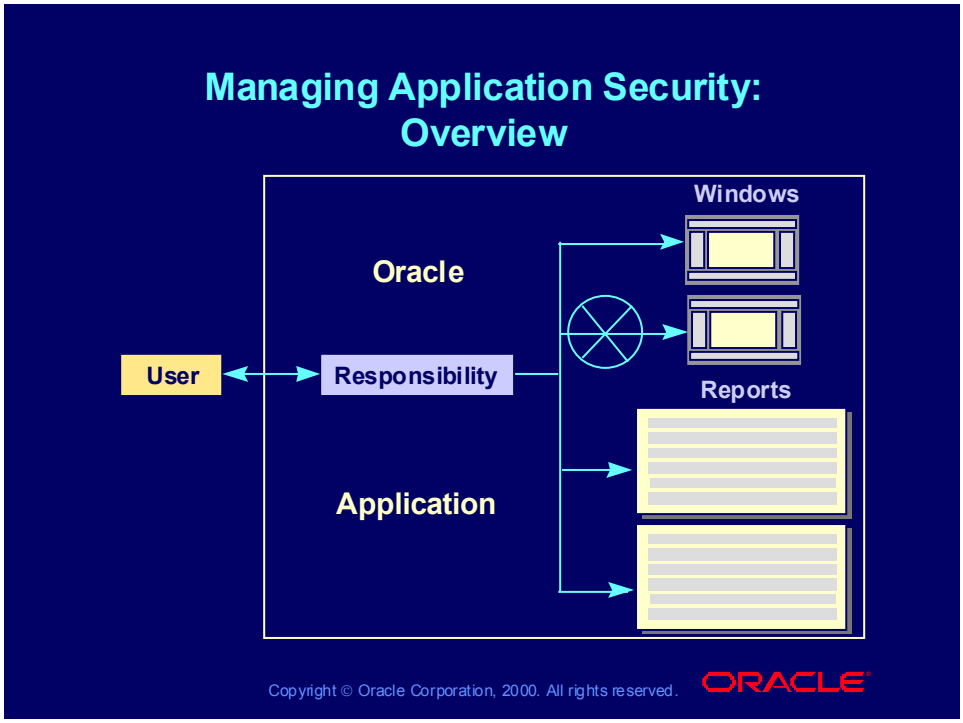
Objectives



Lesson Aim

One of the most important functions of a system administrator is to manage security for the Oracle Applications environment. In Oracle Applications security is implemented by creating user signons and relating them to a responsibility. The responsibility specifies the actual access authorizations. This lesson shows you how to define both user signons and responsibilities.



Managing Application Security: Overview

In an Oracle Application, the system administrator manages security by creating user signons and assigning them to one or more responsibilities. Users then have access to all the functionality associated with that responsibility.

User Security

You authorize a user to sign on to Oracle Applications by defining an application user. You then assign one or more responsibilities to the new user.

Responsibility Security

A responsibility is a collection of authorizations that allow access to:

- A specific application or applications
- A set of books
- A restricted list of windows, functions, and reports

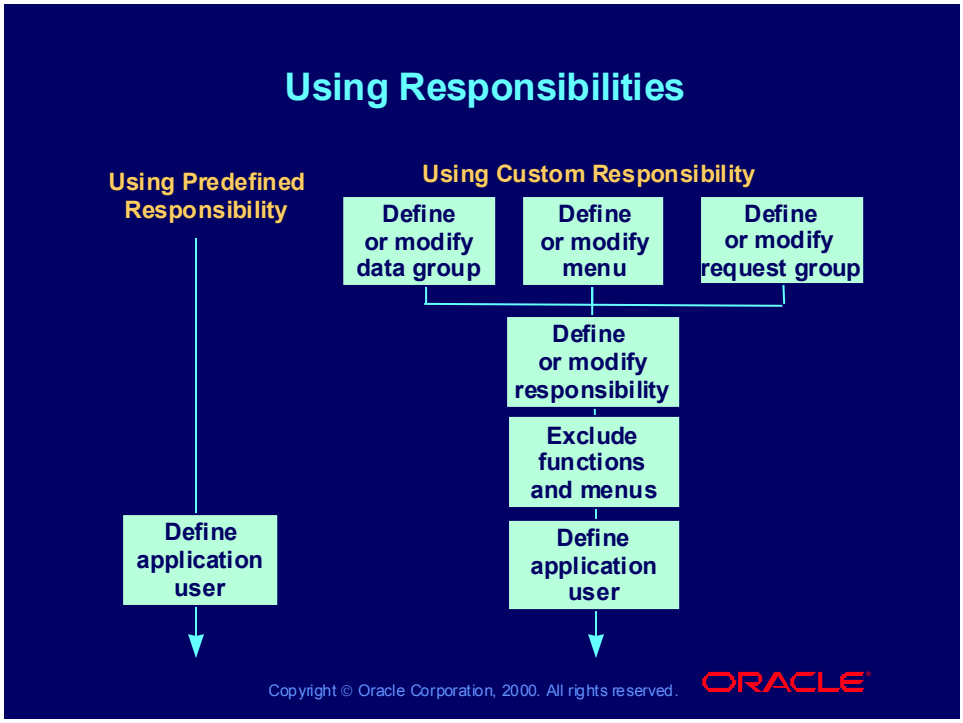
Each user has one or more responsibilities, and several users can share the same responsibility.

A system administrator can assign users any of the standard responsibilities provided with Oracle Applications or create new custom responsibilities as needed.

Self-Service Applications Security

Oracle Self-Service Web Applications use columns, rows, and values in database tables to define what information users can access. Table columns

represent “attributes” that can be assigned to a responsibility. These attributes are defined in the Web Application Dictionary.



Creating a New Responsibility

Generally you relate new application users to existing predefined responsibilities. However, you can customize an existing responsibility or create new responsibilities to accommodate the needs of different users or different categories of users. When creating a new responsibility, it is generally easier to modify an existing responsibility in one of two ways:

Extend Privileges That a Responsibility Owns

When users require additional reporting and summary information, you can:

- Use request groups to add additional program or report privileges to a responsibility
- Use menus to add windows and tasks to a responsibility

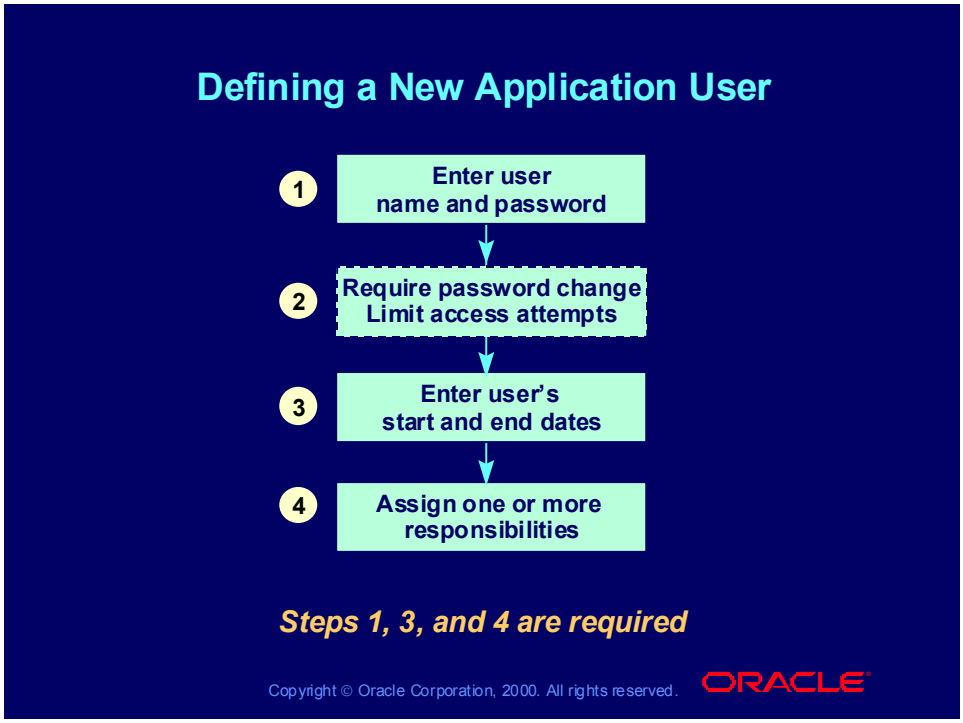
Restrict Privileges That a Responsibility Owns

Sometimes it is easier to remove authorizations from an existing responsibility. To do this you can:

- Use exclusions against a responsibility to limit menu and function access privileges to those required for job duties
- Use request groups to limit program or report privileges for a responsibility that requires only data entry privileges

After you have defined a new responsibility, you can associate it with an application user.

Defining a New Application User



Defining a New User

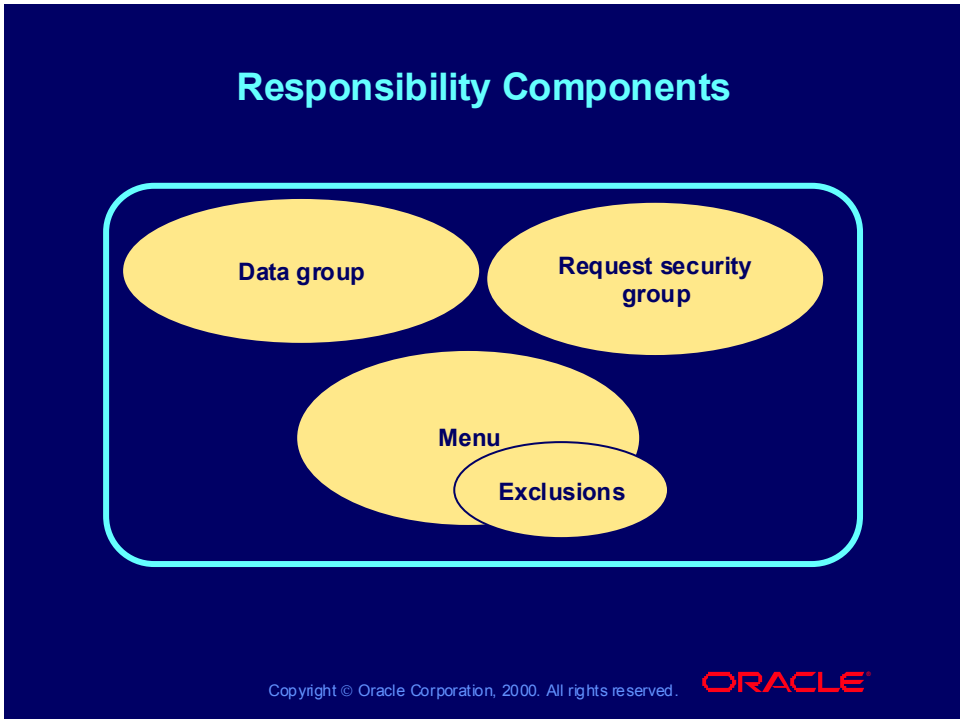
(N) Security > User > Define

Define an authorized user of Oracle Applications by specifying a username and password. Grant application privileges by assigning one or more responsibilities to the user.

For a complete explanation of the fields on the Users Form see:

(Help) Applied Technology > Oracle Applications System Administration > Overview of Oracle Applications Security > Users Window

Responsibility Components



Components of a Responsibility

A responsibility has two required components and two optional components.

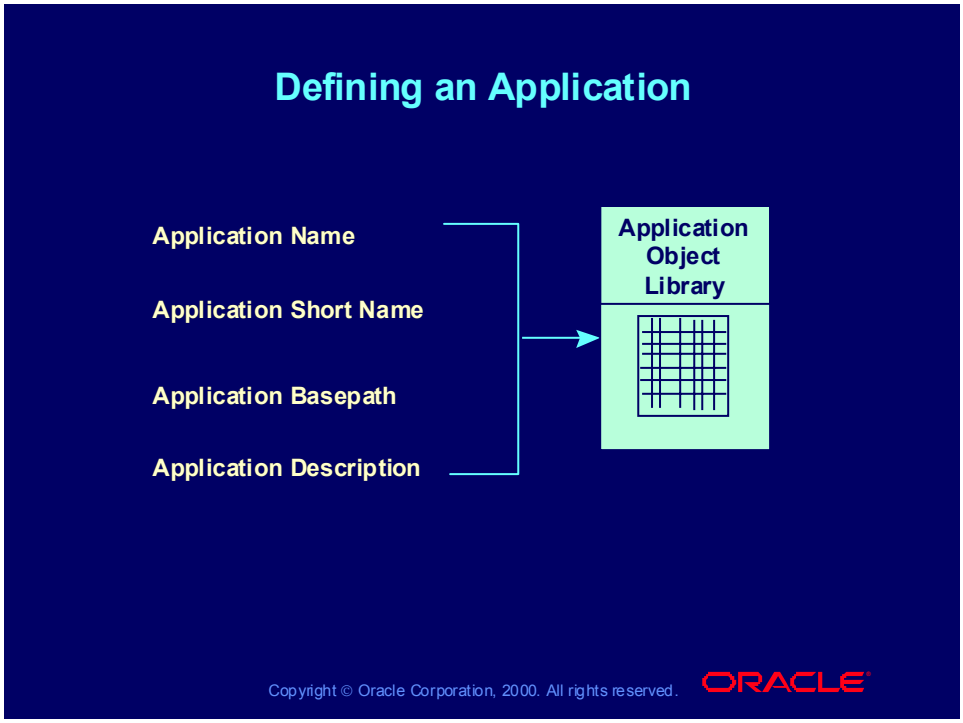
Required Components

- Data group: A data group specifies the Oracle Application database accounts to which a responsibility's forms and concurrent programs connect.
- Menu: A menu specifies the forms that a responsibility can display and the functions it can access.

Optional Components

- Request security group: A request group lists the concurrent programs that a responsibility can run. When a request group is assigned to a responsibility, it is referred to as a request security group.
- Exclusions: Exclusions modify a responsibility's access to the forms and functions specified by a menu.

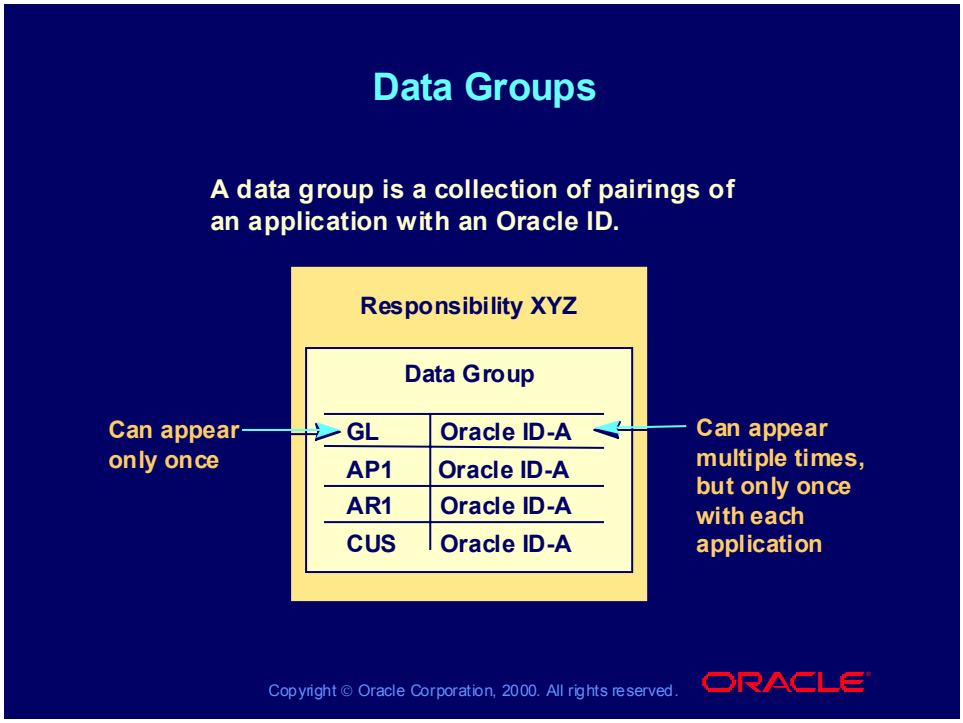
Defining an Application



Applications Window : (N) Application > Register

For a complete explanation of the fields in this form see:

(Help) Applied Technology > Oracle Applications System Administration > Applications DBA > Applications Window



What Is a Data Group?

A data group is a collection of pairings of an application with an Oracle ID. Data groups automatically support concurrent processing and cross-application reporting. They guarantee that an application connects to a unique application database account.

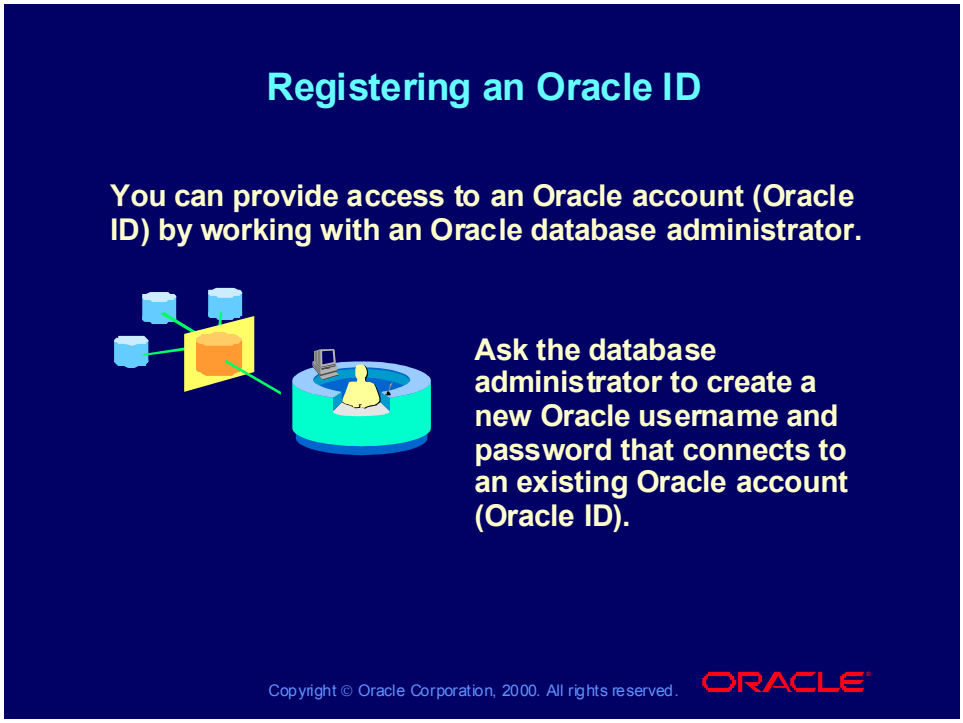
Note: The installation process automatically defines data groups for Oracle Applications, so you only need to define additional data groups based on your specific requirements.

Application-Oracle ID Pairs

- An application can be listed only once in a data group.
- An Oracle ID can be paired with more than one application.
- A custom application registered with Oracle Applications can be included in a data group.

Data Groups and Application Object Library

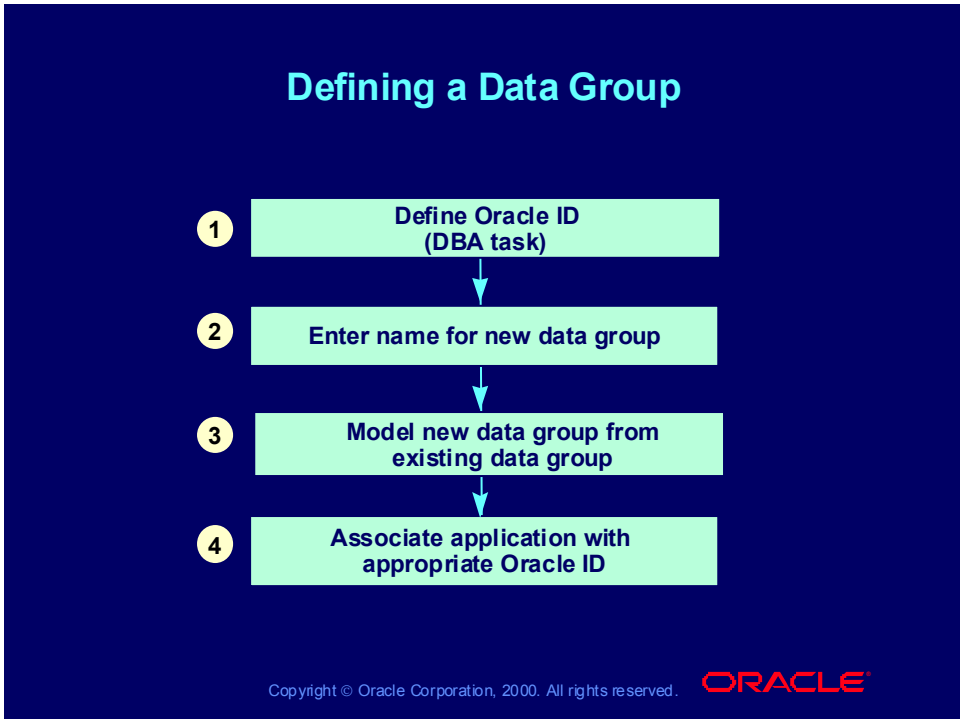
Application Object Library owns the database tables referred to during concurrent processing and the standard submission of reports by any Oracle Application. Therefore all applications need access to the Application Object Library tables. When you are defining a data group, the application Application Object Library is automatically included. The Application Object Library's Oracle ID cannot be updated or deleted.



Registering an Oracle ID

(N) Security > ORACLE > Register

- Only database administrators can create Oracle accounts.
- The install group designates which data group the application is associated with. For applications that span all data groups, the install group is 0. Install groups numbered 1 or greater are associated with one specific data group. Your database administrator can supply the correct install group number.



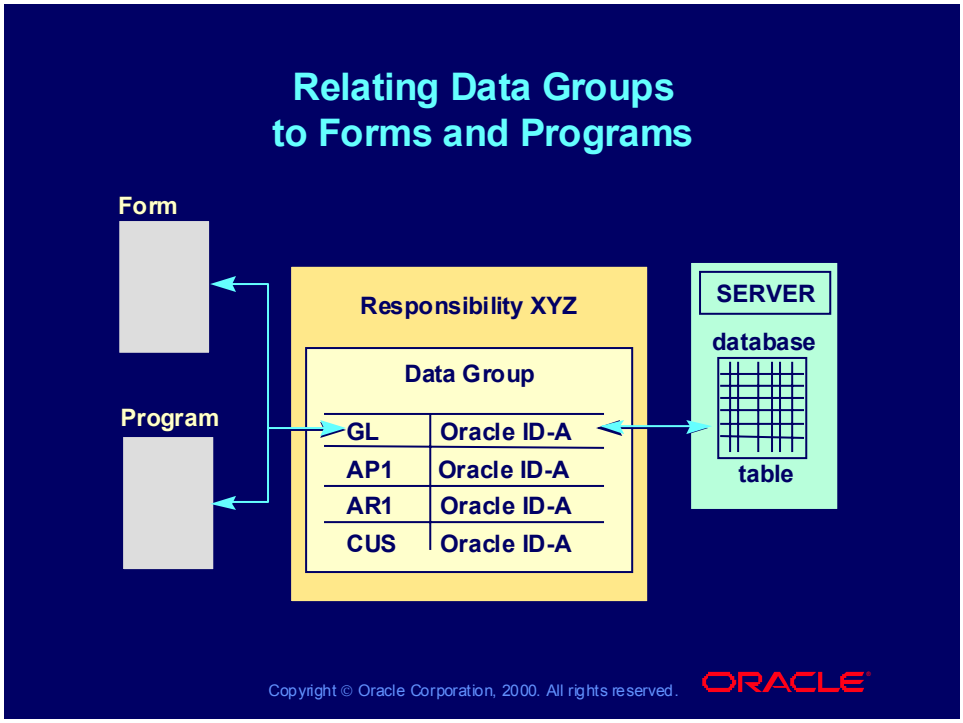
Defining Data Groups

By defining a data group, you can determine which Oracle account (Oracle ID) an application's windows, reports, or concurrent programs connect to. Use data groups to grant application database account privileges to a responsibility and the requests that it submits

Data Groups Serve Two Purposes

- Identify the Oracle ID to which forms connect when users select the responsibility. Choose one application-Oracle ID pair from the data group to associate with your responsibility's windows.
- Concurrent managers use a data group to match the application that owns a report or concurrent program with a unique Oracle ID.

Additionally, you can incorporate custom applications by granting application database access to custom applications that you develop. Alternatively, use custom applications to name customized versions of concurrent programs, responsibilities, and concurrent managers to protect your customizations during an upgrade.



Relating Data Groups to Forms and Programs

You can control the relationship among applications, forms, and concurrent programs by defining a data group.

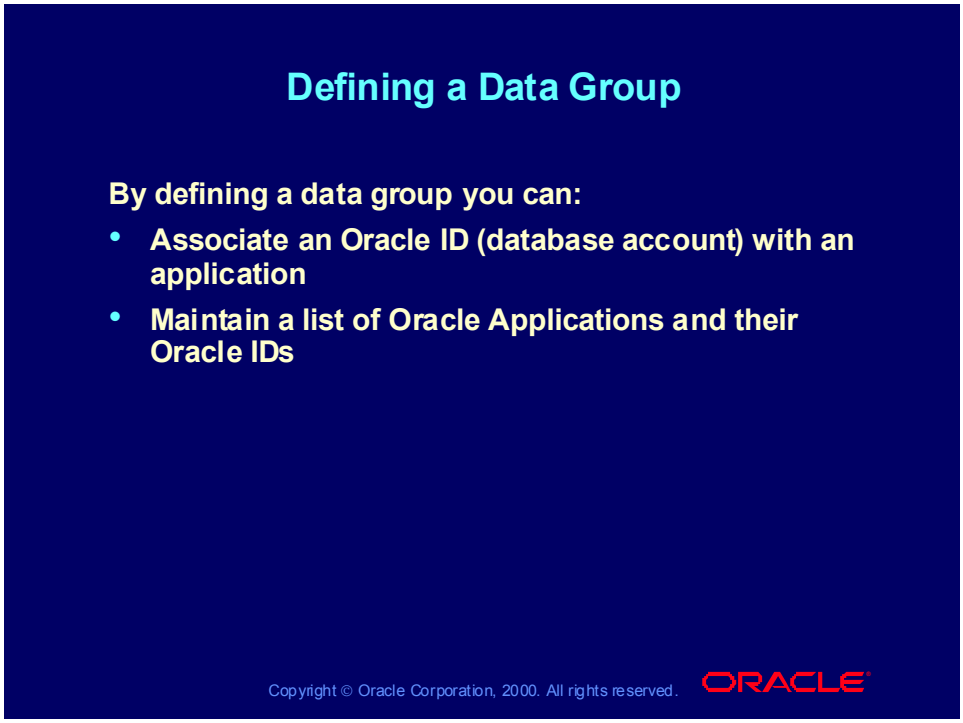
Applications, Forms, and Programs

- A window connects to the application database account designated by the responsibility associated with the application.
- A data group determines the pairing of an application with a unique application database account or Oracle ID.
- A program connects to the application database account associated with the application that owns the program.

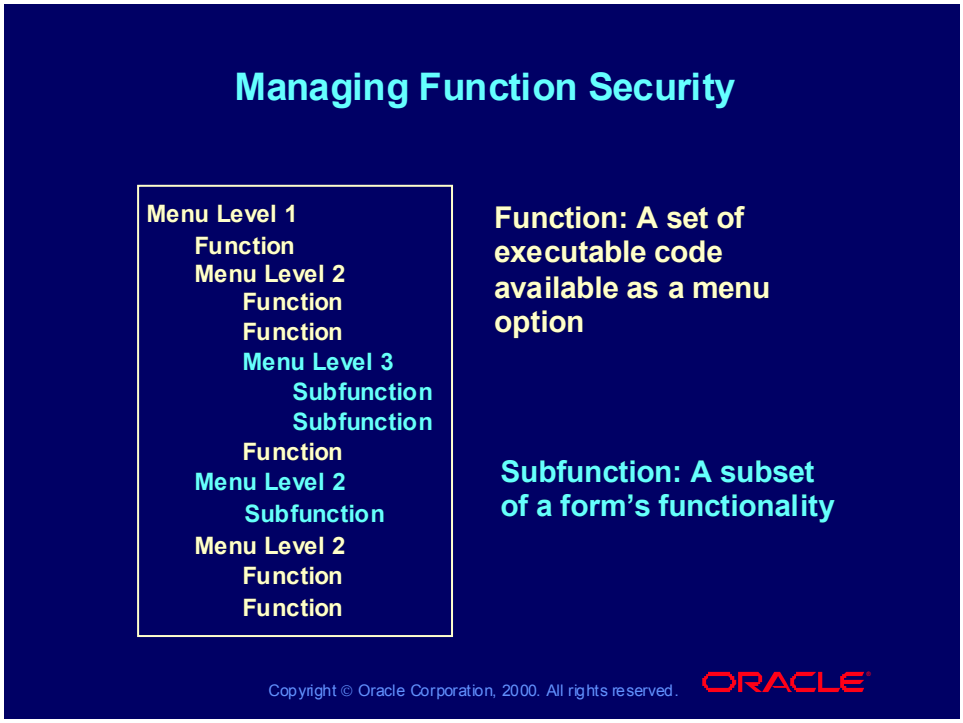
Application-Oracle ID Pairs

- An Oracle ID is a username and password that allows access to application tables in an Oracle database.
- A data group lists the Oracle ID assigned to each Oracle application.
- A custom application registered with Oracle Applications can be included in a data group and paired with an Oracle ID.

Defining a Data Group



Data Groups Form:
(N) Security > ORACLE > DataGroup



Function Security

You can manage security by controlling access to individual functions through menu definitions.

About Functions

- A function is a set of code in Oracle Applications that is executed only if the name of the function is present in a list maintained within a responsibility.
- There are two types of functions: a form function and a nonform function or subfunction. A subfunction represents a securable subset of a form's functionality.

Web Regions

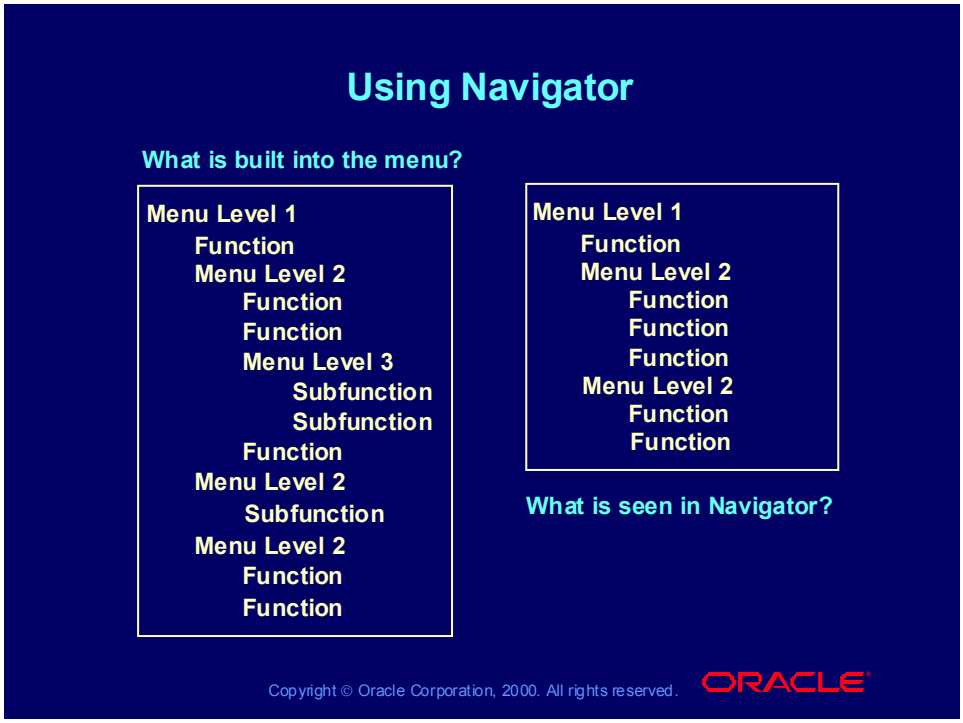
The fields in the Web regions are required only if your function will be accessed from Oracle Self-Service Web Applications.

Adding Functions to or Removing Functions from a Responsibility

- Maintain menu structures while eliminating specific functionality.
- Exclude individual functions from a responsibility.

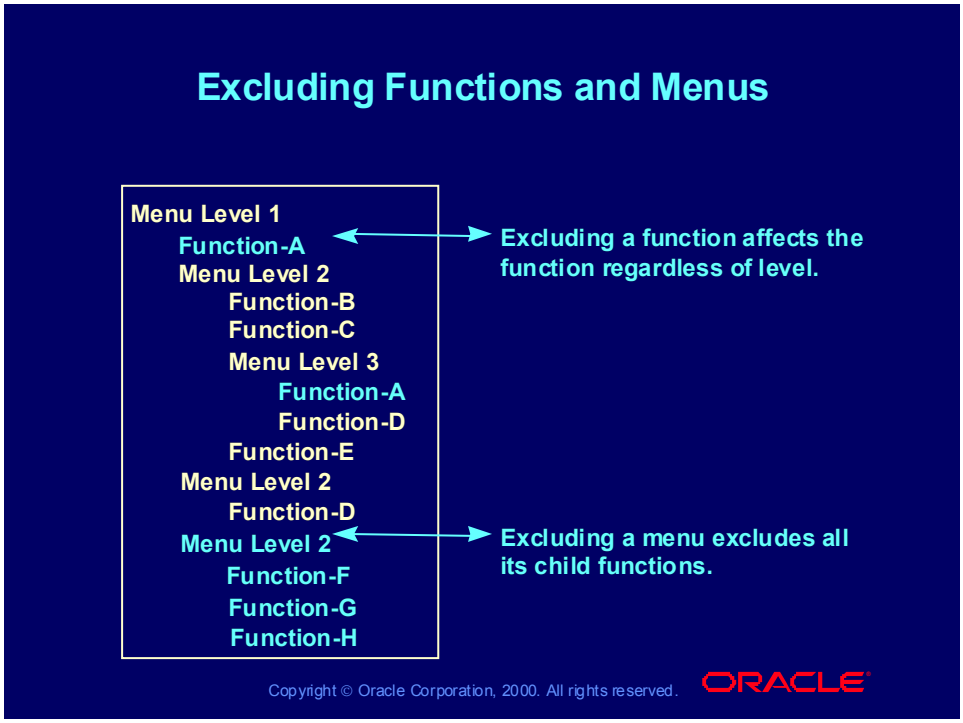
Adding or Removing Menus of Functions

- Use menus to group functions together.
- Exclude groups of functions by excluding a menu from a responsibility.



Navigator Menu Displays

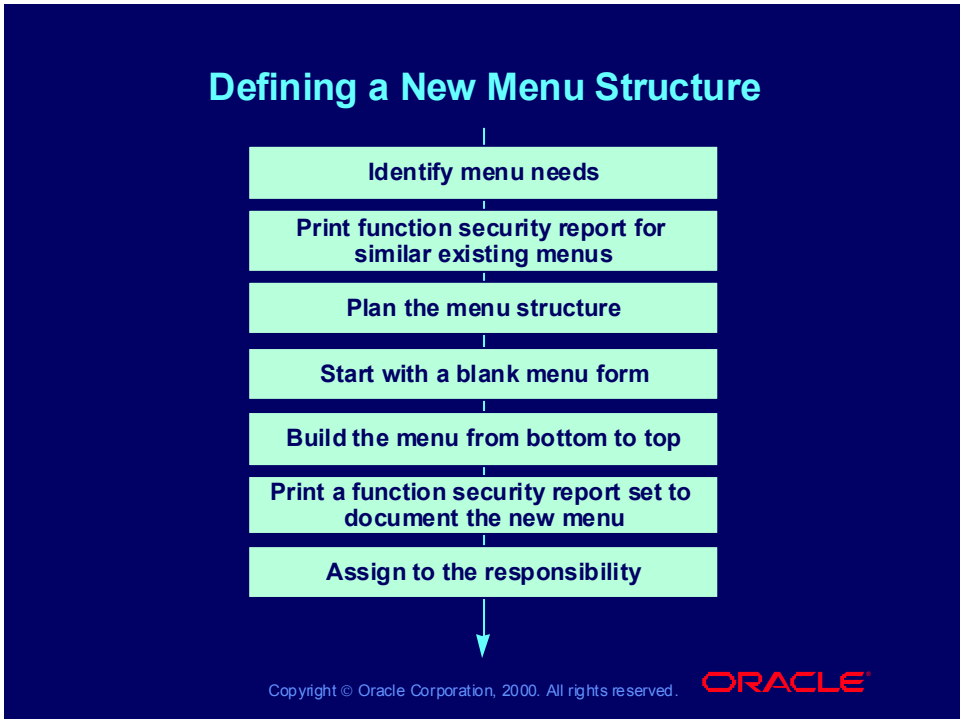
Navigator displays only the menu items needed for navigation. Because you cannot choose subfunctions from a menu, they are not displayed. Submenus consisting only of subfunctions are also not displayed.



Exclusion of Functions and Menus

Use exclusion rules to customize a responsibility. You can exclude functions at any level.

- When you exclude a menu item from a responsibility, all menus and functions that are nested in that menu are also excluded.
- When you exclude a function from a responsibility, all occurrences of that function throughout the menu structure of a responsibility are excluded.



New Menu Structure

Use the Menus form to define menus pointing to functions that you want to make available to a new responsibility.

Make New Responsibilities, Not New Menus

If possible, apply exclusion rules to existing menus to customize a responsibility rather than constructing an entirely new menu structure.

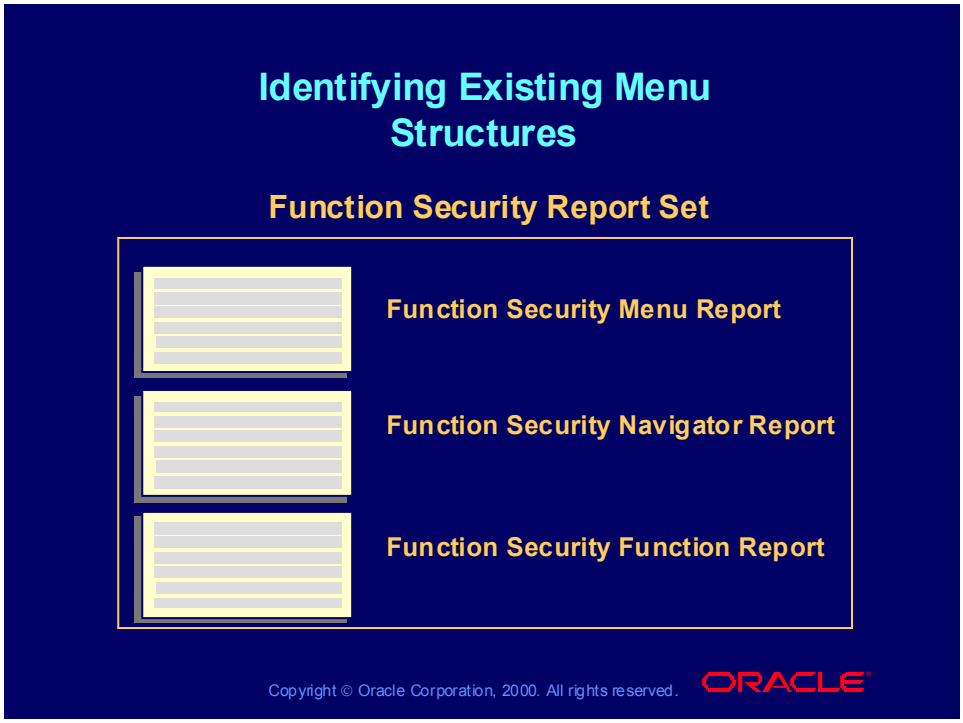
Determine the Application Functionality Required

- Different jobs require access to different function groups.
- Identify predefined menus, forms, and form subfunctions to use as entries when defining a new menu.

Plan Your Menu Structure

- Start with a blank Menus form (blank screen). Menus cannot be copied. A menu saved under a different name overwrites the original menu (there is no Save As feature).
- Start with the lowest-level menus. A menu must be defined before it can be selected as an entry on another menu.
- Assign menus and functions to higher-level menus.
- Document your menu structure by printing the Function Security Menu Report.

- Assign the menu structure to a new responsibility by using the responsibilities form.
- Create a new responsibility.



Designing a New Menu Structure

Before designing a new menu structure, identify any possible existing menu structures that can be modified or modeled from, and document custom menus by using reports in the Function Security Report Set.

Function Security Menu Report

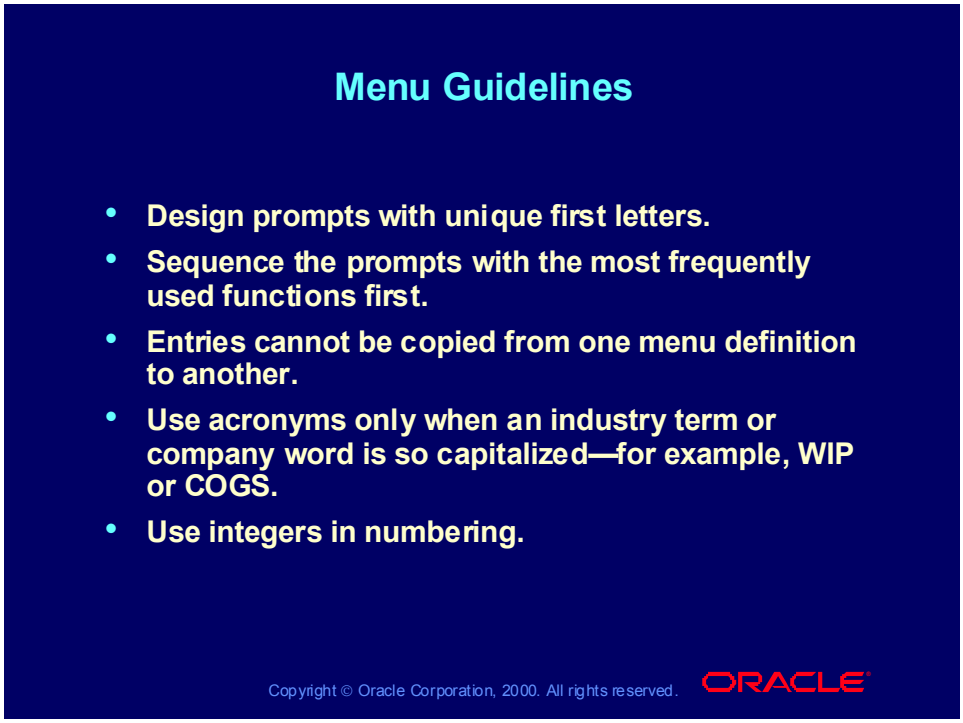
- Lists the full menu name of the responsibility
- Indicates any excluded menu items, with the rules that exclude them

Function Security Navigator Report

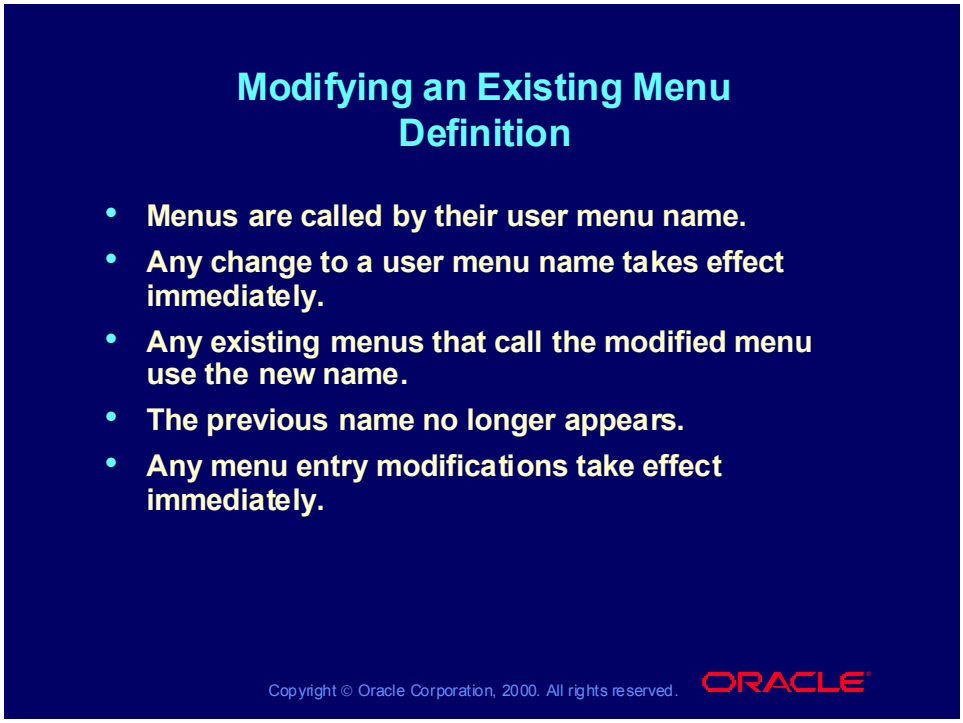
- Lists the menu as it appears in the Navigator for the responsibility specified
- Does not include items excluded by function security rules

Function Security Function Report

- Lists the functions accessible by the responsibility specified
- Does not include items excluded by function security rules



Modifying an Existing Menu Definition



Modifying a Menu

You can modify predefined menus to suit specific job functions.

Overwrite a User Menu Name

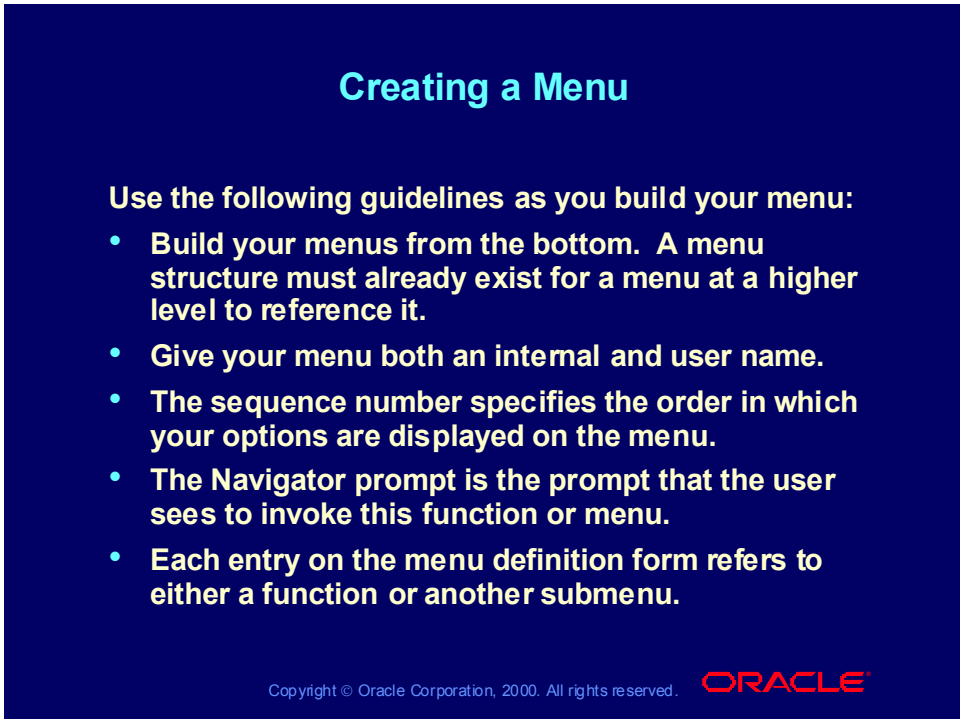
When you change a menu's user menu name, the menu entries are not affected. The menu's definition still exists, but under a new name. Other menus that call the menu by its old user menu name now call the same menu by its new (revised) user menu name.

The old user menu name is no longer valid. When you are defining menus, or if you are selecting main menus when defining a responsibility, the previously named menu is no longer displayed in any list of values.

Modify a Menu Entry

When you are modifying a predefined menu, all other menus that call that menu display the menu's modifications. For example, if you modify GL_SUPERUSER4.0 by adding another prompt that calls a form, all menus that call GL_SUPERUSER4.0 display the additional prompt when GL_SUPERUSER4.0 is displayed.

Creating a Menu



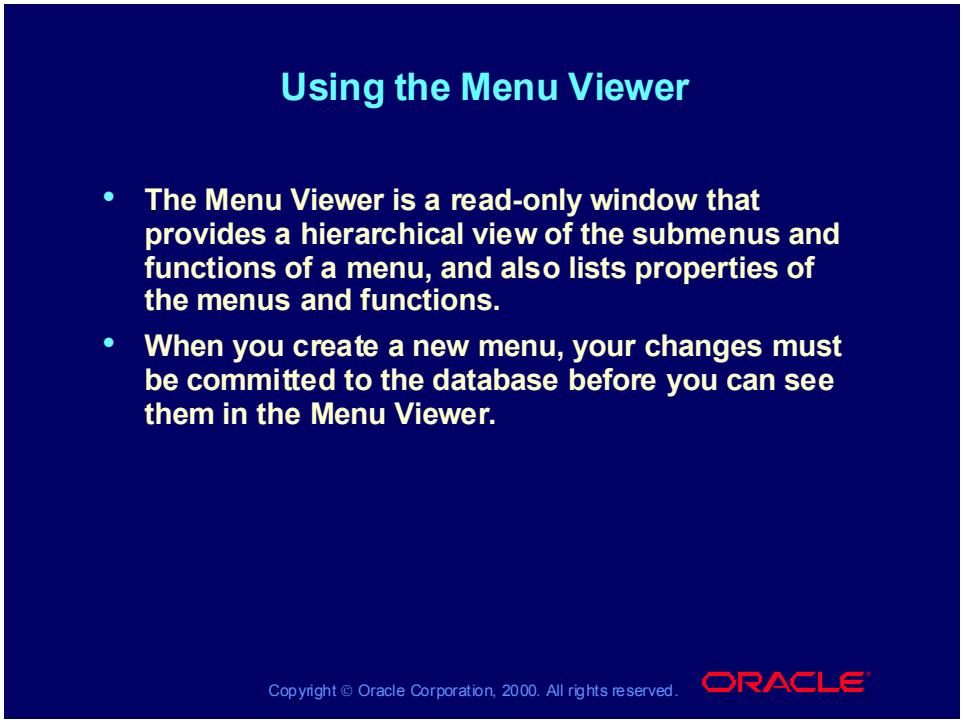
Use the Menus window to create a menu:

(N) Application > Menu

For a complete explanation of the fields on this form see:

(Help) Applied Technology > Oracle Applications System Administration > Function Security > Menus Window

Using the Menu Viewer



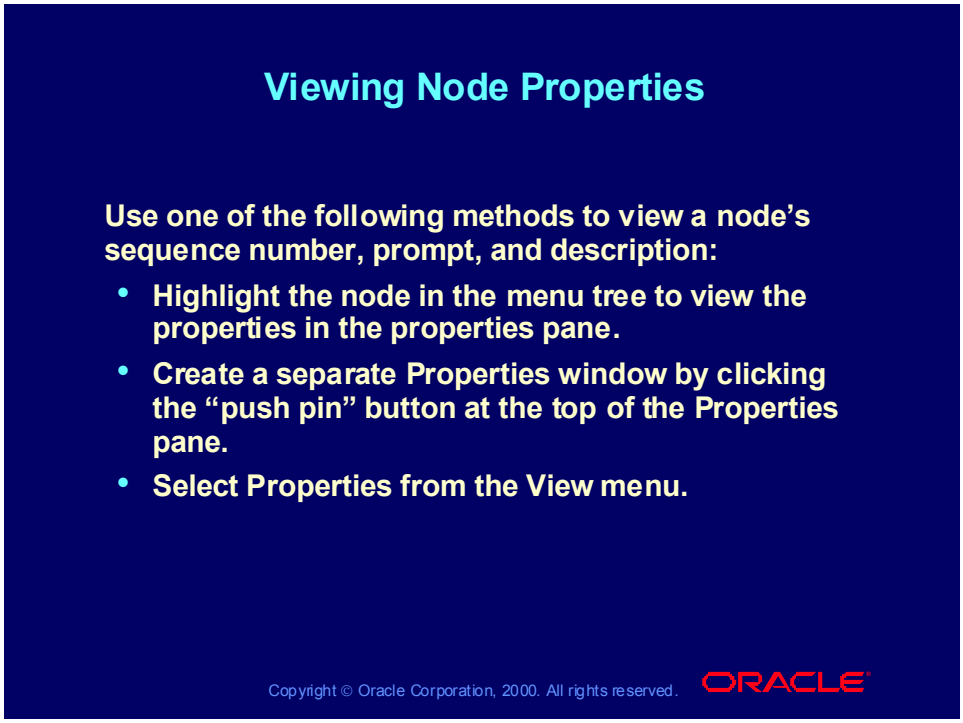
Viewing the Menu Tree

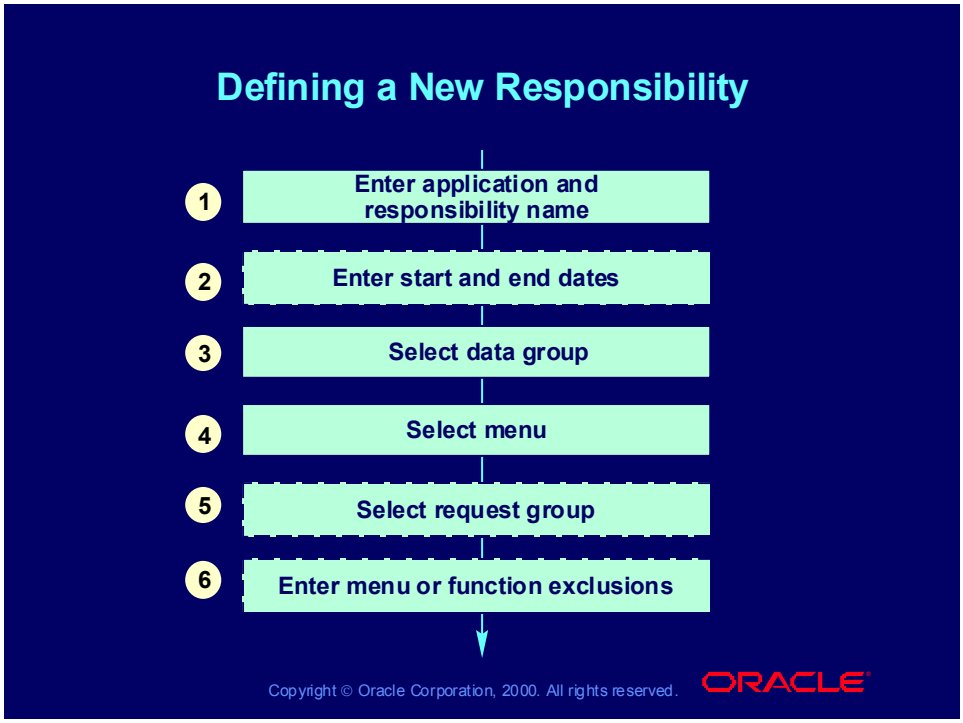
(N) Application > Menu > (B) View Tree...

- To view the menu tree, click on the plus (+) sign next to the menu name. You will see a hierarchical tree with a number of nodes. Each node represents a function or submenu of your main menu.
- The menu tree displays the user menu name for the main menu, and displays the prompts from the Menus form for submenus and functions. If no prompt has been specified, then no label will appear for the node.

Printing the Menu Tree

To print a menu tree, choose Print from the File menu.

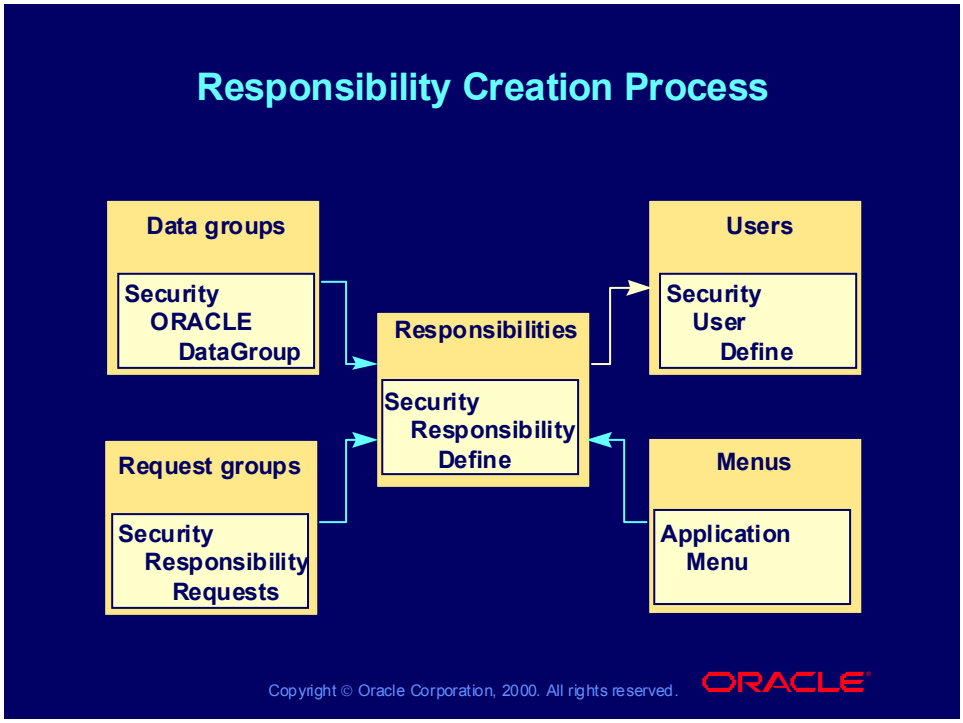




Defining a New Responsibility

- Assemble the components of application privileges to create a responsibility.
- Define the responsibility by assembling a menu, report security group, and data group and defining any function security (any menu or function exclusions).

Responsibility Creation Process

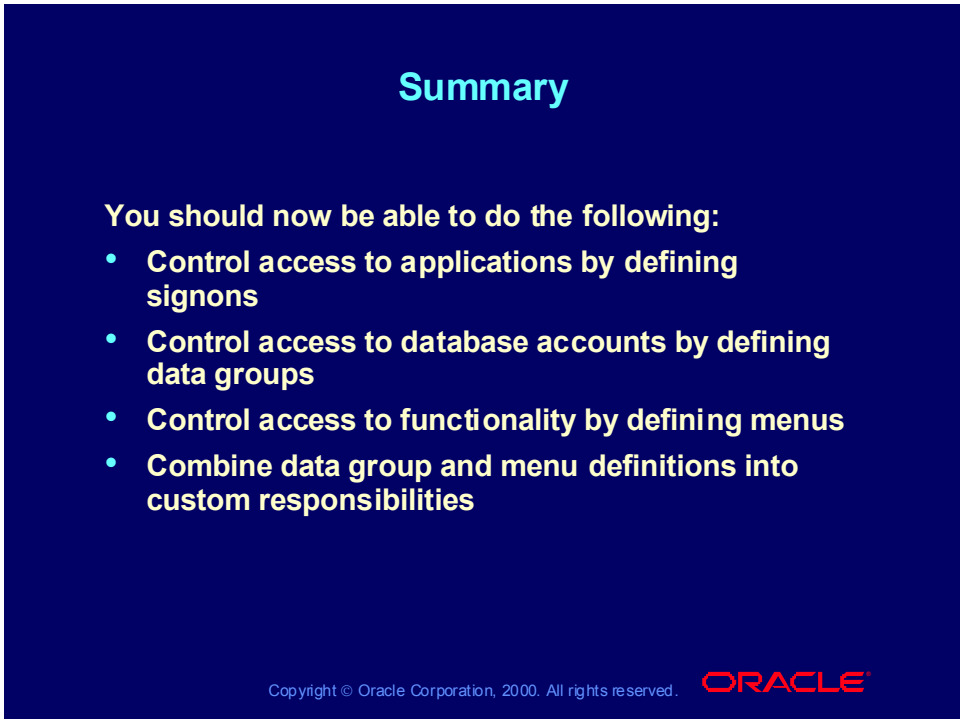


Defining a Responsibility

(N) Security > Responsibility > Define

A responsibility determines if the user accesses Oracle Applications or Oracle Self-Service Web Applications, which application functions a user can use, which reports and concurrent programs the user can run, and which data those reports and concurrent programs can access.

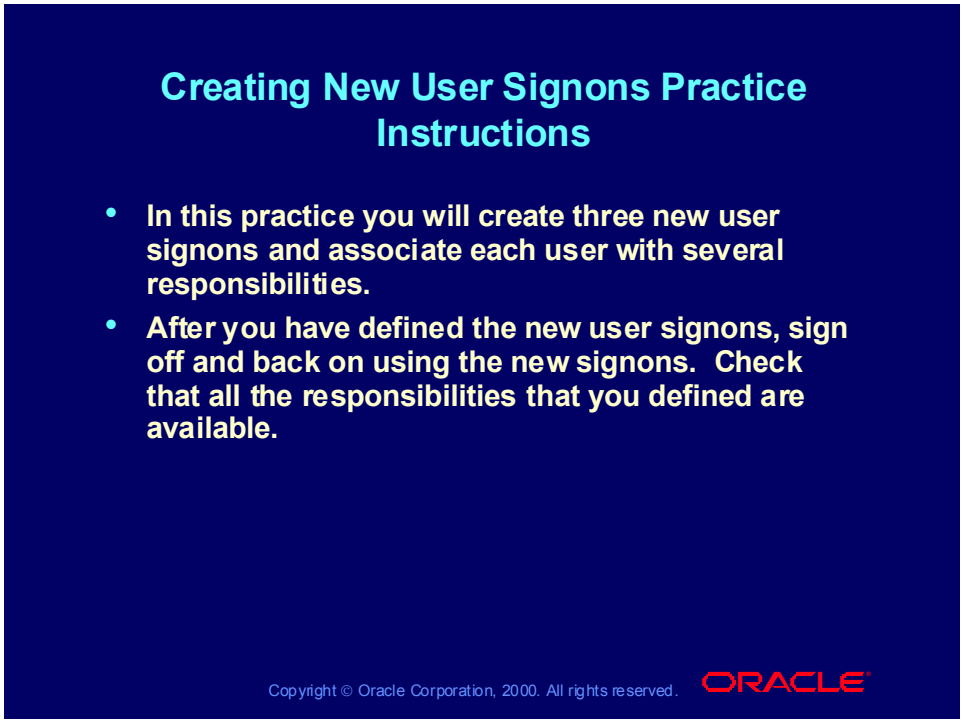
Summary



Lesson Summary

One of the most important functions of the system administrator is controlling applications security. The system administrator specifies which users have access to which functions. User signons provide the user access to an application. Responsibilities control that user's access to various functions of the application. Online access is controlled through the use of menus and menu exclusions. Report and concurrent program access is controlled through the use of request groups.

Creating New User Signons Practice Instructions



Instructions

In this practice you will create three new user signons and associate each user with several responsibilities. Use the values below to define these new users.

After you have defined the new user signons, sign off and back on using the new signon. Check that all the responsibilities that you defined are available.

User #1

User Name: Your System Administrator User Name_____

Password: WELCOME

Description: System Administrator

Password Expiration: 30 days

Effective Dates: today - 2 months from today

Responsibility: System Administrator

User #2

User Name: Your GL Controller User Name _____

Password: WELCOME

Description: Controller

Password Expiration: 90 days

Effective Dates: none

Responsibility: General Ledger, Vision Operations (USA)

Payables, Vision Operations (USA)
Receivables Manager
Purchasing, Vision Operations (USA)

User #3

User Name: Your Accounts Payable Clerk User Name _____
Password: WELCOME
Description: Accounts Payable Clerk
Password Expiration: 30 accesses
Effective Dates: none
Responsibility: Payables Vision ADB (USA)

Practice Solutions

Enter User #1

1. Navigate to (N) Security > User > Define.
2. Type in the appropriate information for User #1 as described in the instructions.
3. Click Save to save your work.

Enter User #2

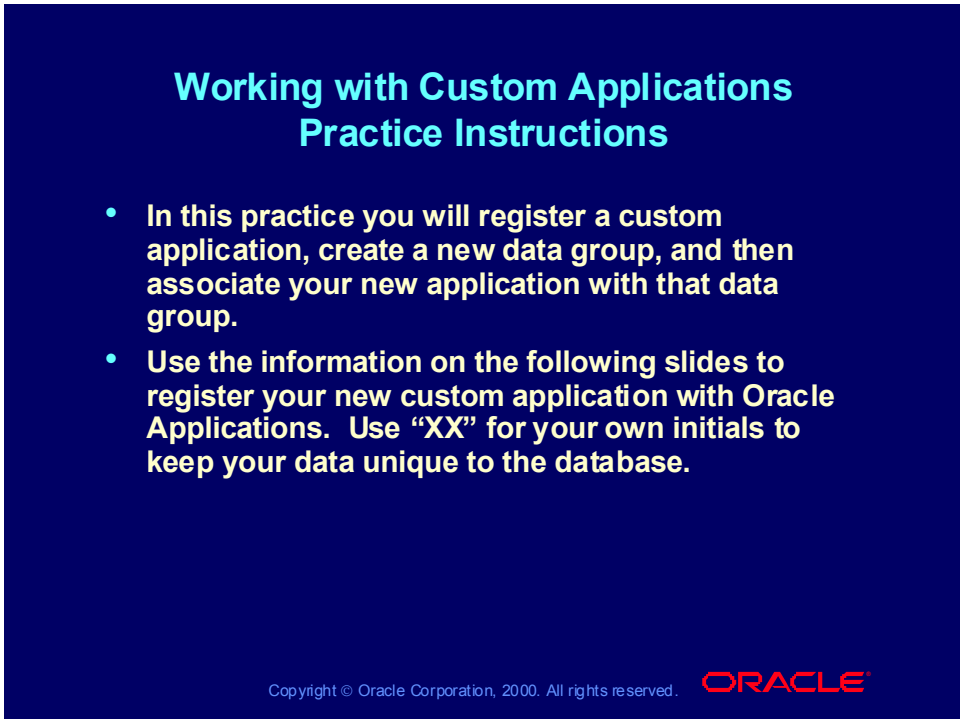
4. Navigate to (N) Security > User > Define.
5. Type in the appropriate information for User #2 as described in the instructions.
6. Click Save to save your work.

Enter User #3

7. Navigate to (N) Security > User > Define.
8. Type in the appropriate information for User #3 as described in the instructions.
9. Click Save to save your work.

Review Your New Users

10. Select (M) File > Log on as a Different User... to check each user account that you set up. You will have to change the passwords, so be sure to write down the new passwords.



Instructions

For Your Custom Application

Application: Your Custom Application Name

_____

Short Name: Use XX plus two or three initials of your custom application name. Write it here _____

Basepath: FND_TOP

Note: For class purposes, we are using a predefined basepath; if you were truly defining a custom application for your organization, this would be a unique basepath.

Description: My Custom Application

For Your Data Group

Name: Your Company Name Data Group

_____

Application: Your Custom Application Name

Oracle ID: APPS

Use the "Copy Applications From" button to copy the Applications from the Oracle provided data group to your custom data group. Then, add a record to the new data group you create and add the custom application that you just registered.

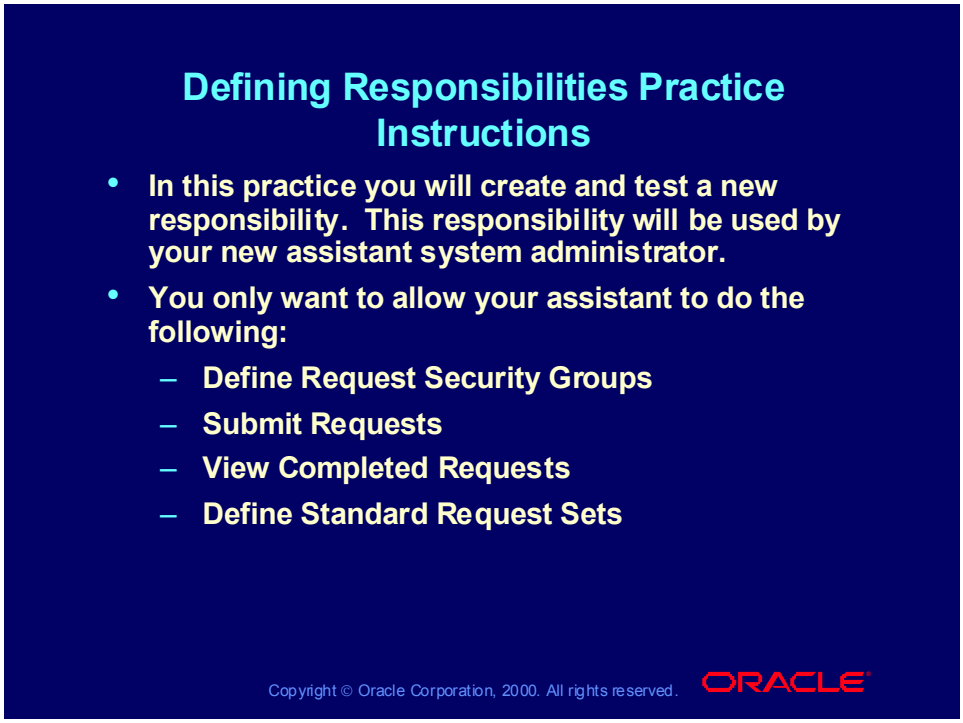
Practice Solutions

Register Your Custom Application

1. Navigate to (N) Application > Register.
2. Enter the data from the instructions into the appropriate fields on the window.
3. Click Save to save your work.

Create Your Data Group

4. Navigate to (N) Security > ORACLE > DataGroup.
5. Enter your data group name and description.
6. Click the Copy Applications From... button.
7. Select “Standard” to copy the Applications from the Oracle-provided data group to your custom data group.
8. Ensure that your cursor is located within the applications block and click the New toolbar icon or choose New from the File menu to add a row for your custom application.
9. Choose your custom application name from the list of values for the Application field.
10. Choose APPS from the list of values for the Oracle ID field.
11. Enter your description.
12. Click Save to save your work.



Instructions

Use the information in the chart below to define your responsibility.

Name: Your Company Name Temp Sys Admin

_____

Application: Your Company Name Custom Application

Responsibility Key: Your Company Name Initials

_____

Description: Temp Sys Admin

Data Group Name: Your Company Name Data Group

Data Group Application: Your Company Name Custom Application

Menu: Navigator Menu - System Administrator

In order to test this new responsibility, create a new user signon for your assistant system administrator and assign your newly created responsibility to this user signon. Use the information in the chart below to create a new user signon.

User Name: Your Temp Sys Admin User Name

_____

Password: WELCOME

Description: Temp System Administrator

Password Expiration: 30 days

Responsibility: Your Company Name Temp Sys Admin

Once you have defined it, sign off and back on using the new signon. Check that all the specialized responsibilities and exclusions that you intended apply to this new user.

Practice Solutions

Create Your New Responsibility

1. Navigate to (N) Security > Responsibility > Define.
2. Enter the data from the instructions in the appropriate fields in the window.
3. Choose Menu in the Type field, use the LOV in the Name field, and exclude all of the items listed, **except** the following:

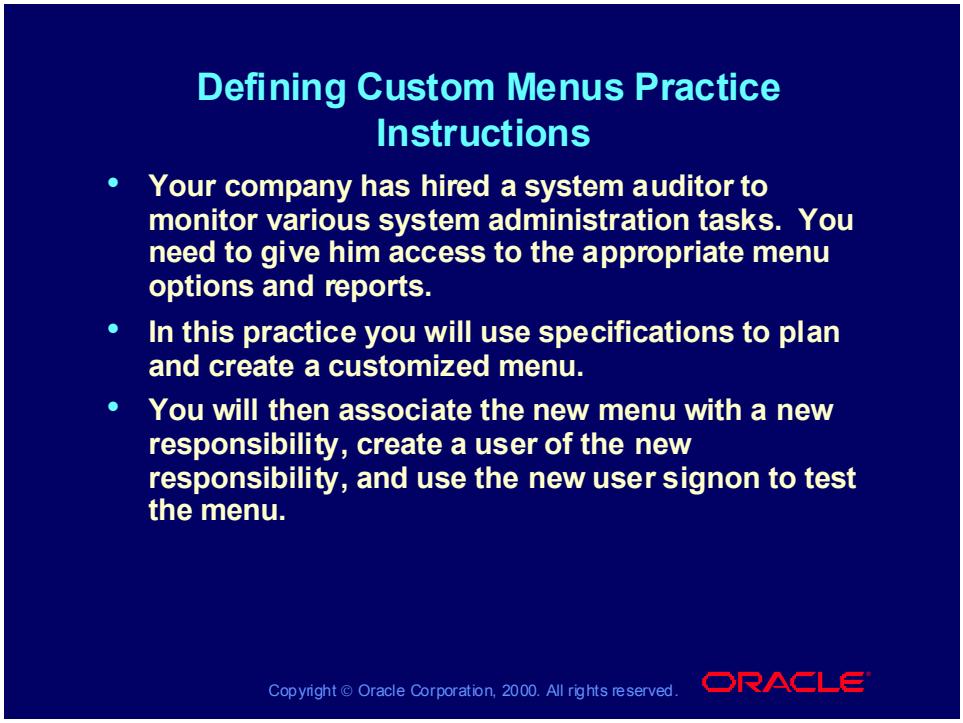
   Standard Report Submission and View Report (privileged)

   Program Menu - System Administrator

   Concurrent Menu - System Administrator
4. Click Save to save this responsibility.

Create a New User Signon

5. Navigate to (N) Security > User > Define
6. Enter the data from the instructions in the appropriate fields in the window.
7. Click Save to save your work
8. Test the New Signon and Responsibility
9. Select (M) File > Log on as a Different User...
10. Log on as your new user.
11. Note that the menu items that you excluded are not there.



Instructions

Level Three Menu

Menu Name: Your Company Name Level Three Menu

User Menu Name: Your Company Name Level Three Menu

Description: Custom Menu

Sequence	1	2
Navigator Prompt	Define	Assign
Submenu	n/a	n/a
Function	Flexfield Security Rules	Assign Flexfield Security Rule
Description	n/a	n/a

Level Two Menu

Menu Name: Your Company Name Level Two Menu

User Menu Name: Your Company Name Level Two Menu

Description: Custom Menu Level Two

Sequence	1	2
Navigator Prompt	Define	Request

Submenu	n/a	n/a
Function	Responsibilities	Request Groups
Description	n/a	n/a
Sequence	3	4
Navigator Prompt	Value Sets	Terminal
Submenu	"Co. Name" Level 3	Terminal Menu - Sys Admin GUI
Function	n/a	n/a
Description	n/a	n/a

Level One Menu
Menu Name: Your Company Name Level One Menu
_____
User Menu Name: Your Company Name Level One Menu
Description: Custom Menu Level One

Sequence	1	2
Navigator Prompt	User	Responsibility
	Submenu User Menu- Sys Admin GUI	"Co. Name" Level 2
Function	n/a	n/a
Description	n/a	n/a
Sequence	3	4
Navigator Prompt	ORACLE	GL Financials
Submenu	ORACLE Menu- Sys Admin GUI	GL_SU_FINANCIAL_GUI
Function	n/a	n/a
Description	n/a	n/a

Create the New Responsibility
Name: Your Company Name System Auditor _____
Application: Your Company Name Custom Application
Responsibility Key: Your Company Name Initials
Description: System Auditor
Data Group Name: Your Company Name Data Group
Data Group Application: Your Company Name Custom Application
Menu: Your Company Name Level One Menu

Assign the Responsibility to a New User

User Name: Your System Auditor User Name

_____

Password: WELCOME

Description: System Auditor

Password Expiration: none

Responsibility: Your Company Name System Auditor

Test that the new user, responsibility, and newly created and assigned menu work properly.

Practice Solutions

Create Your Custom Menus

1. Navigate to (N) Application > Menu.
2. Enter the data from the instructions in the appropriate fields in the window.
3. Click Save to save your work.
4. Repeat steps 1-3 for the level-two and level-one menu definitions.
5. Click View Tree... to see your new menus in the Menu Viewer.

Assign Your Custom Menus to a New Responsibility

6. Navigate to (N) Security > Responsibility > Define.
7. Enter the data from the instructions in the appropriate fields in the window.
8. Click Save to save your work.

Assign Your New Responsibility to a New User

9. Navigate to (N) Security > User > Define.
10. Enter the data from the instructions in the appropriate fields in the window.
11. Click Save to save your work.

Test Your New User, Responsibility, and Menu

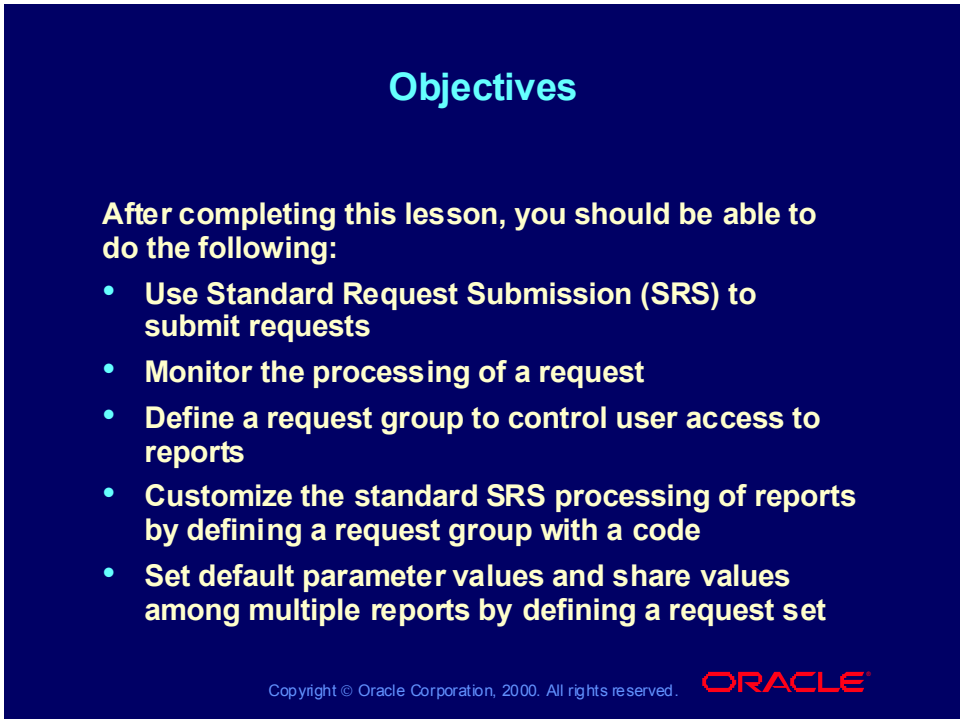
12. Select (M) File > Log on as a Different User...
13. Sign on as your System Auditor user name and note that the menu is the custom menu that you just created.

Managing Concurrent Programs and Reports

Chapter 3

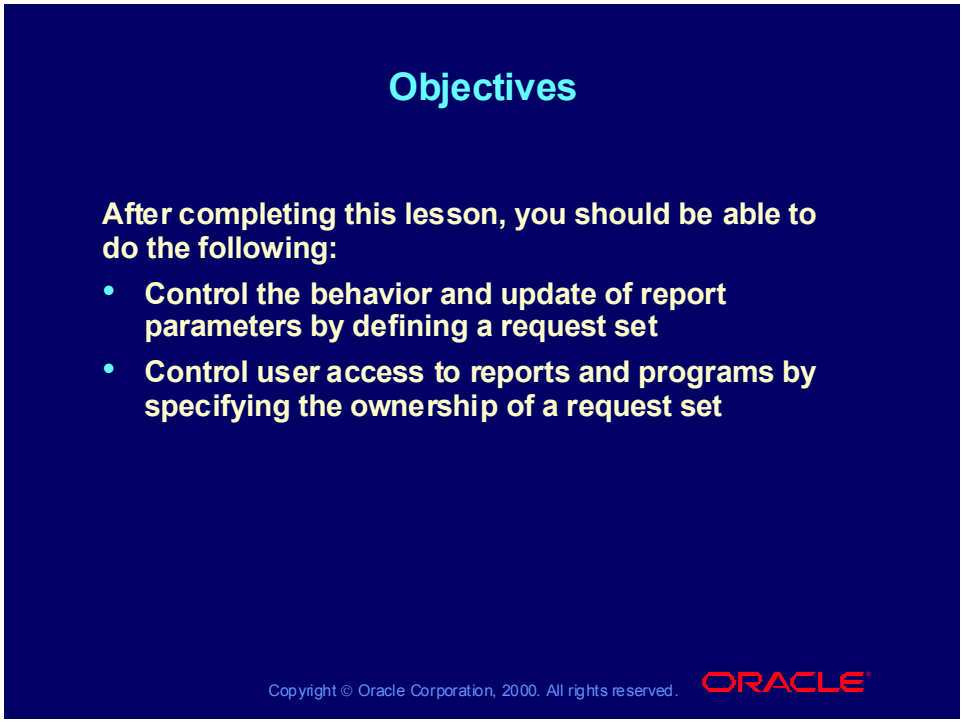
Notations:

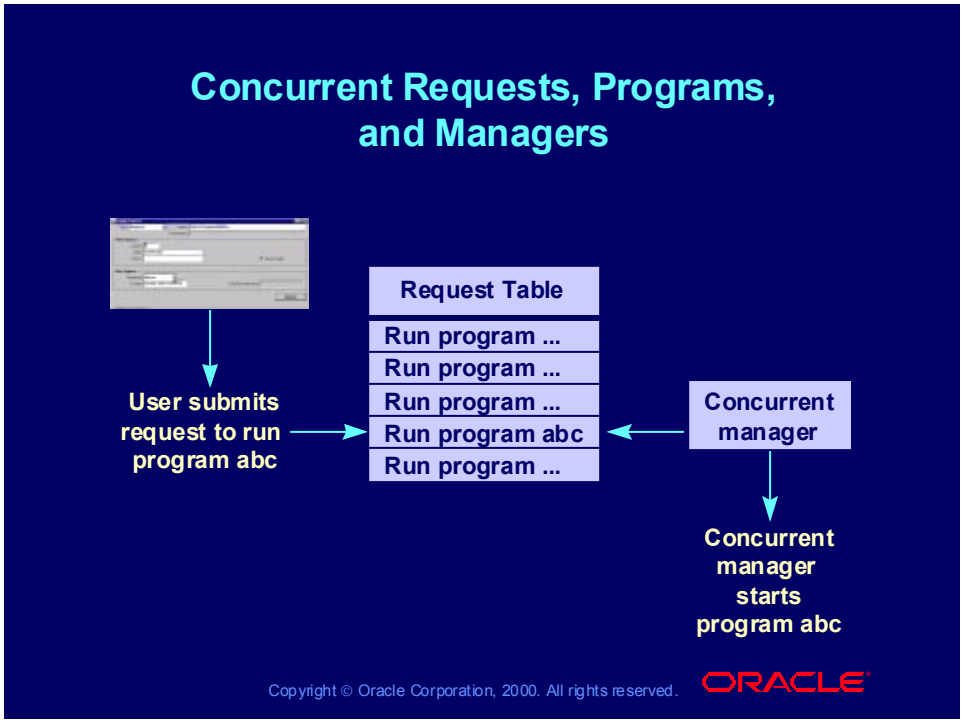
(N) = Navigator
(T) = Tab
(I) = Icon
(H) = Hyperlink
(B) = Button
(Help) = Oracle Applications Help System



Lesson Aim

An important area of security involves controlling access to reports and other concurrent programs. This level of security is provided by request group definitions. This lesson shows how the system administrator creates and uses these request groups.

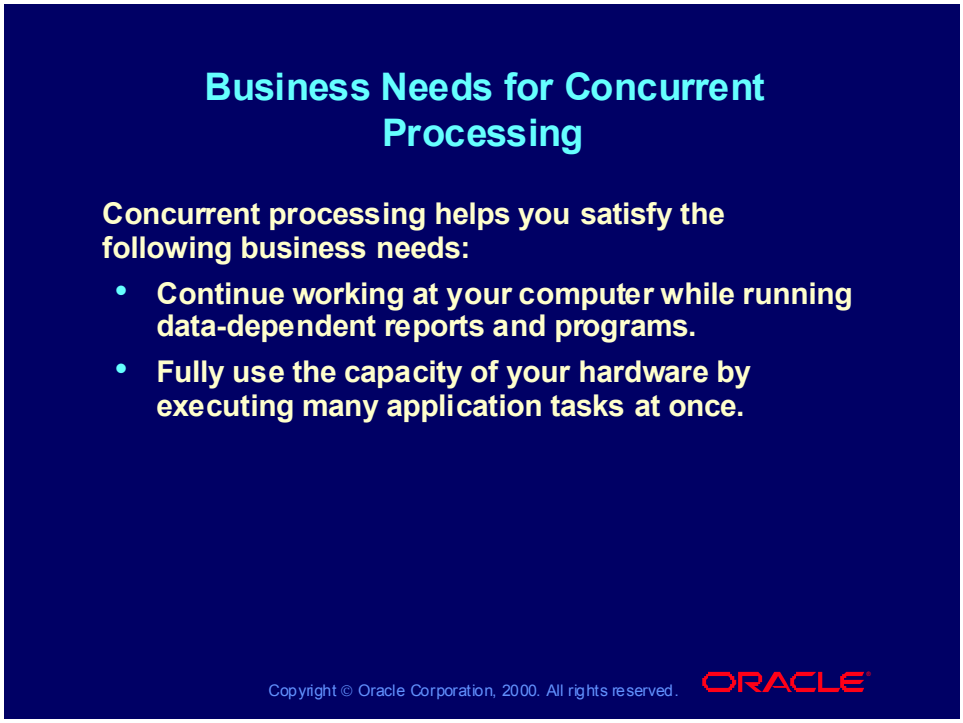


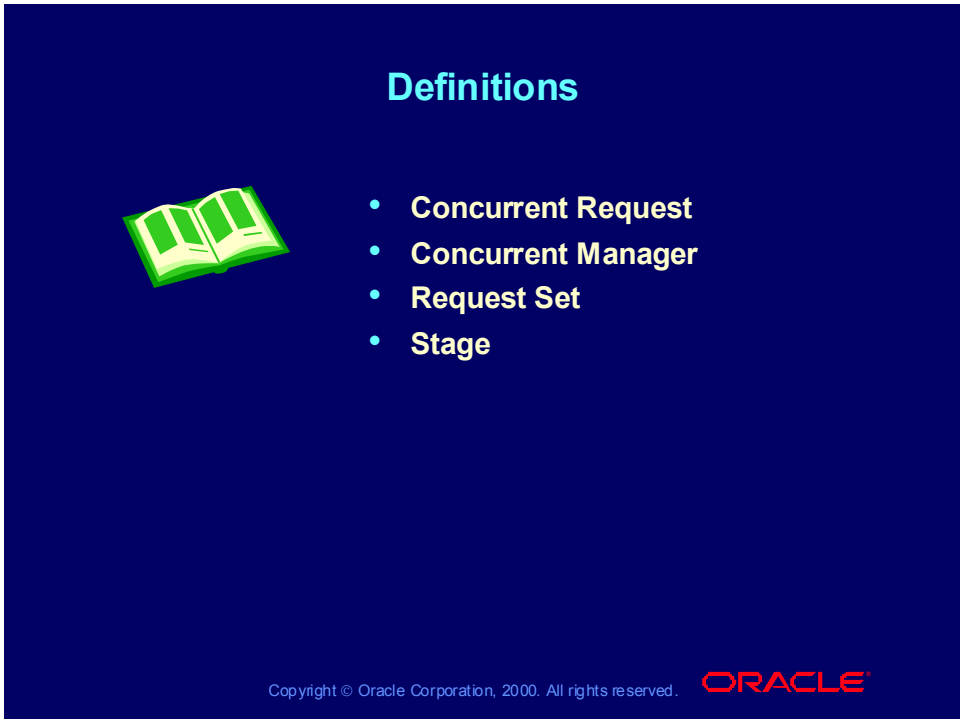


Concurrent Requests, Programs, and Managers

Concurrent processing allows long-running, data-intensive programs to run simultaneously with online operations.

- Oracle Applications programs can run concurrently with each other as well as with other programs; they are referred to as concurrent programs.
- Requests to run Oracle Applications programs—for example, to run an Oracle General Ledger report—are concurrent requests. Each concurrent request inserts a row into a database table maintained by the Oracle Application Object Library.
- Concurrent managers read requests from the requests table and start concurrent programs.





Concurrent Processing Definitions

Concurrent Request

A *concurrent request* is a request that you submit to run a concurrent program as a concurrent process. You issue a concurrent request when you submit a report or program to run using Standard Request Submission (SRS) or when you click an action button in a product-specific submission window.

Concurrent Manager

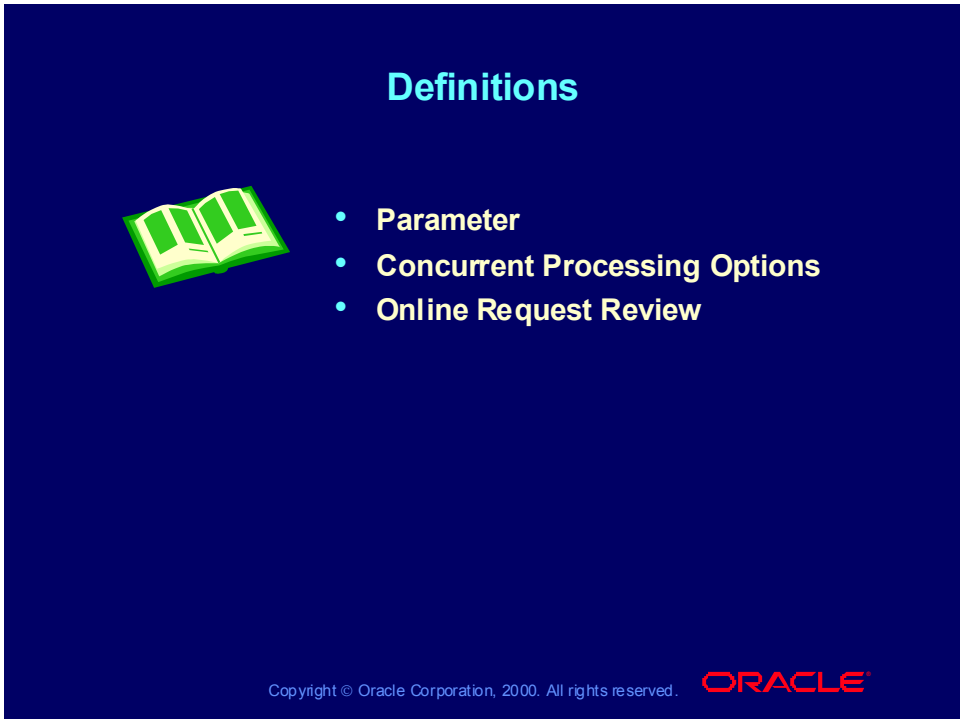
A *concurrent manager* is a component of concurrent processing that monitors and runs requests without tying up your computer.

Request Set

A *request set* is a collection of reports or programs that you group together. You submit the reports or programs in a request set all at once, using one transaction.

Stage

A *stage* is a component of a request set used to group requests within the set. All requests in a stage are run in parallel, while the stages themselves are run sequentially in the request set.



Concurrent Processing Definitions (continued)

Parameter

In SRS, a *parameter* is a report variable whose value you can change each time you run a report. For example, you might run an account balance report and change the account number whenever you run the report. The account number is the parameter for the report.

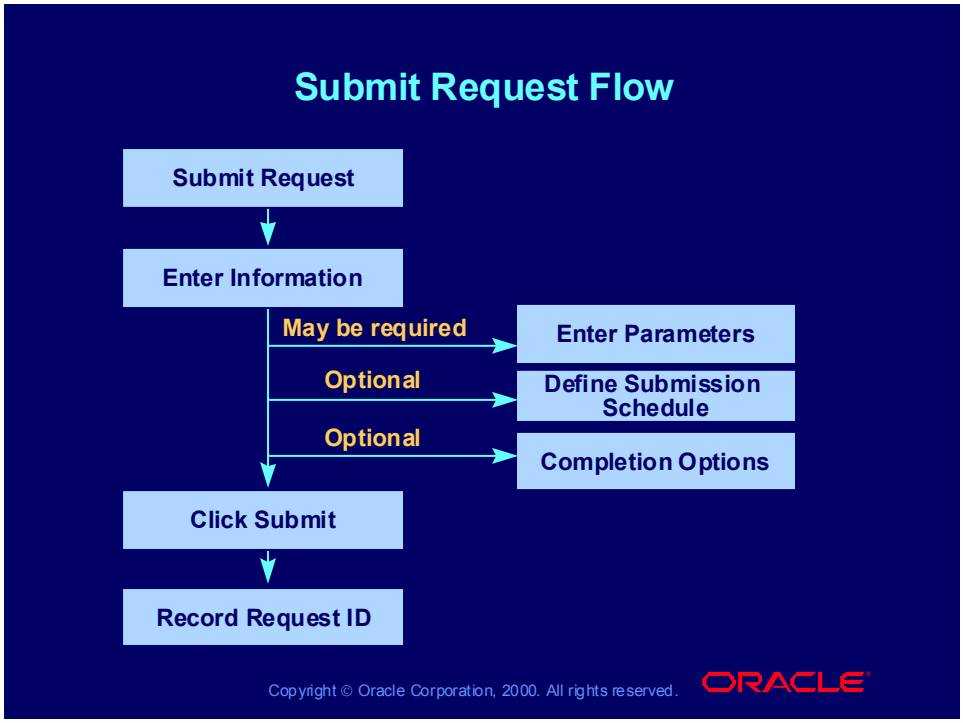
Concurrent Processing Options

You can control and change certain run options for each of your concurrent requests. Not only can you control and change the number of copies to print, which print style to use, and which printer to use, but you can also choose to hold a request from being run, choose a specific date or time to start a request, or choose to save the results of your concurrent request in a standard file format.

Online Request Review

You can review the output and log files from your concurrent requests online. You can see the results of a concurrent request without the delay of printing out the entire report or log file.

Submit Request Flow

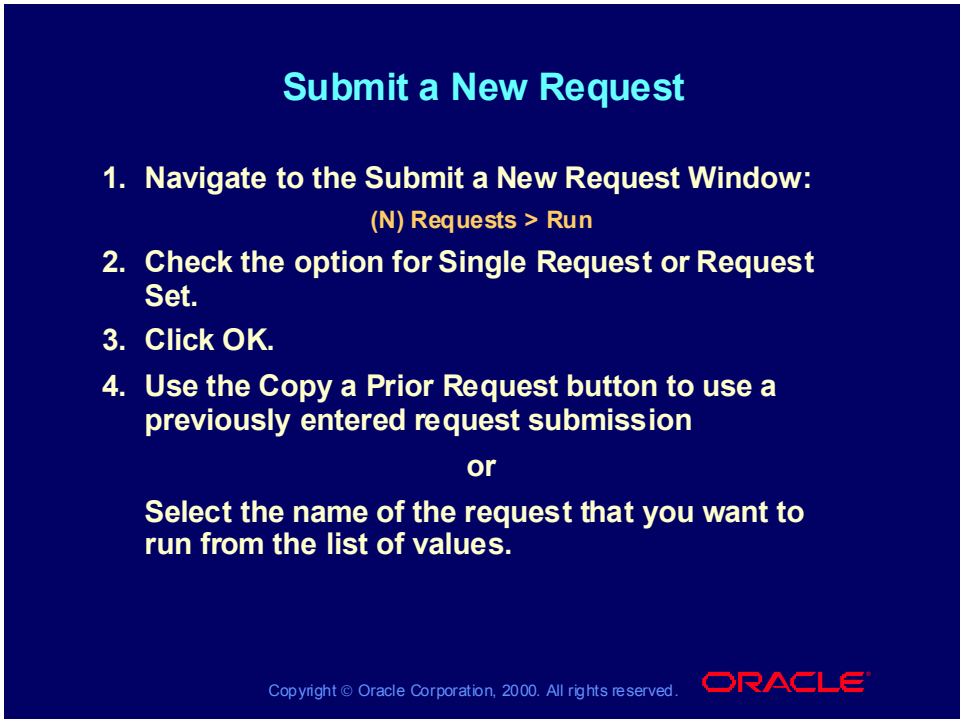


Using Standard Request Submission (SRS)

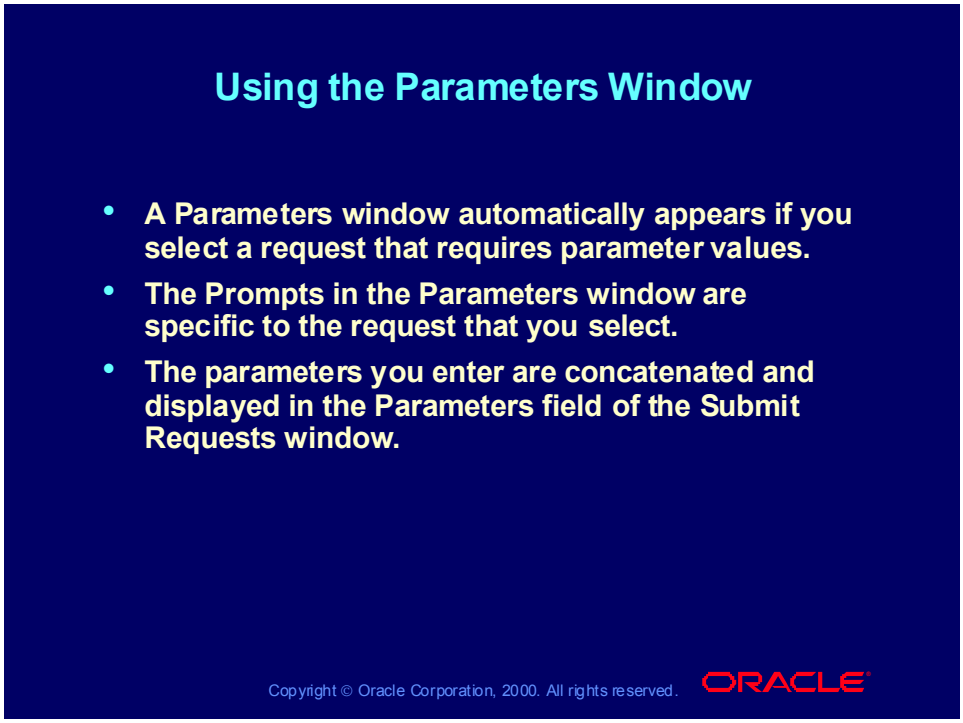
Using Standard Request Submission gives you control over how you can run your requests and request sets.

- There are three elements involved in submitting a request: selecting the request or request set to be submitted, defining a submission schedule, and providing completion options.
- Defining a schedule can be as simple as submitting As Soon as Possible, or it can involve using a more complex schedule that you define when you first submit your request. This schedule can then be used for other requests in the future.
- Completion options enable you to deliver notification to others using Oracle Workflow, as well as specifying which printers and how many copies of the output you want to produce for each request.
- You can submit as many requests as you like from the Submit Request window. You can even submit a request more than once if you want to run the same request with different parameter values.

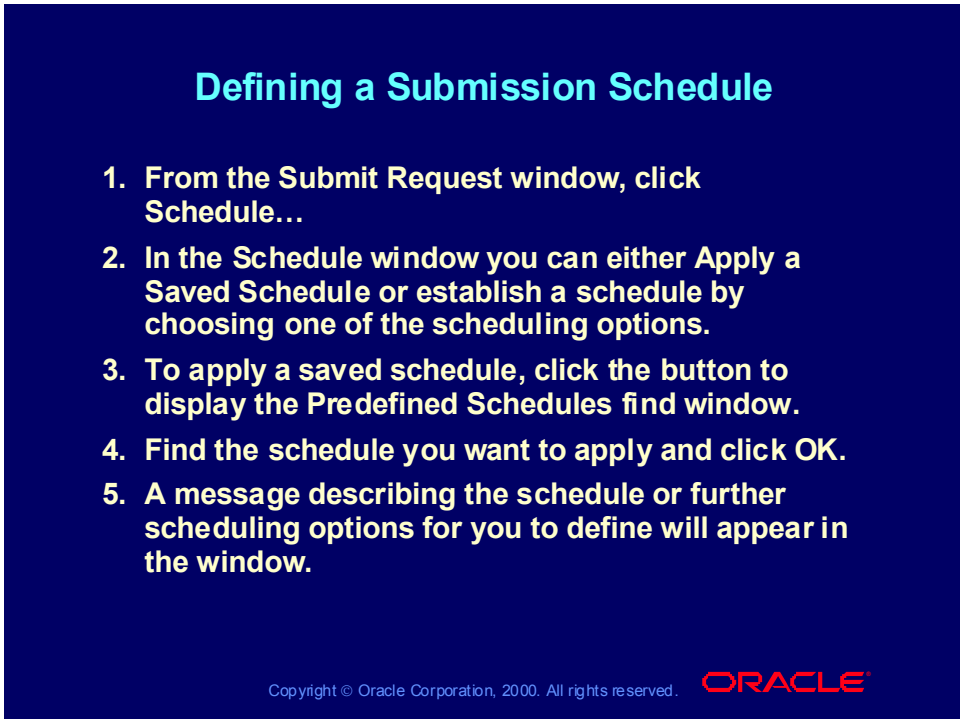
Submit a New Request



The responsibility that you are using determines the request group and the requests that will appear in the list of available requests.



Defining a Submission Schedule



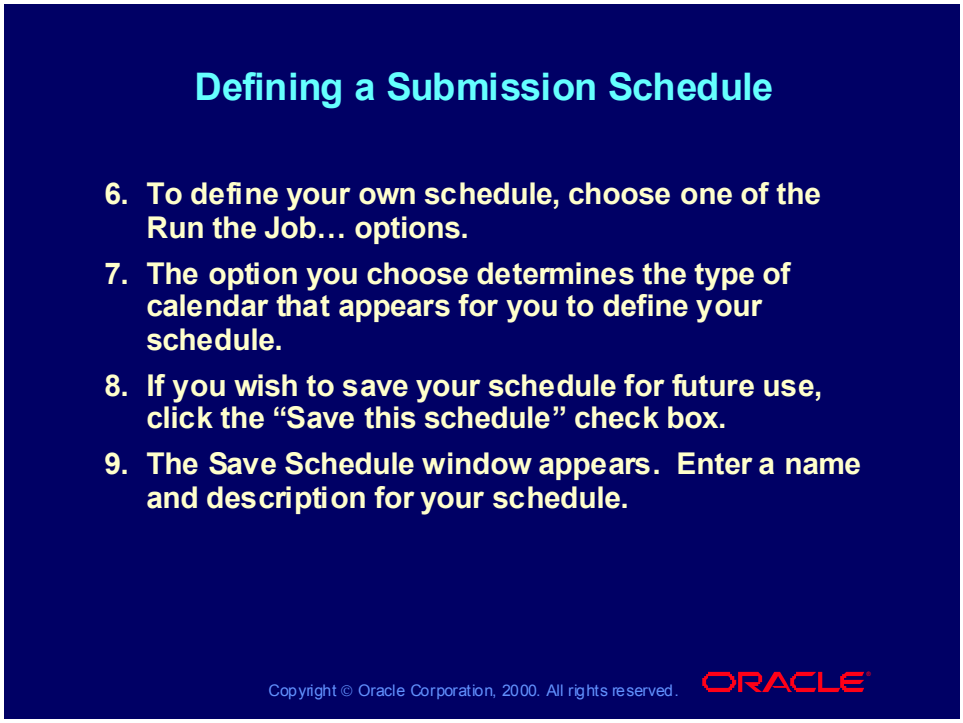
Submitting Requests

(N) Concurrent > Requests > Submit a New Request > (B) Schedule...

The Schedule Window

The scheduling window provides you with several scheduling options. You can choose to reuse a schedule that you previously defined and saved, or define a new schedule. You can define your schedule to run a request as soon as possible, at a specific time, or repeatedly at specific intervals, or on specific days of the week or month.

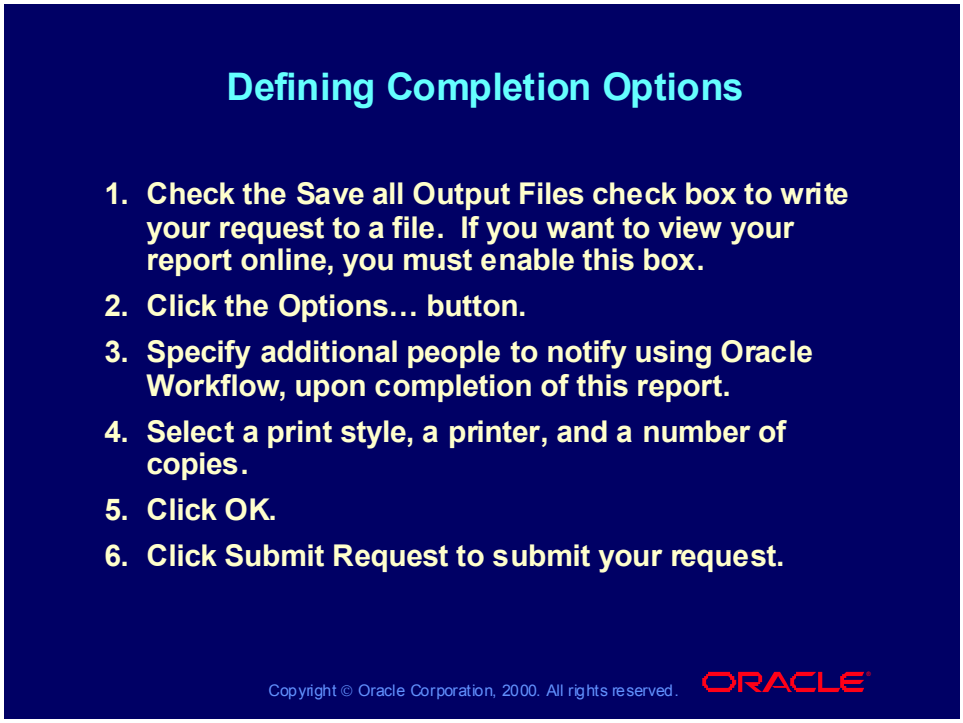
When saving your schedule you must provide a unique name. You can also provide additional information in the Description field.



Define Submission Schedule (continued)

(N) Concurrent > Requests > Submit a New Request > (B) Schedule...

Defining Completion Options



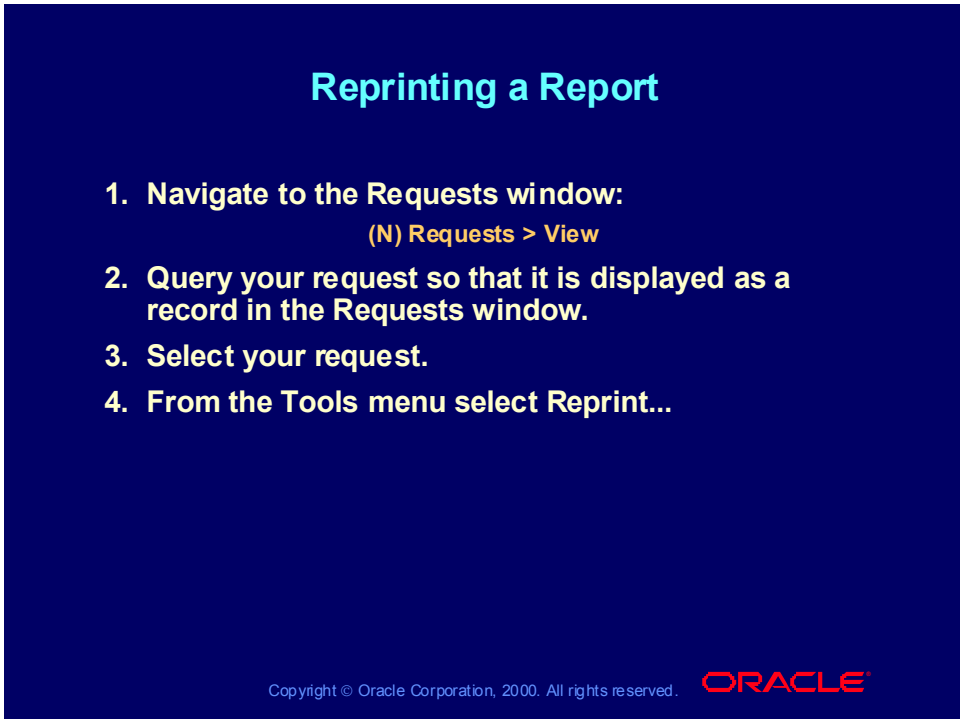
Submitting Requests

(N) Concurrent > Requests > Submit a New Request > (B) OK > (B) Options...

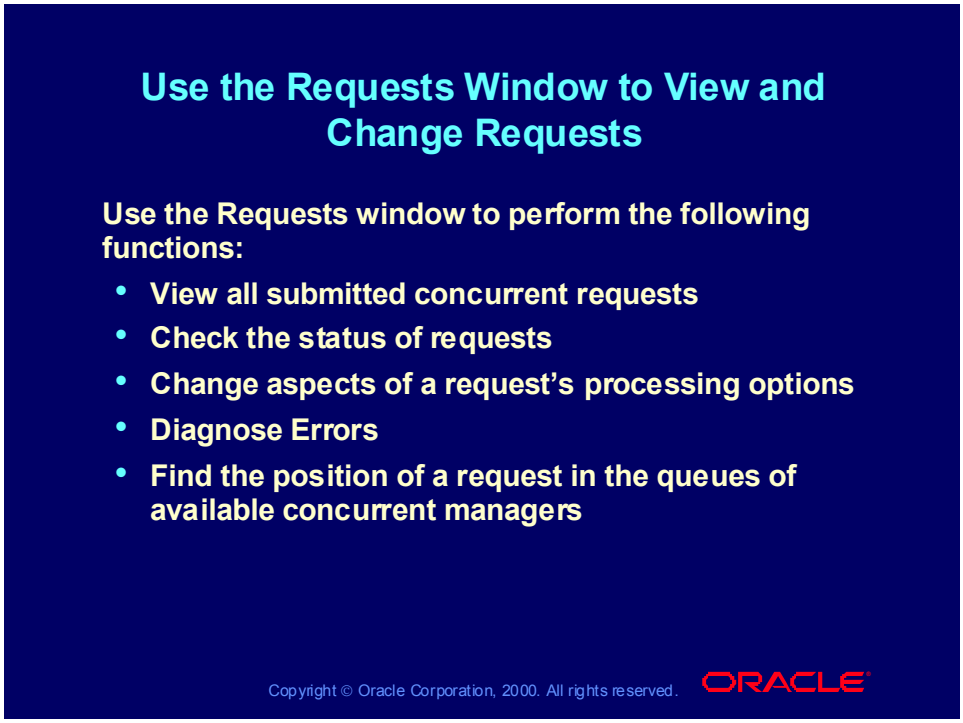
Request ID

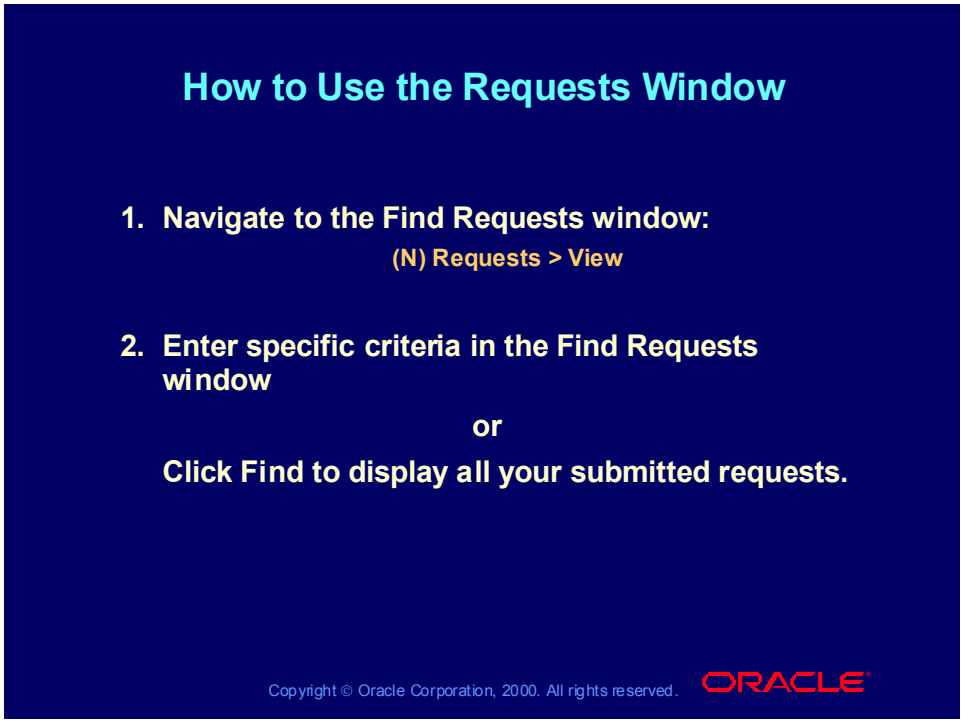
Request ID

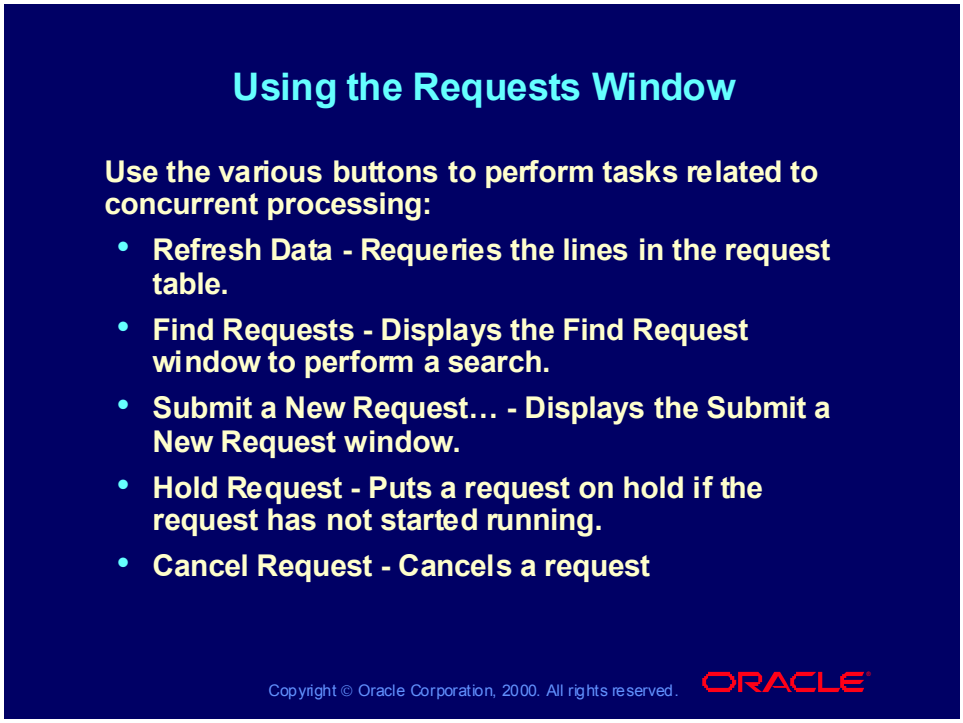
- Oracle Applications assigns a request ID to each request submission so that you can identify your request.
- Use the request ID to query for your request output in the Requests window.
- Oracle Applications assigns a new request ID to each resubmission of a request and displays the request ID of the previous request in the log file.

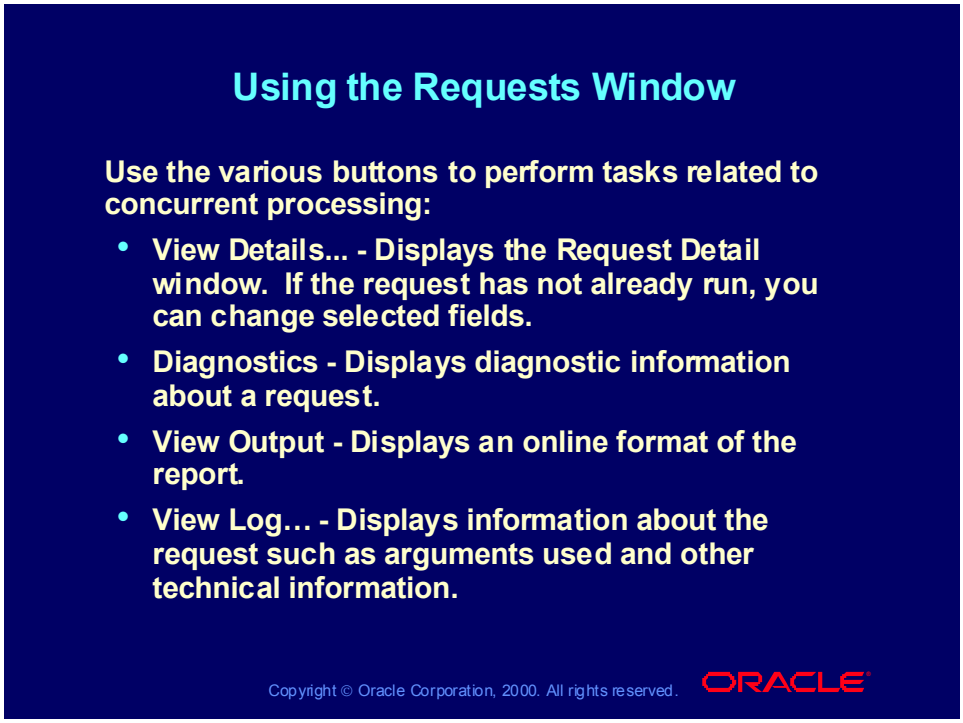


Use the Requests Window to View and Change Requests









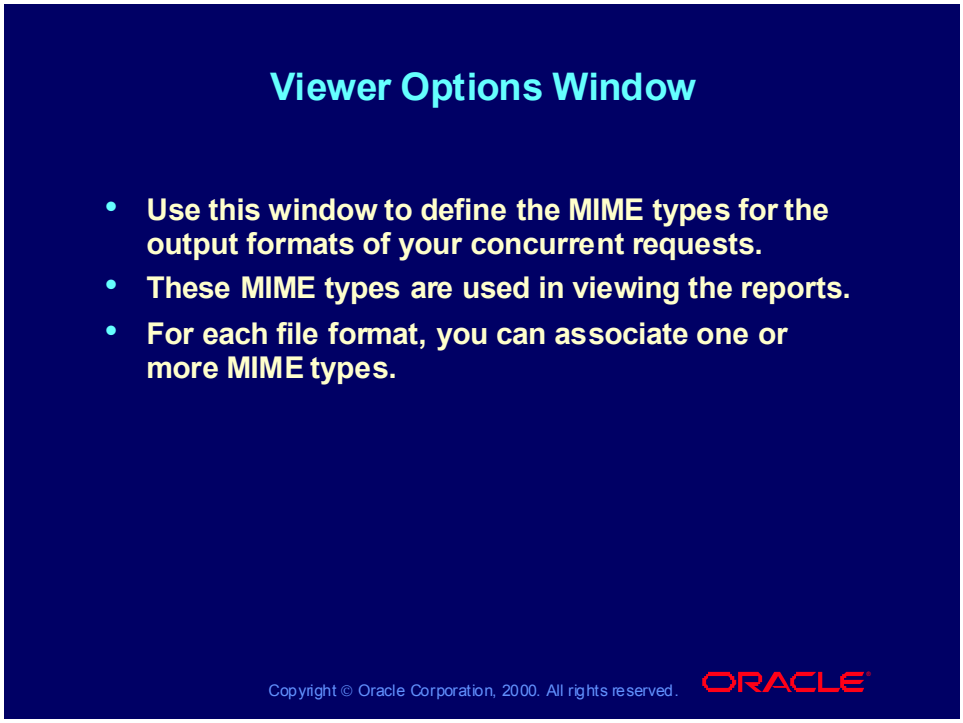
Using the Requests Window (continued)

In order to use the View Output button, your program must have paper output. If the report file format you selected for your request has multiple MIME types associated with it, clicking the View Output button will display a window prompting you to select the MIME type you wish to use to view your output.

For more information on associating file formats with MIME types see:

(Help) Applied Technology > Oracle Applications System Administration > How to View Request Status and Output > Defining the Reports Viewer.

Viewer Options Window



Use the Viewer Options Window to Define MIME Types

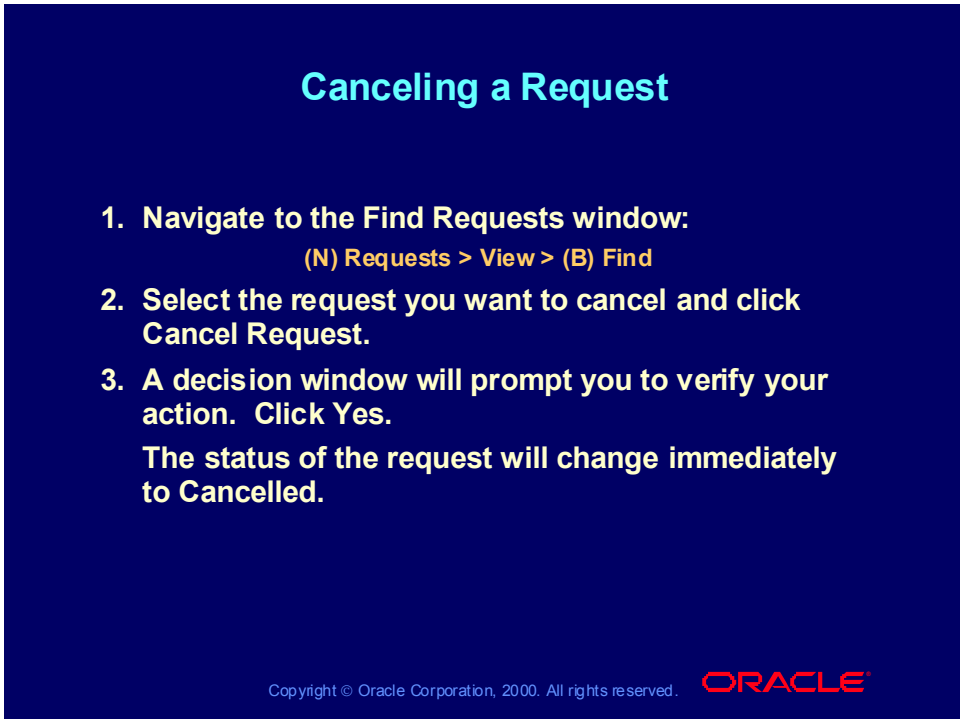
(N) Install > Viewer Options

You can use one MIME type to view reports of a certain format. For example, you can view all text format reports in Microsoft Word. MIME types for supported formats for a particular user are set by several profile options. Seeded MIME types are:

- Viewer: Application for HTML
- Viewer: Application for PCL
- Viewer: Application for PDF
- Viewer: Application for PostScript
- Viewer: Application for Text

This MIME type is sent to a browser window when the user views a report of that file format.

Canceling a Request

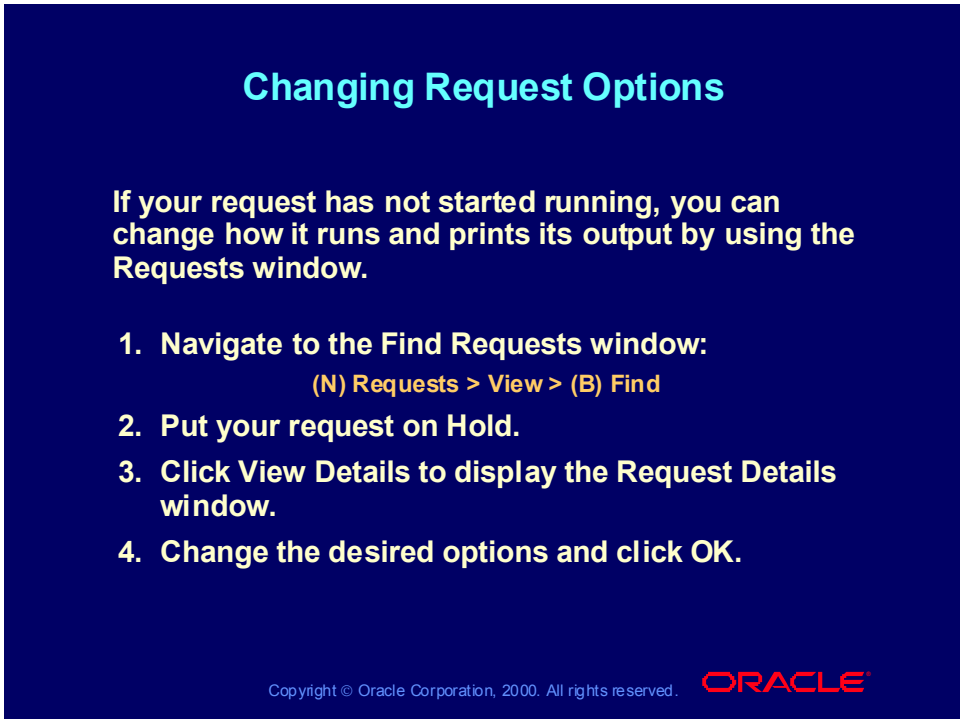


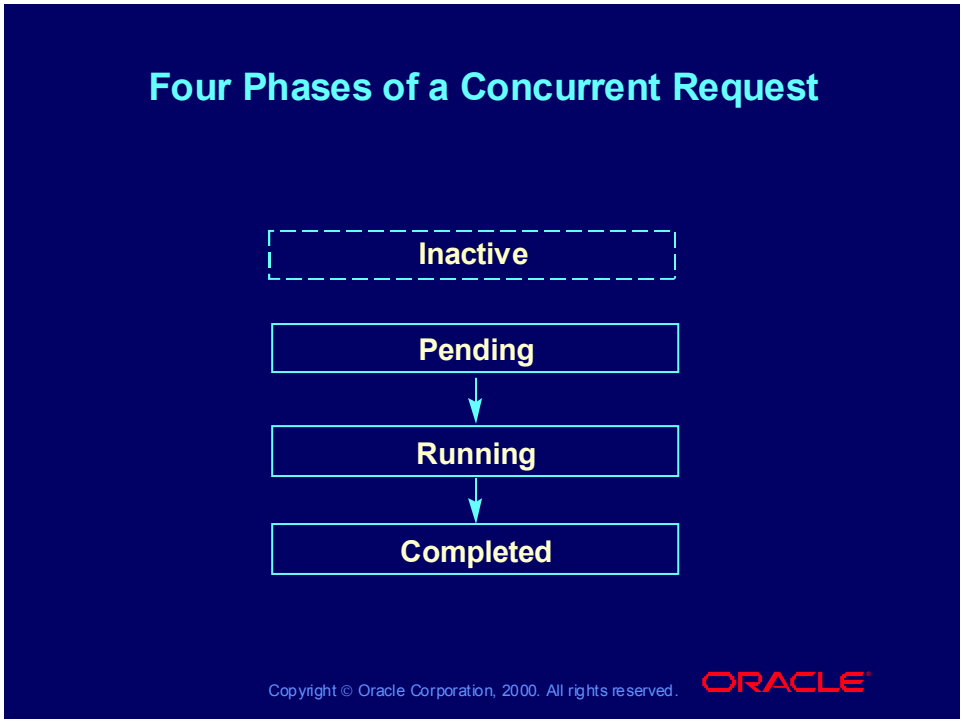
Canceling a Request That Has Not Yet Completed

If you cancel a request set, then Oracle Applications automatically cancels all requests in the set.

Holding a Request That Has Not Started Running

Only requests that have not started running can be put on hold.





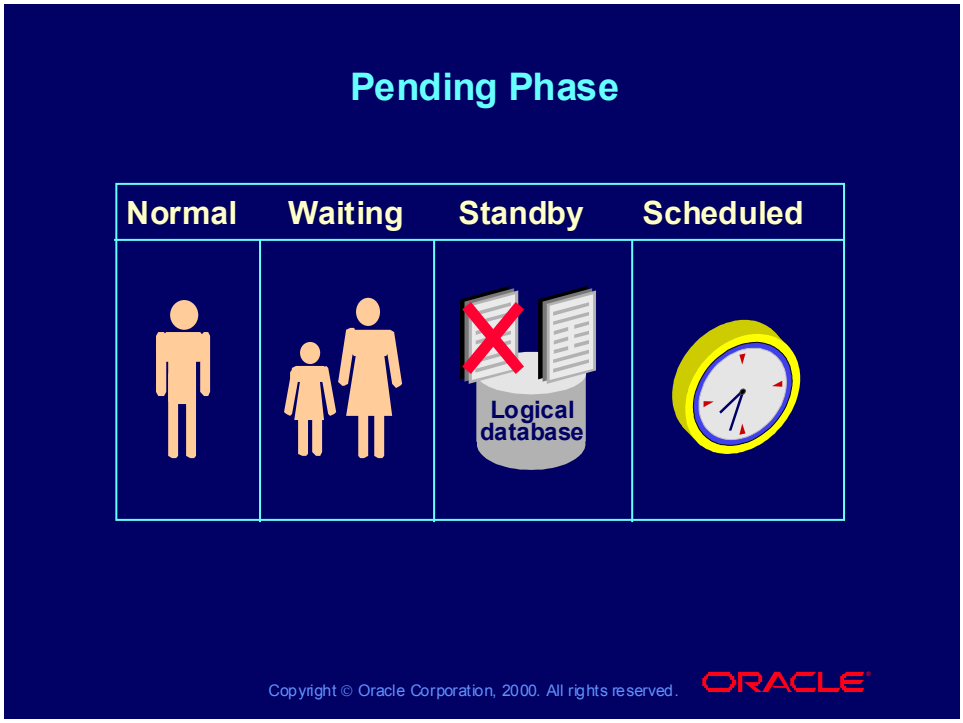
Four Phases of a Concurrent Request

The system administrator must periodically review the status of Oracle Applications programs to determine what a particular program's status is in the lifecycle of a request.

A concurrent request has a lifecycle of either three or possibly four phases:

- **Pending:** The request is waiting to be run.
- **Running:** The request is running.
- **Completed:** The request has finished execution.
- **Inactive:** The request cannot yet be run.

Pending Phase

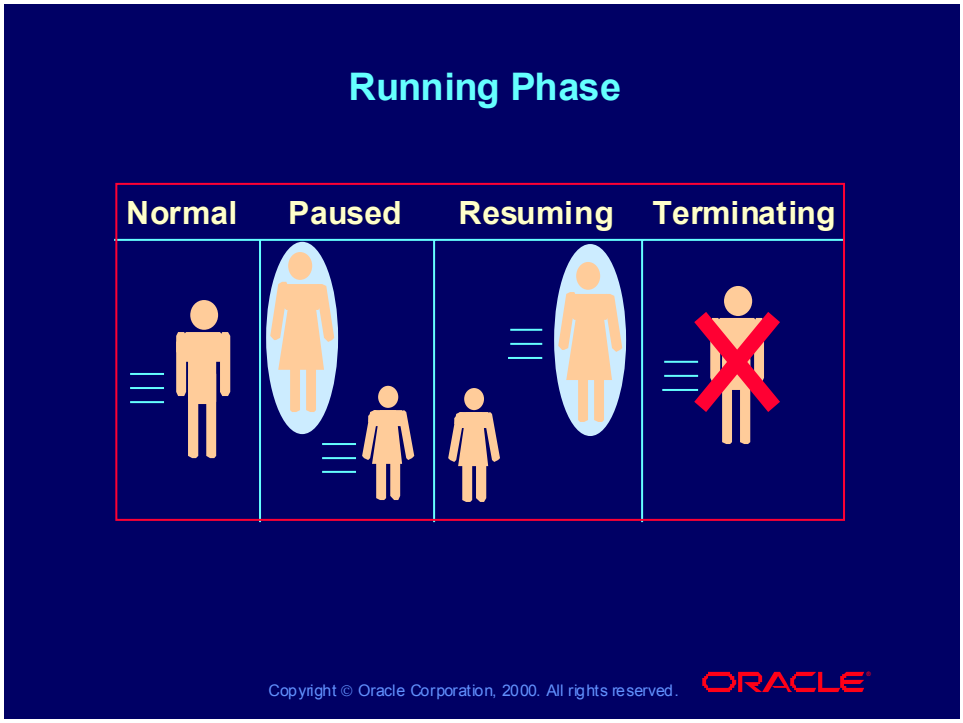


Pending Phase

A program in the Pending phase can be in one of four statuses:

- **Normal:** The program is waiting for an available manager.
- **Waiting:** A child program is waiting for a parent to mark it ready to run.
- **Standby:** A program is waiting for another incompatible program in the same logical database to complete.
- **Scheduled:** A program's scheduled start time has not yet elapsed.

Running Phase

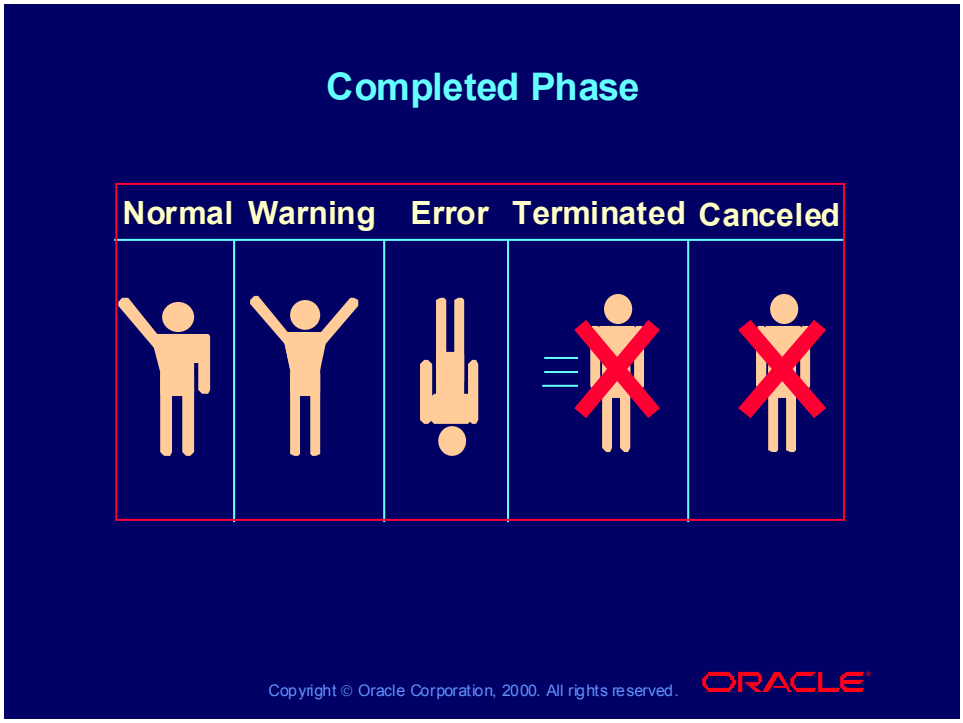


Running Phase

A program in the Running phase can be in one of four statuses:

- **Normal:** Program is in progress.
- **Paused:** A parent program is waiting for one or more child programs to complete.
- **Resuming:** A parent program is continuing after the completion of one or more child programs.
- **Terminating:** The program is being terminated.

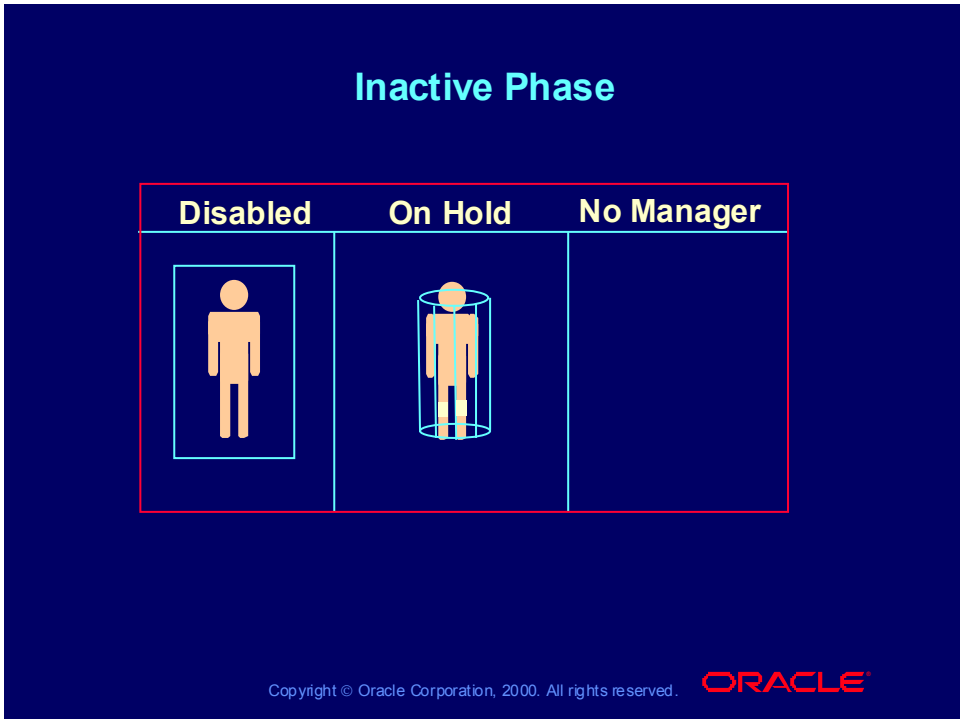
Completed Phase



Completed Phase

A program in the Completed phase can be in one of five statuses:

- **Normal:** Program completed successfully.
- **Warning:** Program completed successfully but with warning messages.
- **Error:** Program failed to complete successfully.
- **Terminated:** A running program was terminated.
- **Canceled:** A pending or inactive program was canceled before it started.

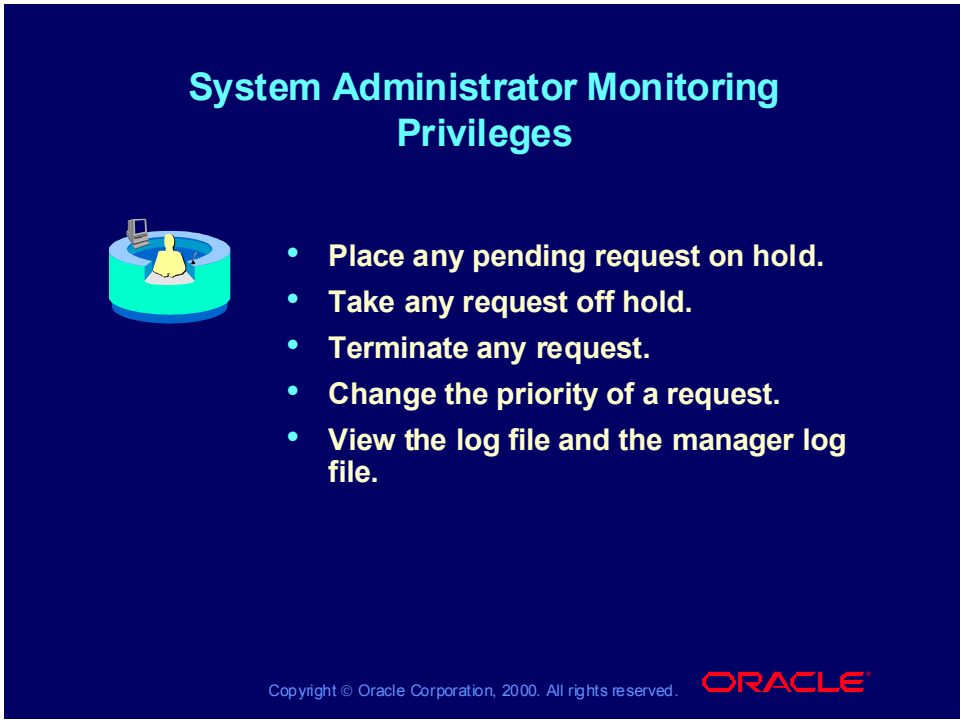


Inactive Phase

A program in the Inactive phase can be in one of three statuses:

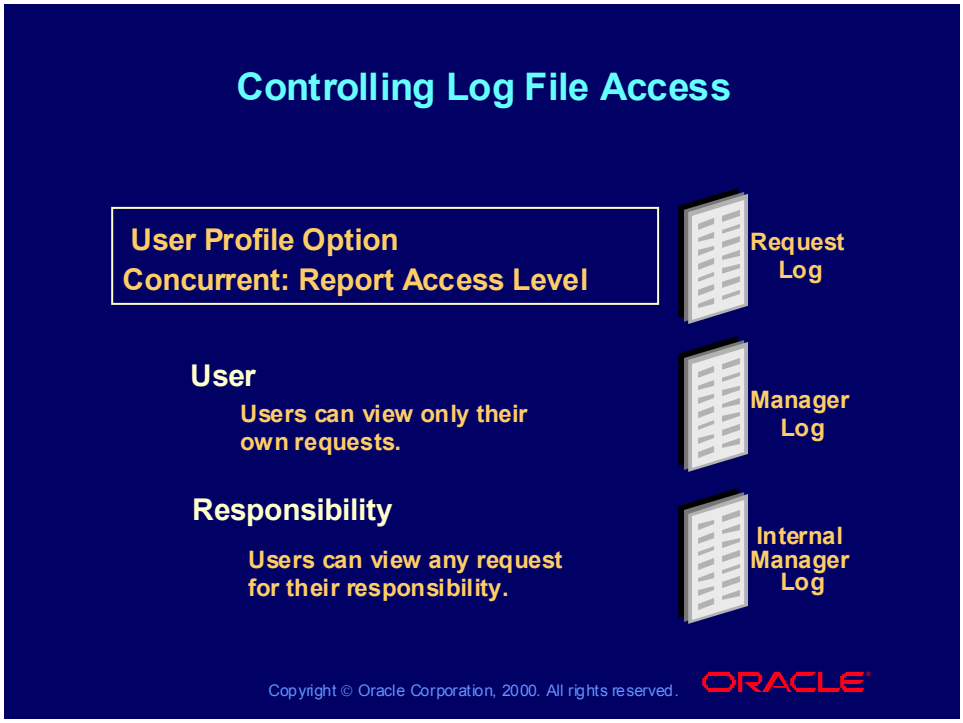
- **Disabled:** The requested program has not been enabled for execution.
- **On Hold:** The requested program has been placed on hold.
- **No Manager:** There is no manager defined to run this type of request.

System Administrator Monitoring Privileges



Monitoring Privileges of the System Administrator

The system administrator's privileges extend beyond those of the end user. The system administrator can perform all the operations shown on the slide. However, the system administrator cannot view the actual output of another user's report.



Log File Access

The user profile option Concurrent: Report Access Level determines the report and log file access privileges for end users.

User: Access to reports and diagnostic log files is limited to the user who submitted the reports.

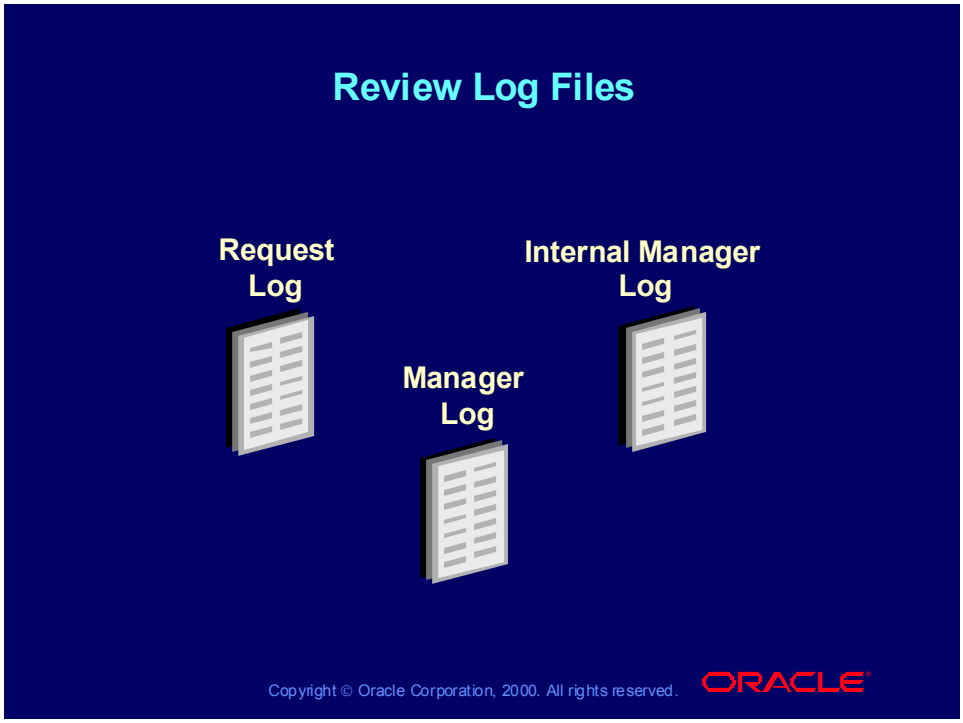
Responsibility: Access to reports and diagnostic log files is based on the responsibility that the user is currently using.

A user's report and log file access privileges include:

- Viewing the completed report output online
- Viewing the diagnostic log file online (also a system administrator privilege)
- Reprinting a completed report (if Concurrent: Save Output profile is Yes; also a system administrator privilege)

For pending requests, only the submitter of the request or the system administrator can view the details of the request.

Review Log Files

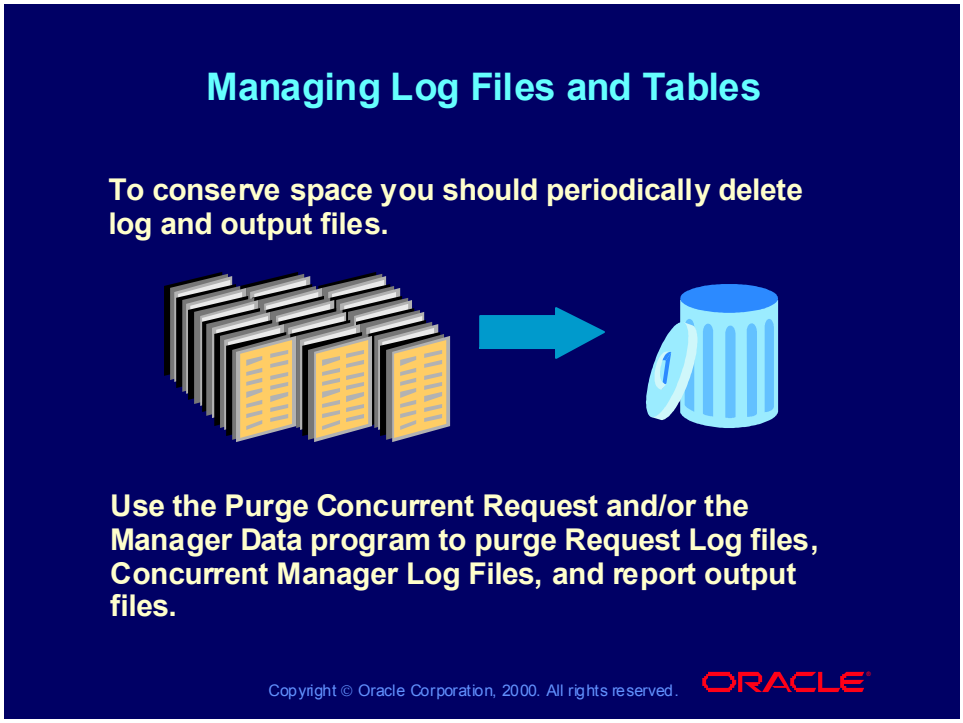


Log File Descriptions

Request Log When a user submits a request in Oracle Applications, a concurrent manager processes the request and creates a diagnostic log file. Request Log files document the execution of a concurrent program running as the result of a concurrent request. The file contains the program parameters, the start and completion times, and any error messages. Both the user and the system administrator can access this file.

Manager Log Manager Log files document the performance of a concurrent manager that is running a request. The Manager Log lists each request processed by this manager in descending order by start date and time. This file is accessible by both the user and the system administrator.

Internal Manager Log File This file documents the performance of the Internal Concurrent Manager. It displays parameter values that are loaded when the Internal Concurrent Manager is started (STARTMGR command) and records the time that each concurrent manager is started and when each process monitor session (or PMON) cycle is initiated. During each PMON cycle, the Internal Concurrent Manager verifies the correct operation of each defined concurrent manager. Only the System Administrator can access the Internal Concurrent Manager Log file.



Managing Log Files and Tables

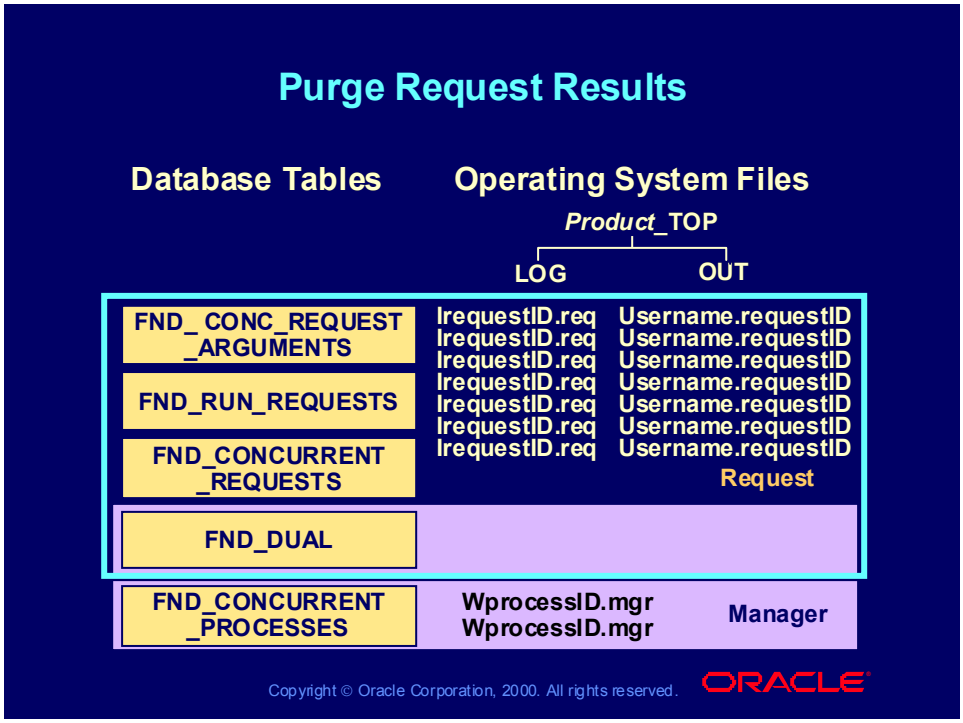
Purging Log Data Eventually the tables holding log information consume disk space with data that may no longer be of use to you. To conserve disk space, you should periodically delete Oracle Applications log files and output files. Your company's MIS department and application users should agree on an archiving and file retention policy that is appropriate for your organization.

Use the Purge Concurrent Request and/or Manager Data program to purge Request Log files, Concurrent Manager Log files, and report output files from your product directories maintained by the operating system, as well as records from Application Object Library tables that contain history information about concurrent requests and concurrent manager processes.

Scheduling Purge Submissions Run the Purge Concurrent Request and/or Manager Data program once and automatically resubmit the program to run at specific time intervals. Use the Parameters window to specify various criteria with which you can control the timing and frequency of program execution.

Loss of Audit Data Be aware that purging concurrent request information loses audit details used by the Sign-on Audit Concurrent Requests Report.

Purge Request Results

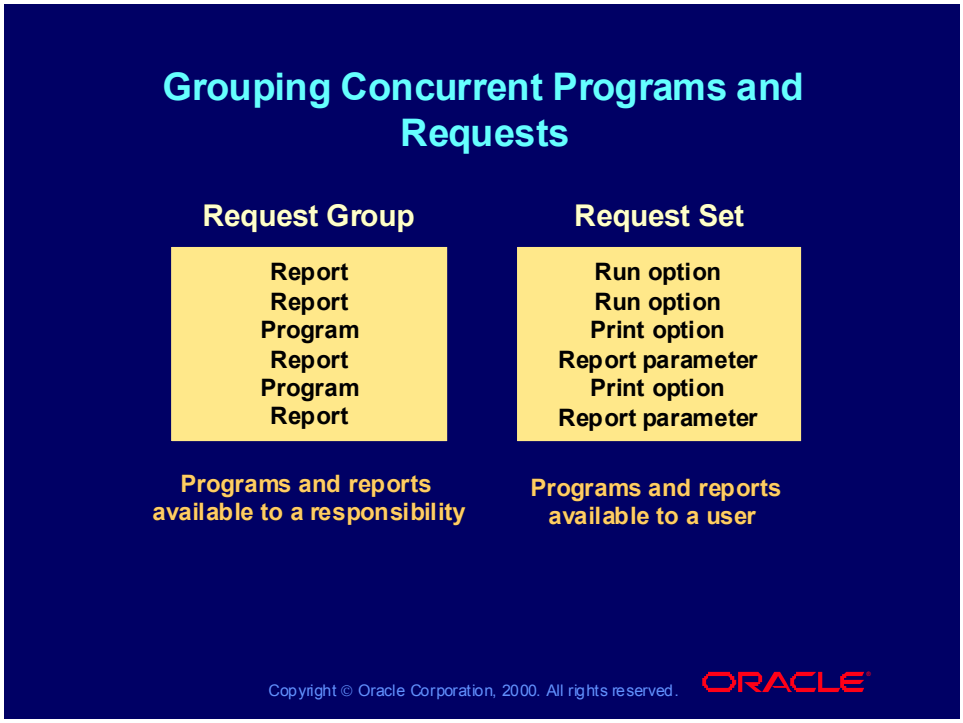


Results of Purge Requests

The slide shows the database tables and the operating system files affected by a purge request. On the Parameters form of the Purge Concurrent request and/or Manager Data program, you can specify that either request data (Entity=Request) or manager data (Entity=Manager) be purged. The slide shows the effects of the different requests.

Database Table Descriptions

- FND_CONC_REQUEST_ARGUMENTS: This table records arguments passed by the concurrent manager to each program it starts running.
- FND_RUN_REQUESTS: For submitted report sets, this table stores information about the reports in the report set and the parameter values for each report.
- FND_CONCURRENT_REQUESTS: This table contains a complete history of all concurrent requests.
- FND_DUAL: This table records when requests do not update database tables.
- FND_CONCURRENT_PROCESSES: This table records information about Oracle Applications and operating system processes.



Grouping Concurrent Programs and Requests

Grouping concurrent programs and other requests together allows you to control access and streamline processing. In Oracle Applications, you group programs and requests into request groups and request sets.

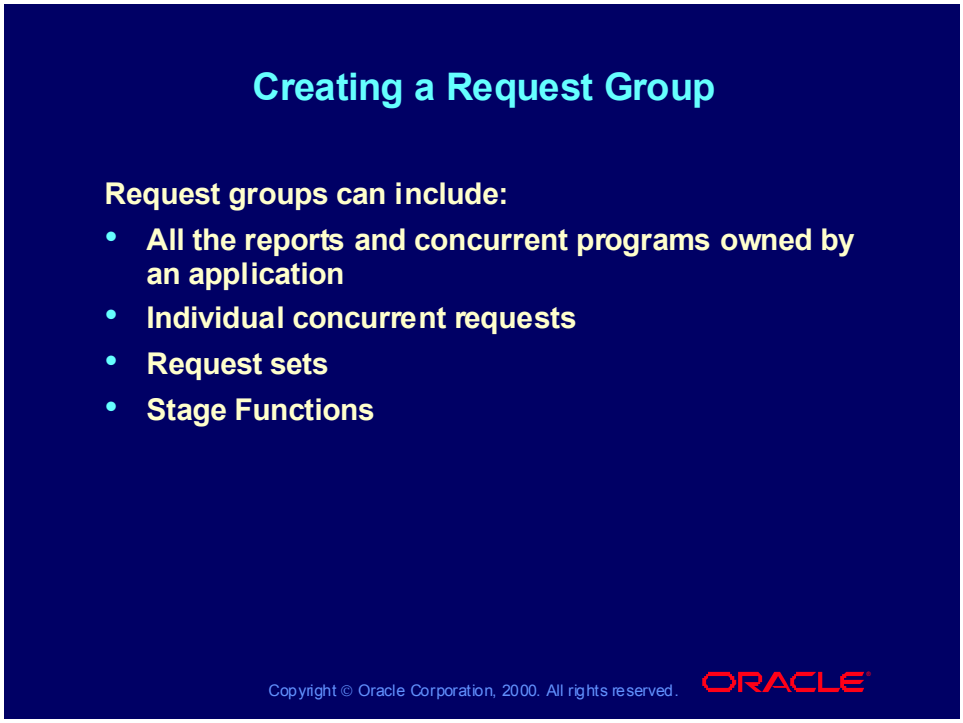
Request Groups

A request group is a collection of reports and other concurrent programs. You use request groups to implement security at the responsibility level. Request groups are normally associated with a responsibility, in which case they are referred to as request security groups. Any user of a responsibility has access to the reports in that responsibility's request security group.

Additionally, you can define a request group to have an access code. Users must supply this code to access the reports in the coded request group.

Request Sets

Like a request group, a request set is a collection of concurrent programs. Request sets can also have run and/or print options, which apply to every member of the set. Programs in a request set can share parameters; therefore a parameter value needs to be entered only once for multiple programs. Any user can create a request set.



Request Group Creation

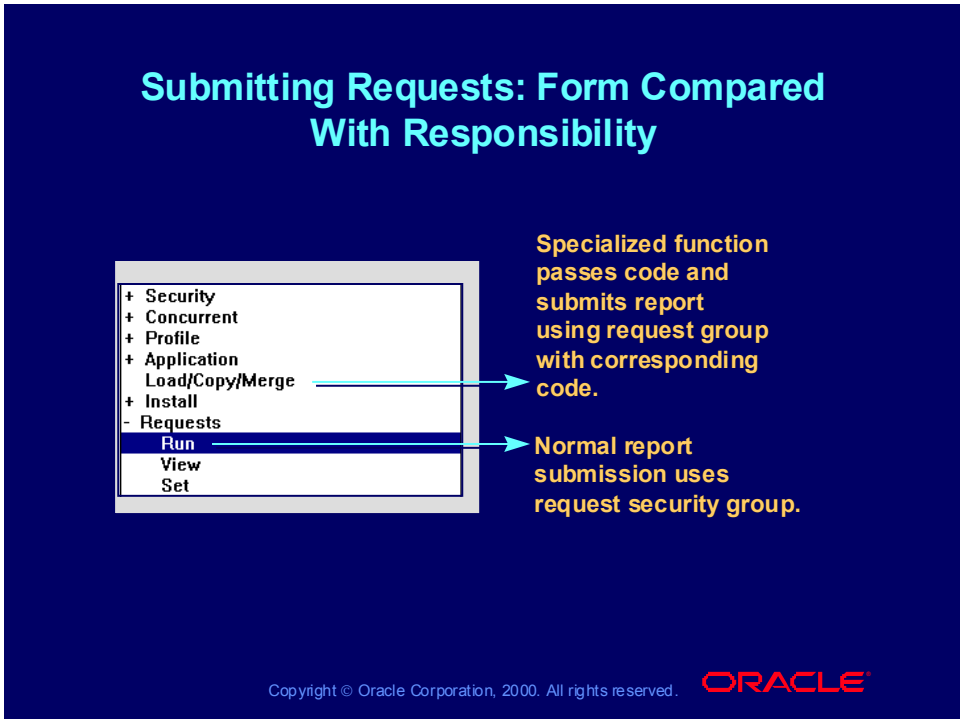
(N) Security > Responsibility > Request

An application name is required when defining the request set. This application name and the request group name uniquely identify this request set. The application name does not prevent you from assigning reports and report sets from other applications to this group.

For more information see:

(Help) Applied Technology > Oracle Applications System Administration > Request Groups Window.

The code must not contain any spaces. The combination of the application and the code identify the request group.



Submitting Requests: Form Versus Responsibility

The request processing is different depending on whether you are using a normal request group or a coded request group.

Responsibility-Based Access

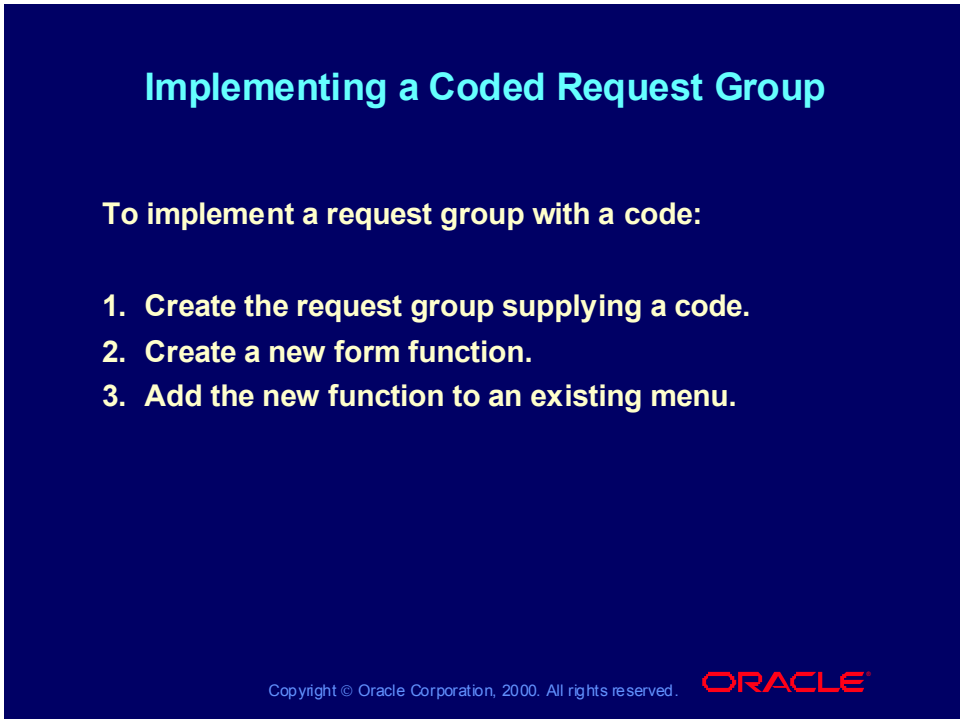
This is the typical way a user submits a report. The menu prompt Run does not pass any arguments to the Submit Requests form when the prompt is chosen.

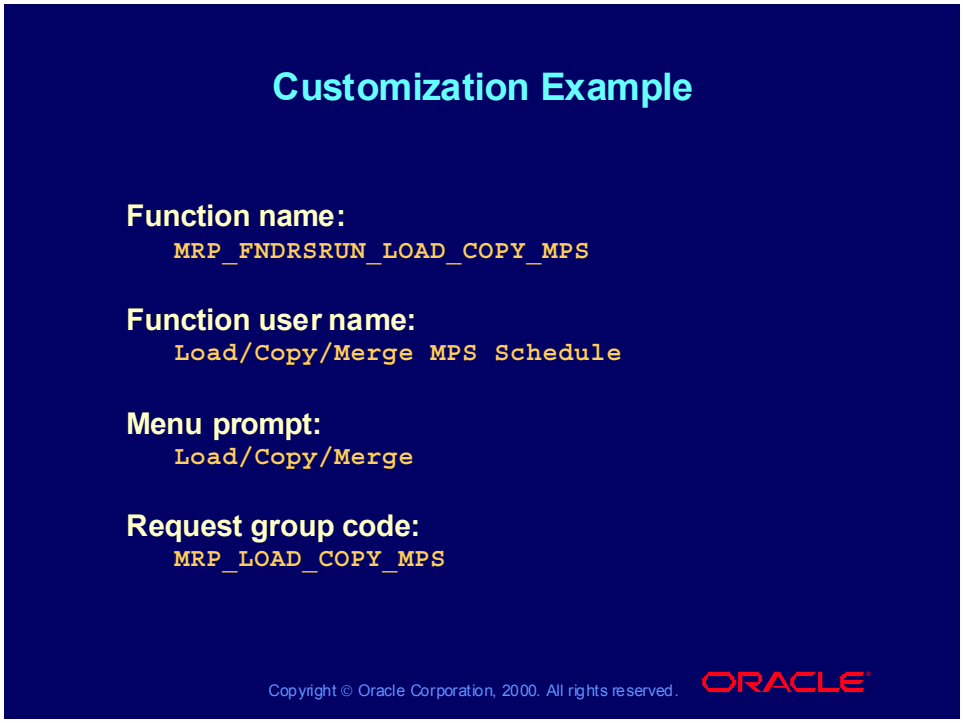
The list of values includes all the programs in the responsibility's request security group.

Form-Based Access

This type of access uses a coded request group. In this method, when a modified menu prompt is chosen, it calls a form function to pass an argument (the code) to the Submit Requests form.

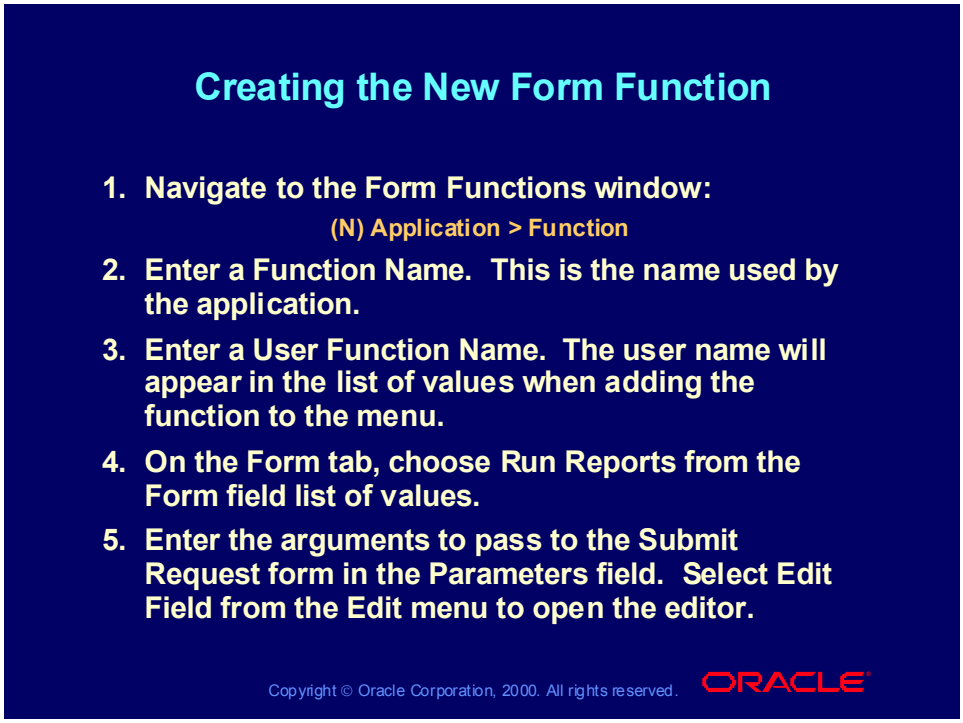
The only programs displayed in the Submit Requests list of values are those defined to the coded request group.





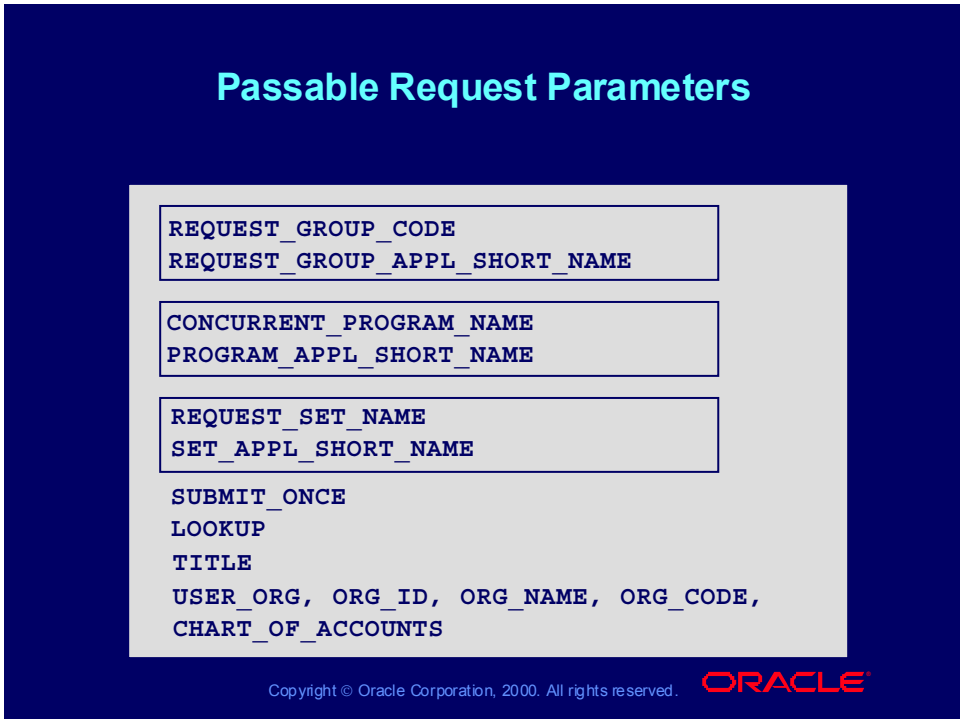
Customization Example

The slide shows the values that are used in the following example.



Creating the Form Function

Type is a nonvalidated field used to enter a description of the function's use.

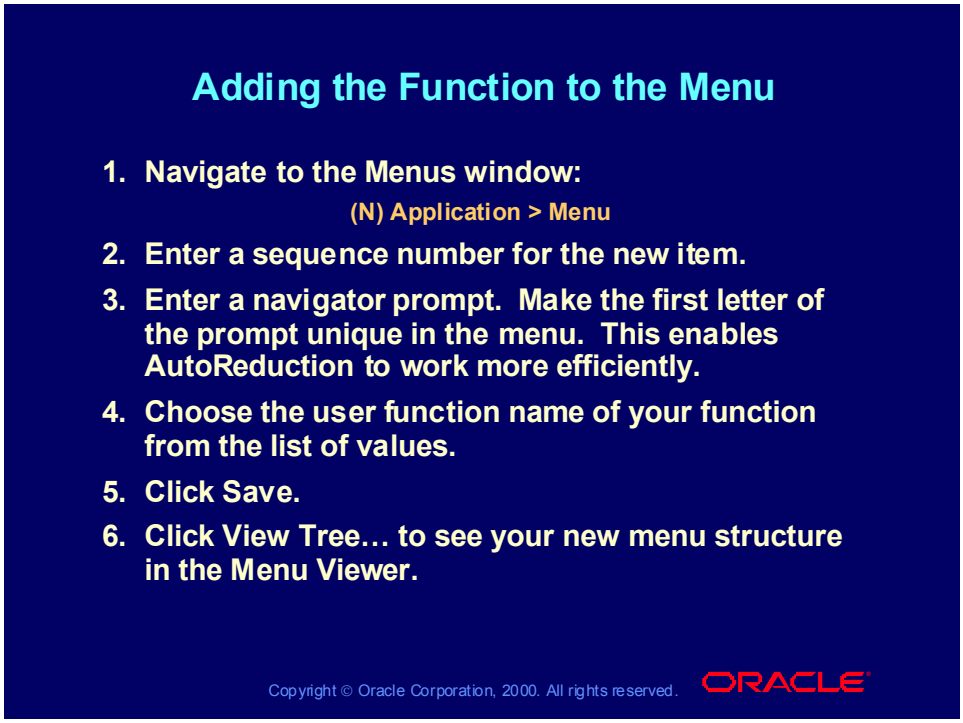


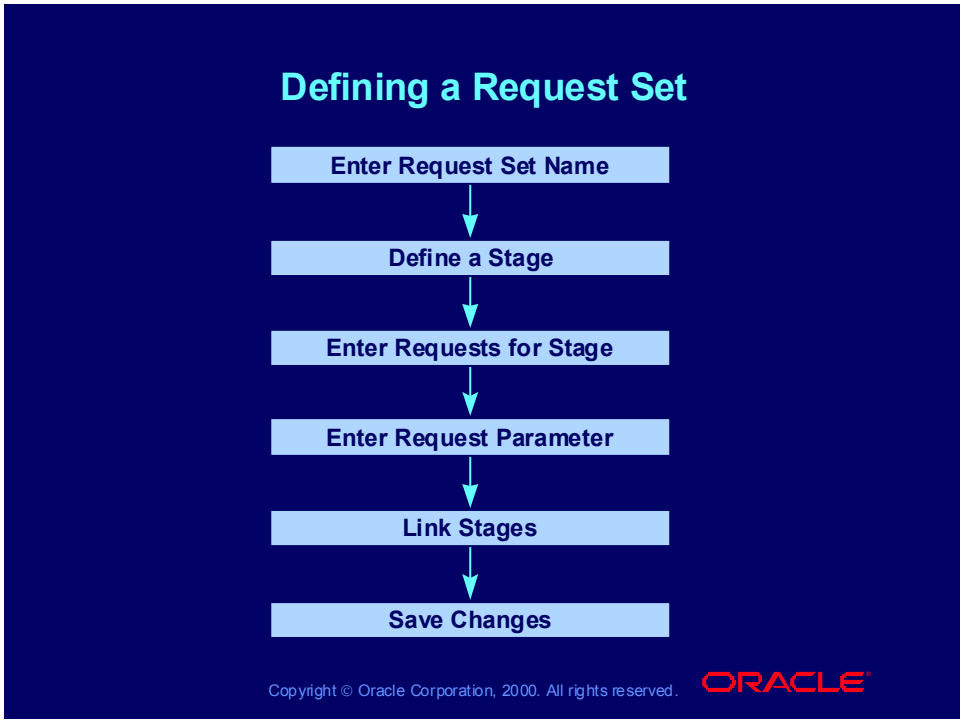
Passable Request Parameters

The slide shows the parameters you can pass in your new function. Several of the parameters are paired; these parameters must be used together. Remember that when the request group was created, it was associated with an application. You must pass both the code and the short name of the application for the system to identify the correct request group.

For a complete explanation of these parameters, see:

(Help) Applied Technology > Oracle Applications System Administration >
Overview of Concurrent Programs and Requests >
Organizing Programs into Request Groups >
Customizing the Submit Requests Window,
Customizing the Submit Requests Window using Codes.

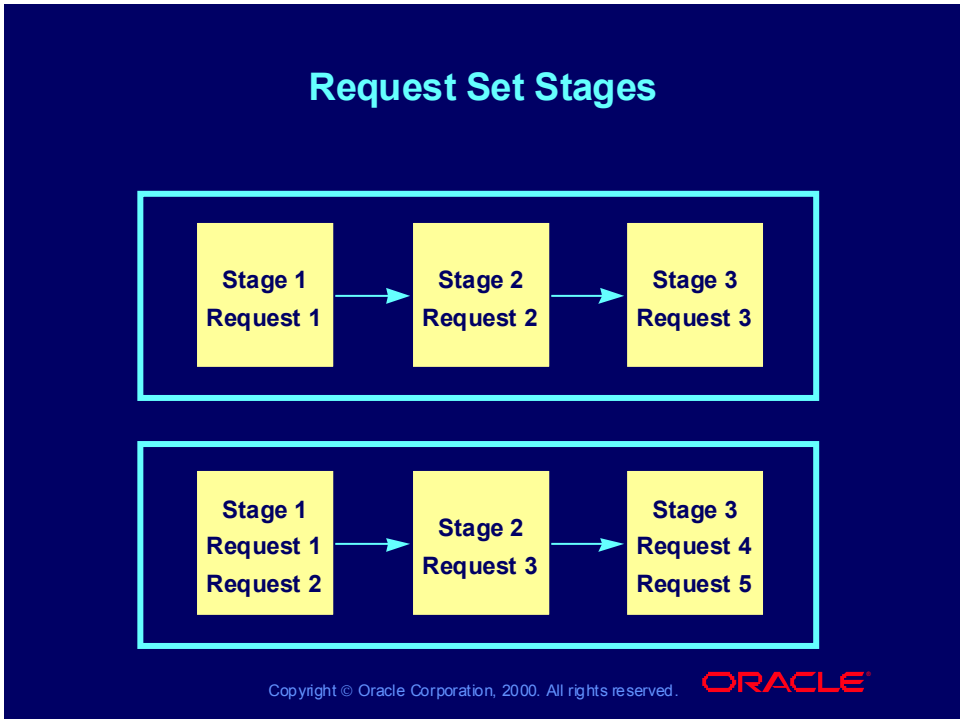




Defining Request Sets

By defining request sets, you can submit the same set of requests regularly with a single transaction. Use the Request Set window to create and edit request sets. You can also use the Request Set Wizard to create simple request sets.

Request Set Stages



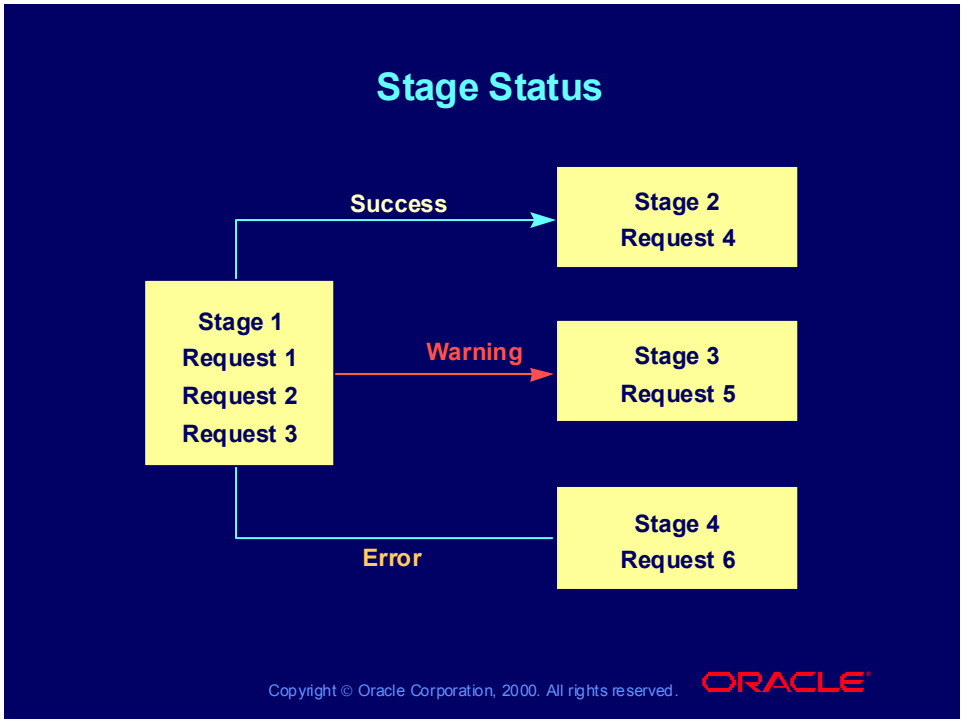
Organizing Requests with Stages

Request sets are divided into one or more *stages,* which are linked to determine the sequence in which your requests are run. Each stage consists of one or more requests that you want to run in parallel (at the same time in any order). For example, in the simplest request set structure, all requests are assigned to one stage. This allows all requests to run in parallel.

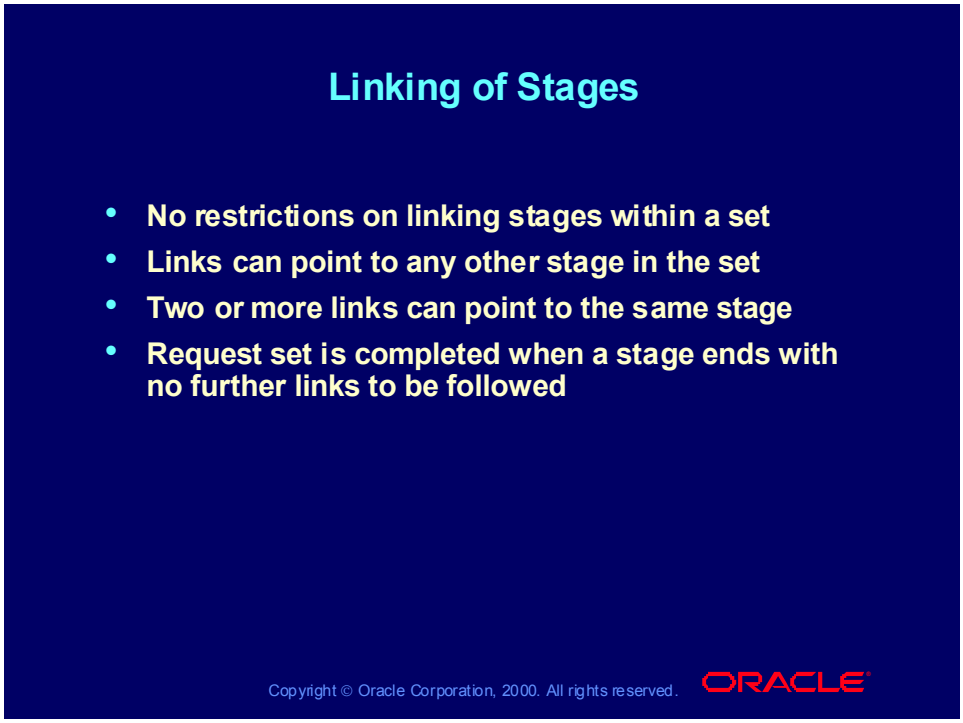
To run requests in sequence, assign requests to different stages and then link the stages in the order that you want the requests to run.

The concurrent manager allows only one stage in a request to run at a time. When one stage is complete, the next stage is submitted. A stage is not considered complete until all of the requests in the stage are complete. One advantage of using stages is the ability to run several requests in parallel and then move sequentially to the next stage. This enables you to create more versatile and efficient request sets.

Stage Status



Linking of Stages

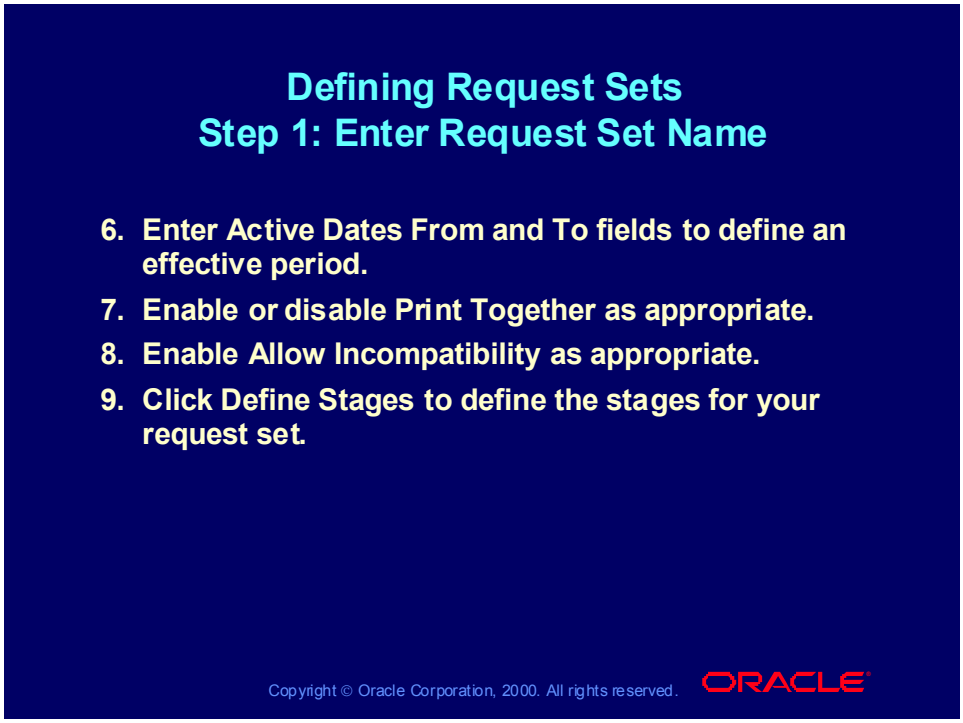


Defining Request Sets Step 1: Enter Request Set Name

Defining A Request Set

The Owner field defaults to your user name and can be changed only by your system administrator.

Defining Request Sets Step 1: Enter Request Set Name



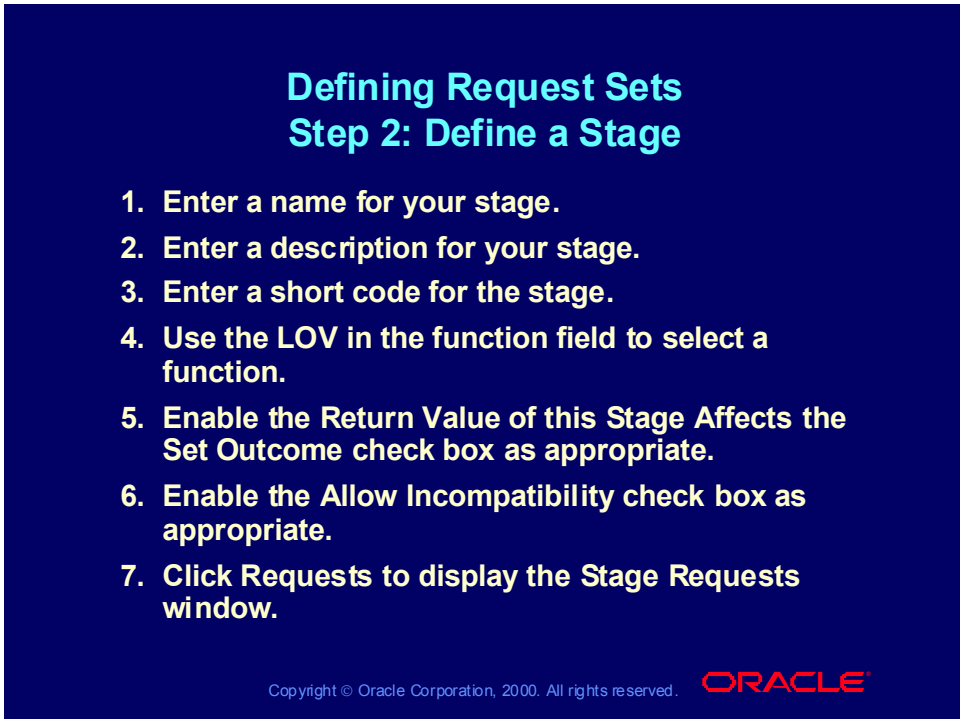
Defining A Request Set (continued)

If the current date is outside the Active Dates From and To range you define, the request set will not be available in the Submit Requests window.

Selecting the Print Together check box will send all your requests to the printer together when they complete.

Selecting the Allow Incompatibility check box allows your system administrator to specify programs that are incompatible with this request and may not run with it.

Defining Request Sets Step 2: Define a Stage



Stages

(N) Requests > Set > (B) Define Stages

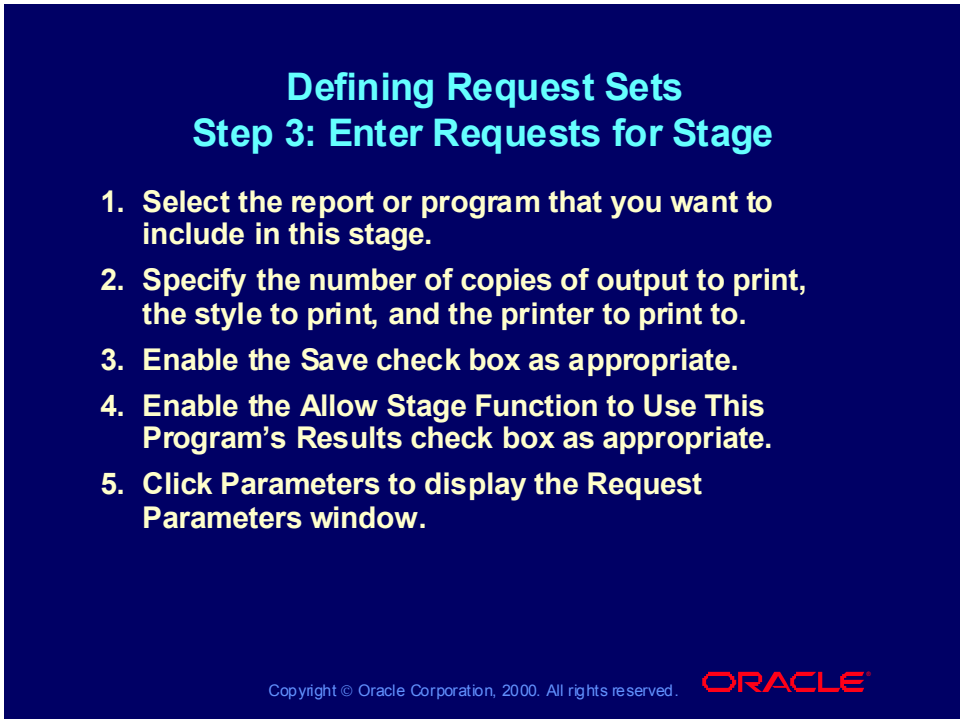
Defining Stages

The value for the Display Sequence field is defaulted in sequence as you enter your stages. You may change the display order of the stages by modifying the field.

The default value for the Function field is Standard Evaluation that bases its completion status on the normal completion status of the requests it contains.

If you select the Return Value check box for more than one stage, the completion status of the request set will equal the completion status of the *last* of these stages to run.

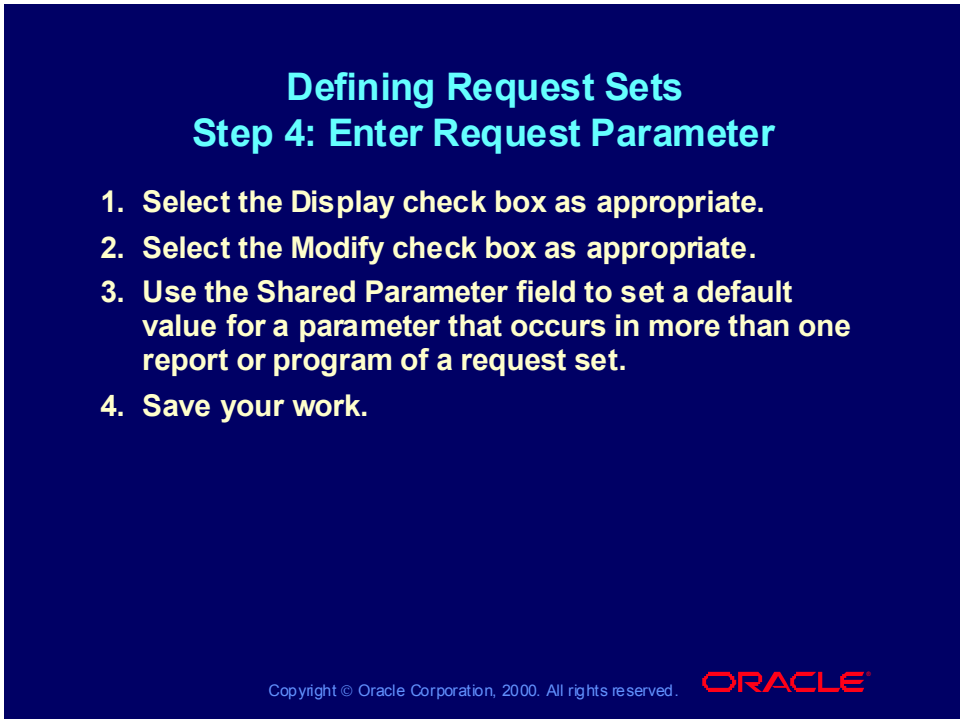
Defining Request Sets Step 3: Enter Requests for Stage



Defining Stages (continued)

(N) Requests > Set > (B) Define Stages > (B) Requests

Defining Request Sets Step 4: Enter Request Parameter



Request Parameters

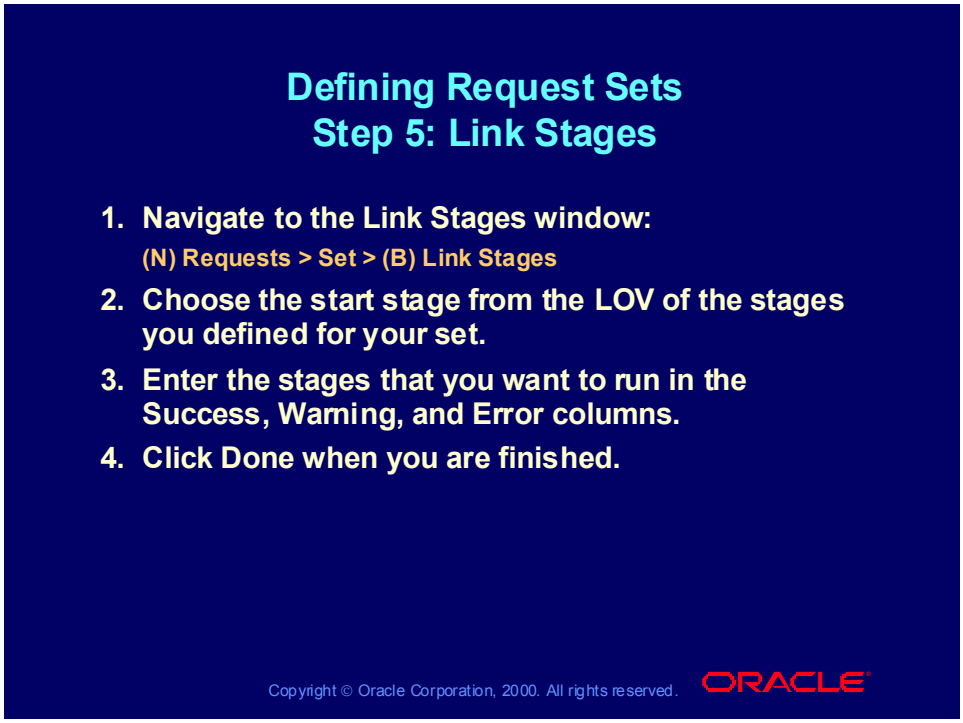
((N) Requests > Set > (B) Define Stages > (B) Requests > (B) Parameters

Request Parameters Window

Use the Request Parameters window to customize the parameter values of a specific request in a request set. The fields at the top of the Request Parameters window list general information about the current request set for which you can customize the parameter values. The multirow portion of the window lists the parameters for that request.

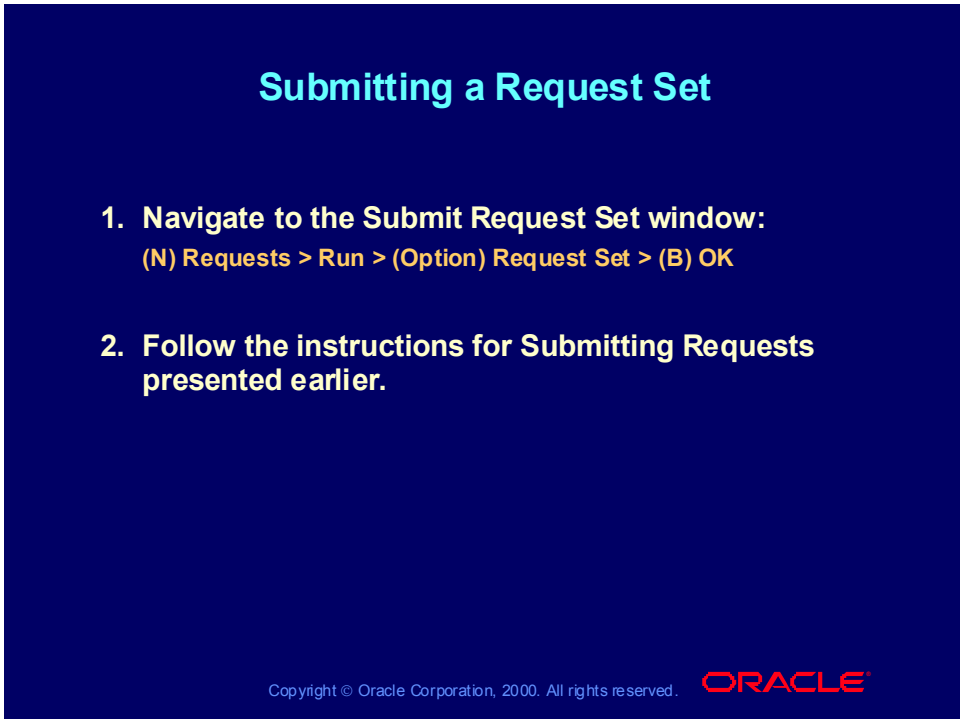
- The Sequence and Prompt fields are display only.
- Selecting the Display check box specifies that you can see a request parameter at submission time.
- Selecting the Modify check box to specifies that you can insert or change the value for a request parameter at submission time.
- Using the Shared Parameter field sets a default value for a parameter that occurs in more than one report or program of a request set. Use the shared parameter label to set an initial default value for all occurrences of the same parameter so that you can avoid typing the same value all over again for every occurrence of the parameter.

Defining Request Sets Step 5: Link Stages



Linking Stages in a Request Set

Success, Warning, and Error columns - To ensure that a particular stage follows the preceding stage regardless of the completion status, enter the desired stage in all three columns. To stop the request set if a stage ends in Error, leave the Error column blank. Any time you do not specifically indicate which stage should follow for a completion status, the request set will exit on that completion status.

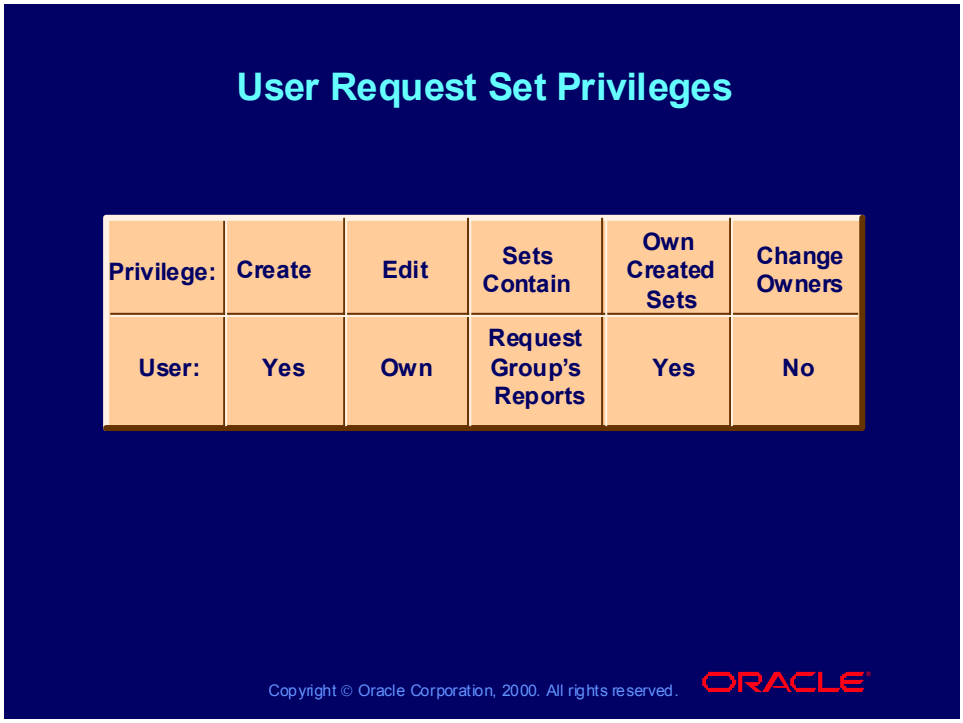


Who Can Use a Request Set

After you define a request set, it becomes your private request set. You can run it as long as you have access to a standard Submit Request window that does not limit access to specific requests.

Other users can run the request set only if your system administrator assigns the request set to their responsibility's request group. It is possible to have a request set in your request group that contains individual requests that are not in your request group, but you can only edit request sets that you own. You can add any requests in your request group to the request set. You can delete any request from the request set, regardless of whether that request is in your request group. To update information in about an individual request in the request set, however, the request set must be in your request group.

User Request Set Privileges



Request Set Privileges

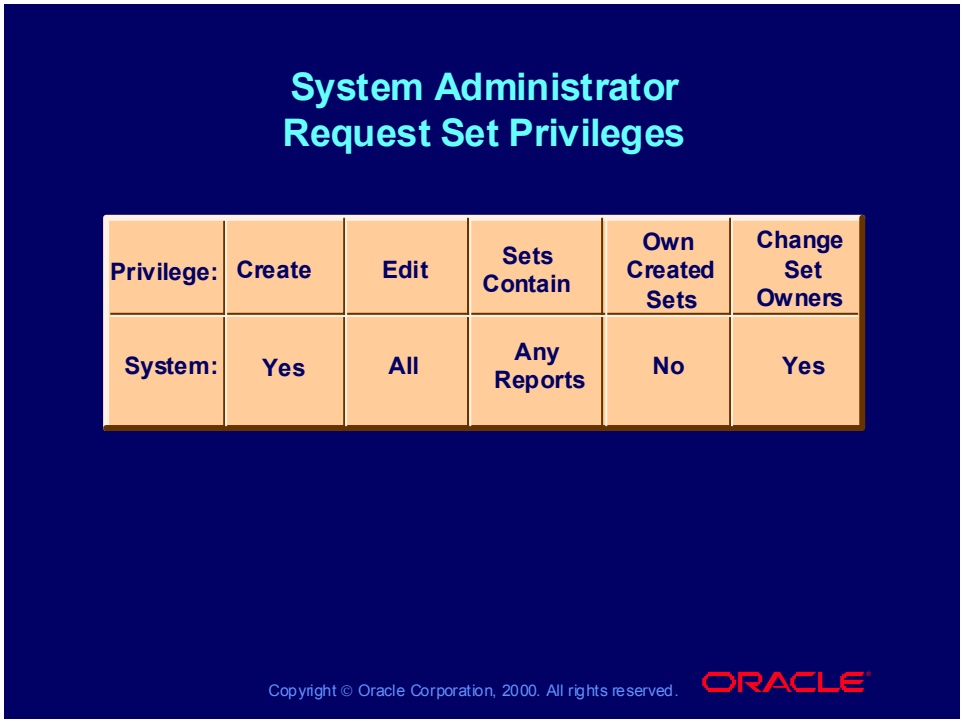
You can control request set ownership to manage request set editing and run privileges.

Application User Editing Privileges

- Application users define a request set by selecting reports or other concurrent programs from their current responsibility's request security group.
- Application users automatically own the sets that they create.
- Application users can always edit the sets that they own. They cannot edit a request set that they do not own.

Request Sets and Request Security Groups

- After changing responsibilities, application users can add reports from their current (new) responsibility's request security group to a request set that they own.
- After changing responsibilities, application users can delete reports from a request set that they own, regardless of whether the report is in the new responsibility's request security group.

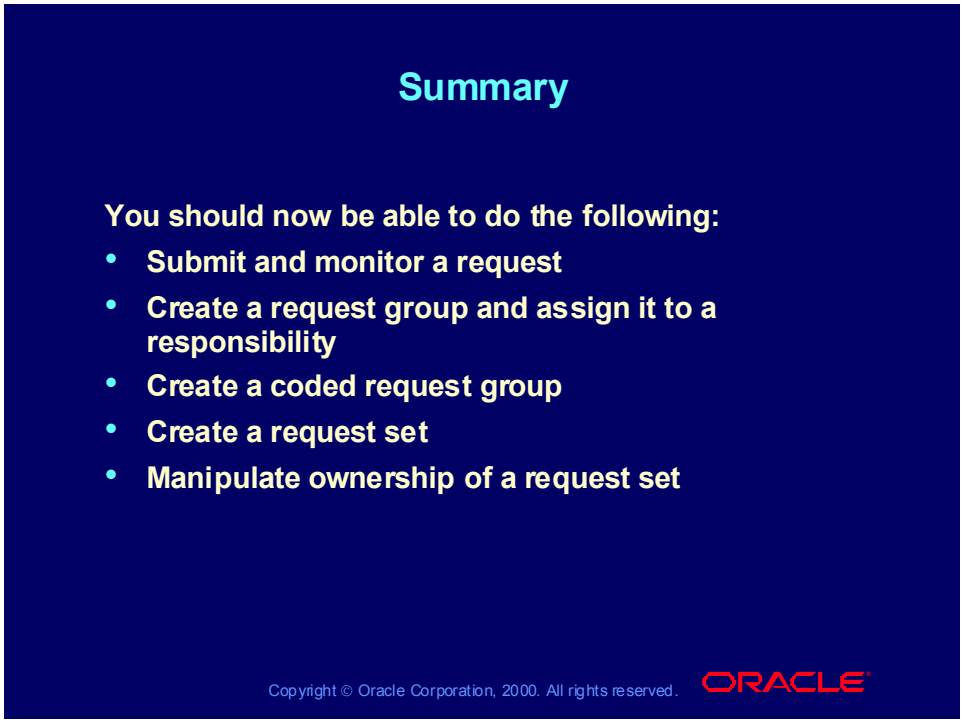


System Administrator Request Set Privileges

System administrators can edit and assign ownership of any request set.

System Administrator Editing Privileges

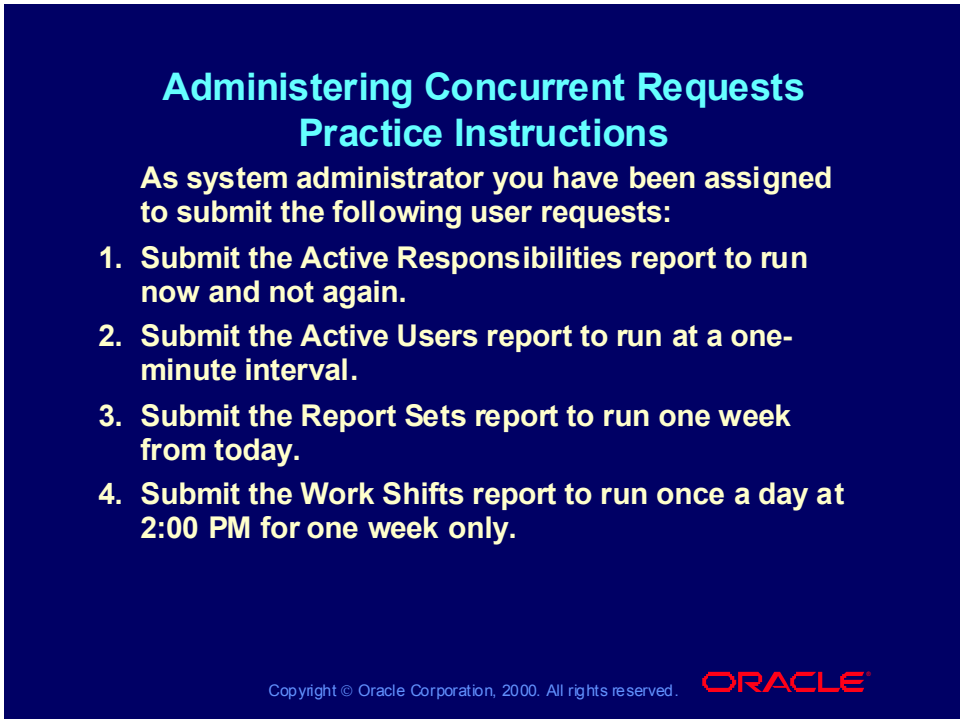
- System administrators can define or edit a request set to include any standard submission report or concurrent program.
- System administrators do not automatically own the request sets that they define. Request sets defined by a system administrator initially do not have an owner.
- System administrators can assign or change ownership of any request set.
- If a request set is assigned to an owner but not to the owner's request security group as well, the reports contained in the request set are available only to the owner.
- System administrators can edit any request set, whether the set is owned or not.
- System administrators can assign any request set to any request security group, even if the request set contains individual reports that are not in the request security group. However, this privilege provides the members of a responsibility access to reports and programs outside their request security group.



Lesson Summary

In this lesson you learned how to use request groups to control access to reports and concurrent programs. Additionally you learned how individual users can define request sets to streamline processing by setting default values for parameters and sharing parameter values among multiple reports.

Administering Concurrent Requests Practice Instructions



Instructions

Submit these requests and perform the following checks to ensure that processing was completed.

1. View one of the reports that completed.
2. Look at the Report Diagnostics of a report that completed successfully.
3. Review the Request Log of a report that completed successfully.

Additional user requests prompt you to do the following:

1. Cancel one of your pending requests, but do not save. Uncancel the pending request and put it on hold. Then take it off hold.
2. Reprint one of the completed reports with 0 copies defined.
3. Cancel the request that was submitted to run once every minute.
4. Now, save all of these changes.

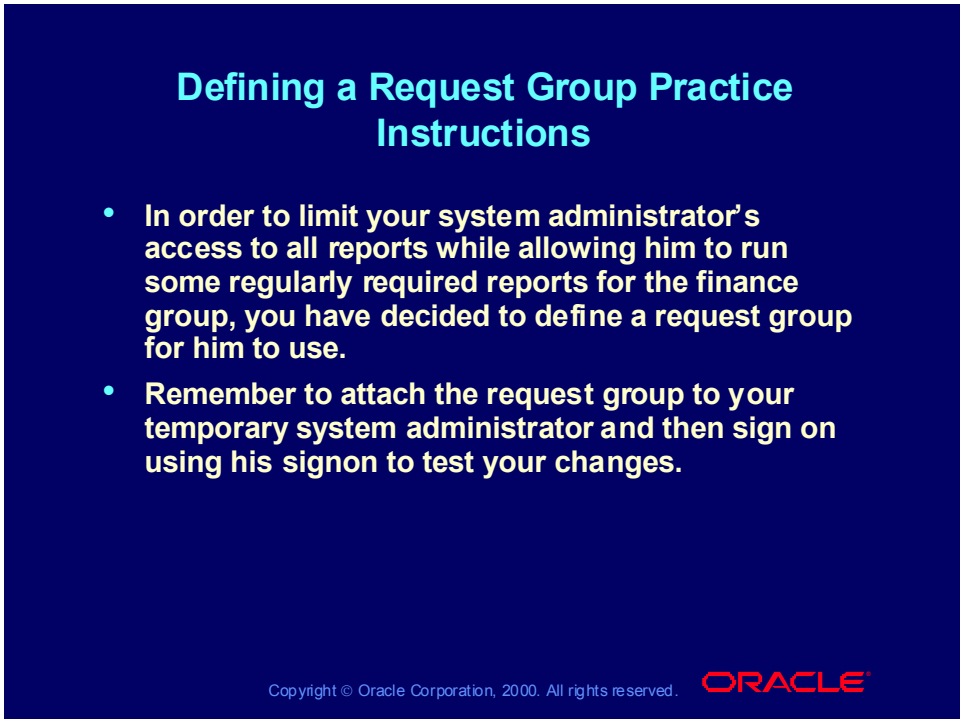
Practice Solutions

Submit Your Requests

1. Navigate to (N) Concurrent >Requests > (B) Submit a New Request.
2. Click Submit a New Request and then click OK to submit a single request.
3. Submit the three reports listed in your instructions, using the list of values to select them.

View Your Requests

4. Navigate to (N) Concurrent > Requests.
5. Click Find to pull up all of your submitted requests.
6. Use the appropriate buttons on this form to perform each of the tasks listed in the instructions.



Instructions

Group Name: Your Company Name Request Group_____

Application: Your Company Name Custom Application

Code: Skip this field

Description: Your Company Name Reports

Requests Type: Application

Requests Name: Application Object Library

Requests Type: Program

Requests Name: Invoice on Hold Report

Requests Type: Set

Requests Name: Function Security Reports

Practice Solutions

Define a Request Group

1. (N) Navigate to Security > Responsibility > Request.
2. Enter the data from the instructions in the appropriate fields in the window.
3. Click Save to save your work.

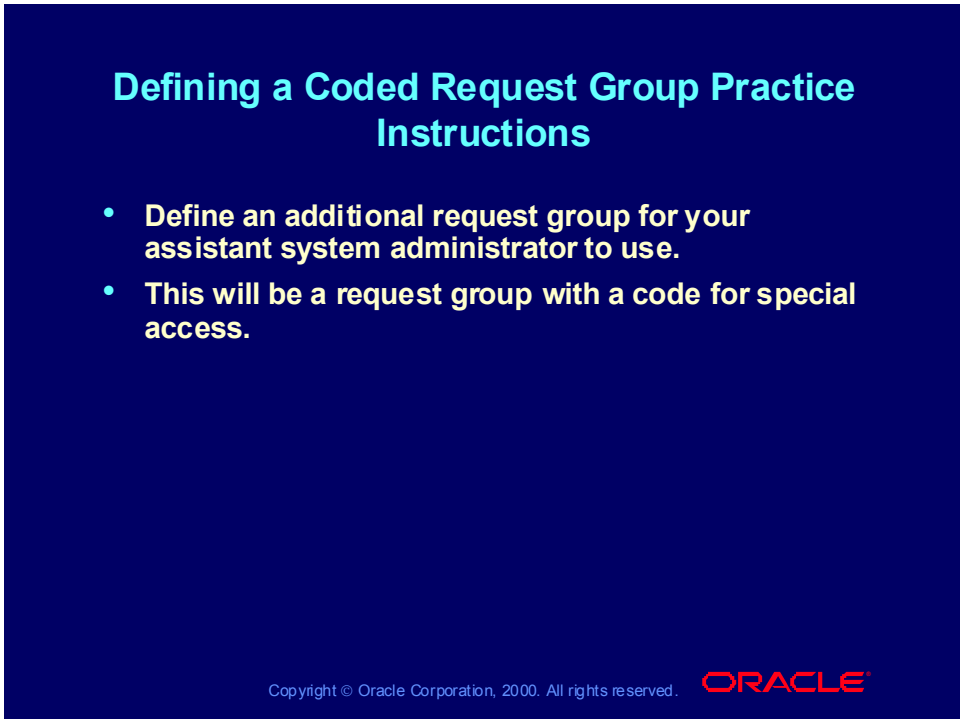
Attach the Request Group to Your Temp System Administrator Responsibility

4. Navigate to (N) Responsibility > Define.
5. Query to find your Temp System Administrator responsibility. Choose your request group from the list of values for the Request Group Name field.
6. Click Save to save your work.

Test Your Request Group

Test that the request group has been appropriately assigned and that reports now exist that can be run under your Temp System Administrator responsibility.

7. Select (M) File > Log on as a Different User...
8. Sign on with your Temp System Administrator user name and password.
9. Navigate to (N) Requests > Run. Click OK to accept the default.
10. Note the reports that now exist in the list of available reports for you to run.



Instructions

Define an additional request group for your assistant system administrator to use. This will be a request group with a code for special access. Use the information provided below.

Group Name: Your Company Name Request Group 2

_____

Application: Your Company Name Custom Application

Code: Your initials plus your terminal number

_____

Description: Your Company Name Reports

Request Type: Program

Request Name: Journal Entries Report

Define the function, assign a user name to the function, and add the new function to your first-level custom menu as function number five. Use the information provided below.

Function: Your Application Short Name_REPORTS

User Function Name: Your Company Name Reports

Type: Form

Description: Your Company Name Reports

Form: Run Reports

Parameters: TITLE = Your Company Name Reports

REQUEST_GROUP_CODE = Your initials plus your terminal number

REQUEST_GROUP_APPL_SHORT_NAME = The code used to register your custom application.

Practice Solutions

1. Navigate to (N) Security > Responsibility > Request.
2. Enter the data from the instructions in the appropriate fields in the window.
3. Click Save to save your work.

Define the Function

4. Navigate to (N) Application > Function.
5. Enter the data from the instructions in the appropriate fields in the window. Data will be entered on the Description tab region and on the Form tab region.

   Hint: Use the Edit Field icon when you are in the Parameters field to type in the specific logic as described in the instructions.
6. Click Save to save your work.

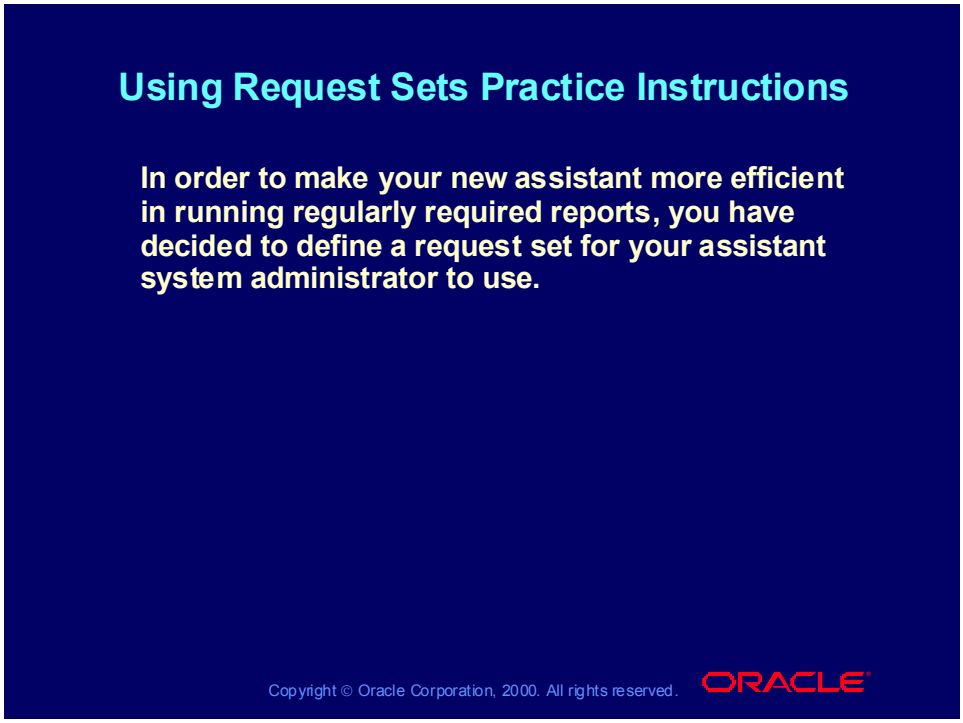
Add the New Function to the Menu.

7. Navigate to (N) Application > Menu.
8. Query up your first-level custom menu.
9. Add your function as number five.
10. Type Your Company Name Reports in the Name Navigator Prompt field.
11. Attach your new function by calling it up using the User Function Name.
12. Click Save to save your work.

Test Your Changes

13. Select (M) File > Log on as a Different User... to sign on again as the System Auditor to see your new function on the menu.

Using Request Sets Practice Instructions



Instructions

Set Name: Your Company Name's Request Set

Set Code: Your initials plus your terminal number

Application: Your Company Name Custom Application

Description: Your Company Name Reports

Owner: Your Temp Sys Admin User Name

Use the Requests Set Wizard to complete the setup for your request set; accept all of the default values.

Include the following programs in your request set:

- Users of a Responsibility
- Reports and Sets by Responsibility
- Report Group Responsibilities

Practice Solutions

1. Navigate to (N) Requests > Set.
2. Enter the data from the instructions in the appropriate fields in the window.
3. Click Save.
4. Select the Request Set Wizard.

5. Accept the default value and select Next to continue using the Request Set Wizard.
6. Continue selecting Next until you see the window asking you to choose a name and an application for your request set.
7. Enter the Set name, Application, and Description as described in the instructions.
8. Select Next. The next window asks you to enter the concurrent programs to include in your request set.
9. Enter the programs listed in the instructions.
10. Select Finish. A Note appears telling you that your request set has been created and saved. Click OK.

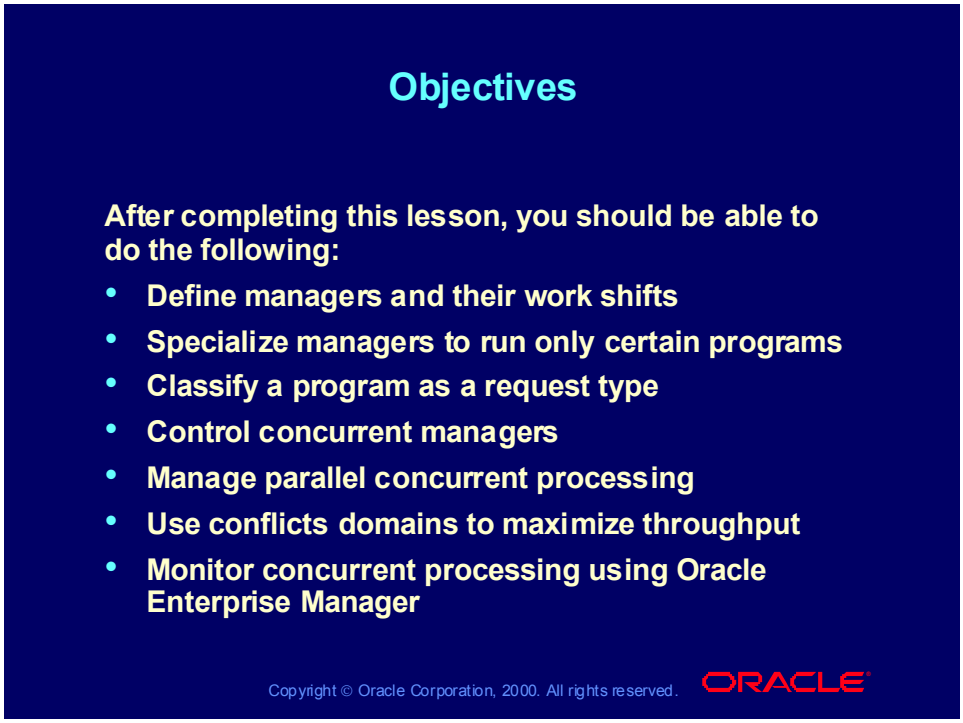
Administering Concurrent Managers

Chapter 4

Notations:

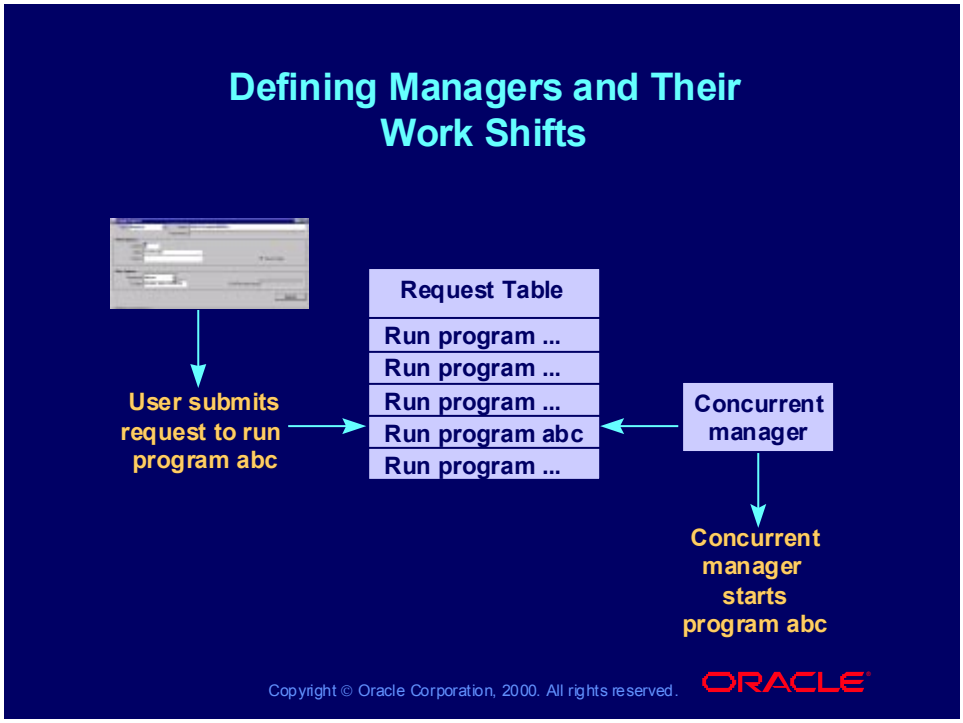
(N) = Navigator
(T) = Tab
(I) = Icon
(H) = Hyperlink
(B) = Button
(Help) = Oracle Applications Help System

Objectives



Lesson Aim

The Oracle system administrator is the end user's first point of contact for system questions. The system administrator should be able to monitor the processing of requests and deal with any problems. He or she should also be able to balance workloads to provide the optimum processing environment for users. This lesson teaches you how to monitor and control system processing and also how to plan and schedule your workload.



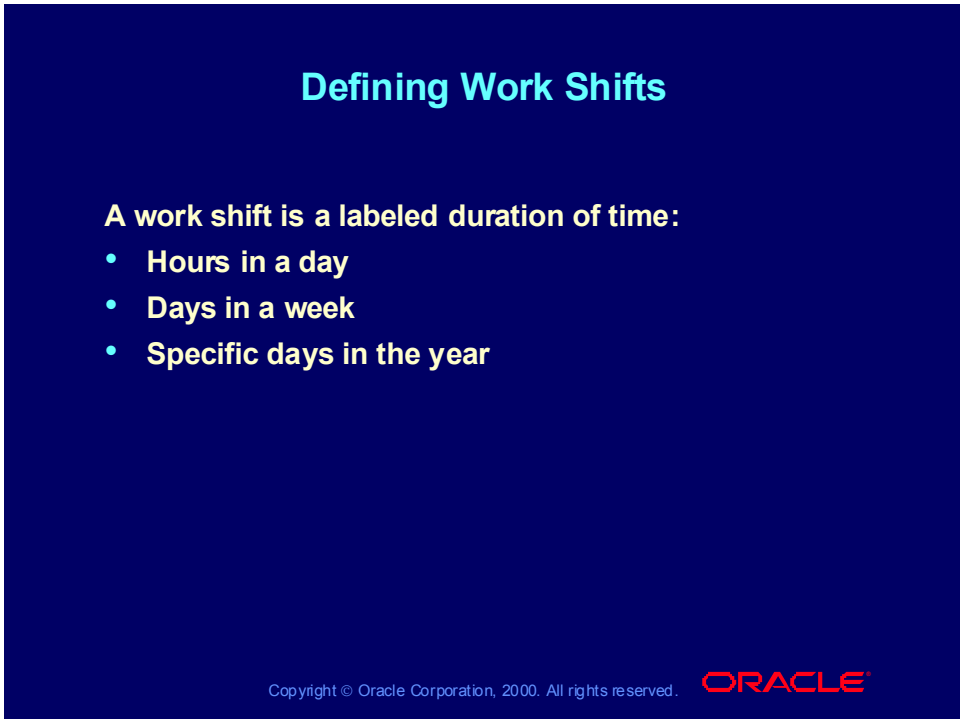
Managers and Their Work Shifts

A concurrent manager is itself a concurrent program that starts other concurrent programs running. When an application user submits a request to run a program, the request is entered into a database table that lists all of the requests. Concurrent managers read requests from the table and start programs running.

Concurrent managers can be defined to process only certain types of requests and to operate during certain times of the day.

Scheduling Requests You can schedule when a manager operates by defining one or more work shifts and associating the manager with a work shift.

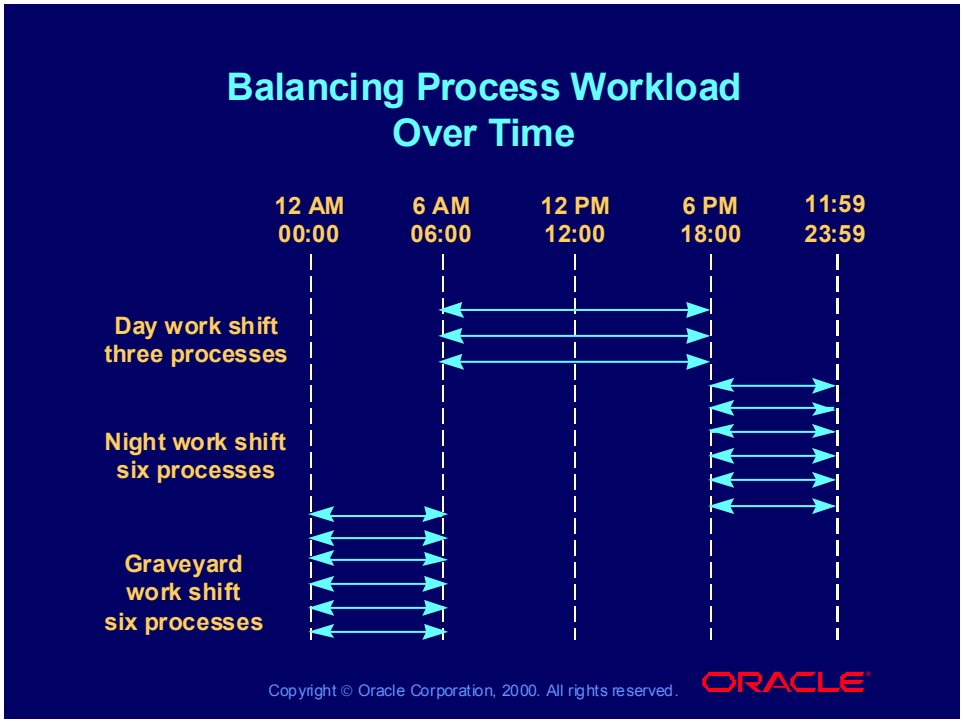
Segregating Requests You can define specialization rules to identify the kinds of requests that a manager will read. Specialize managers so that they only read requests to start certain kinds of programs.



Defining Work Shifts

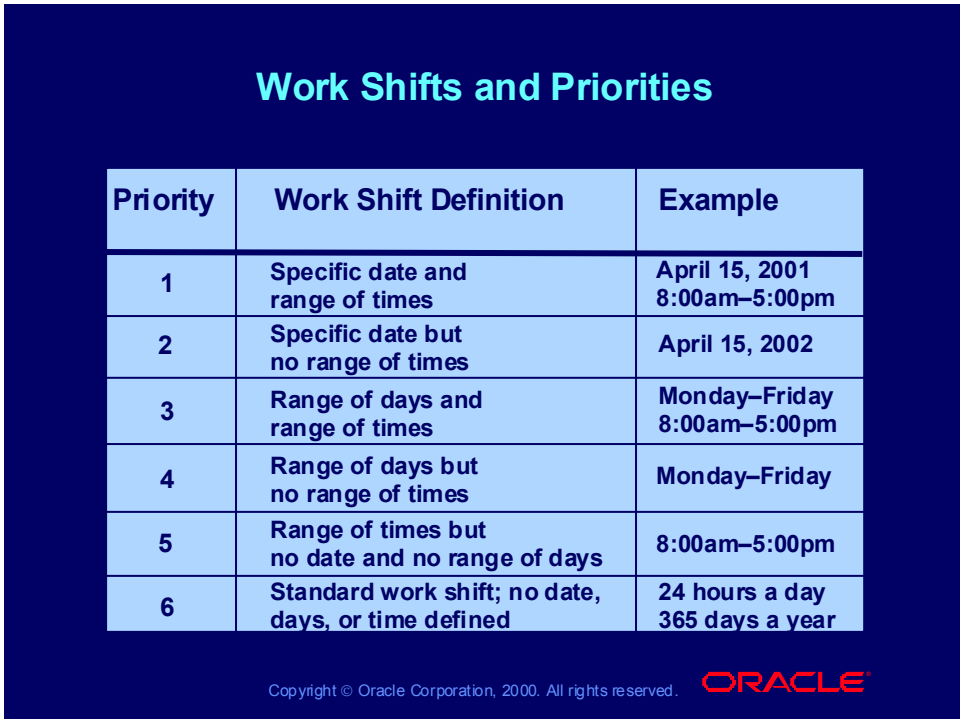
(N) Concurrent > Manager > Workshifts

A concurrent manager operates only during its specified work shift. Use military time notation to define a work shift—that is, use 24 hours rather than 12.



Balancing Process Workload

You can create multiple work shifts for a concurrent manager to regulate the number of operating system processes that the manager starts up at different times of the day and different days of the week.

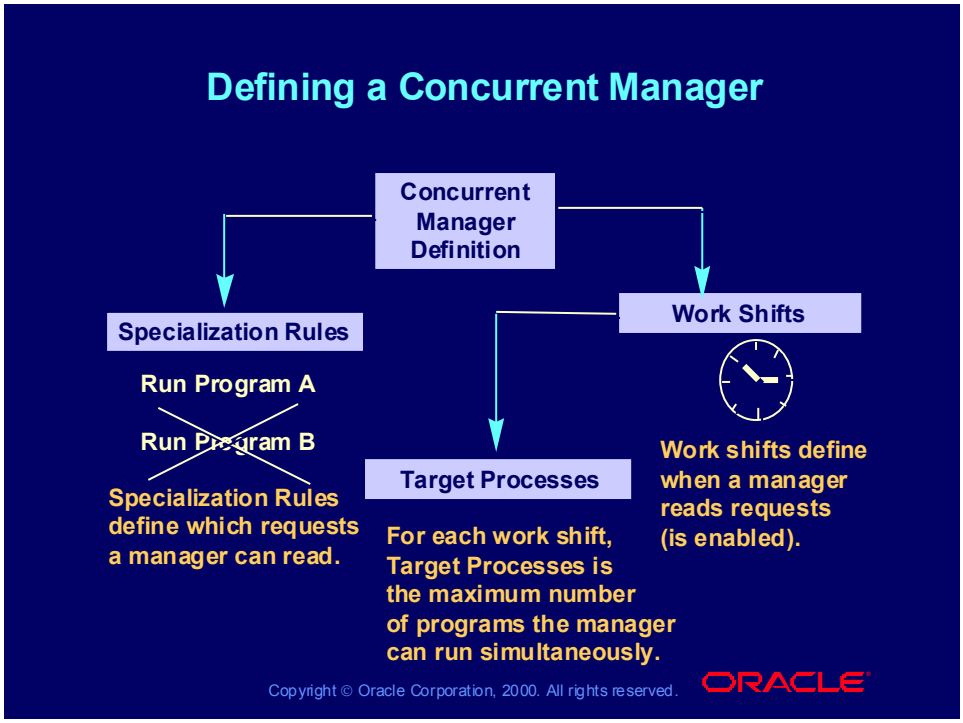


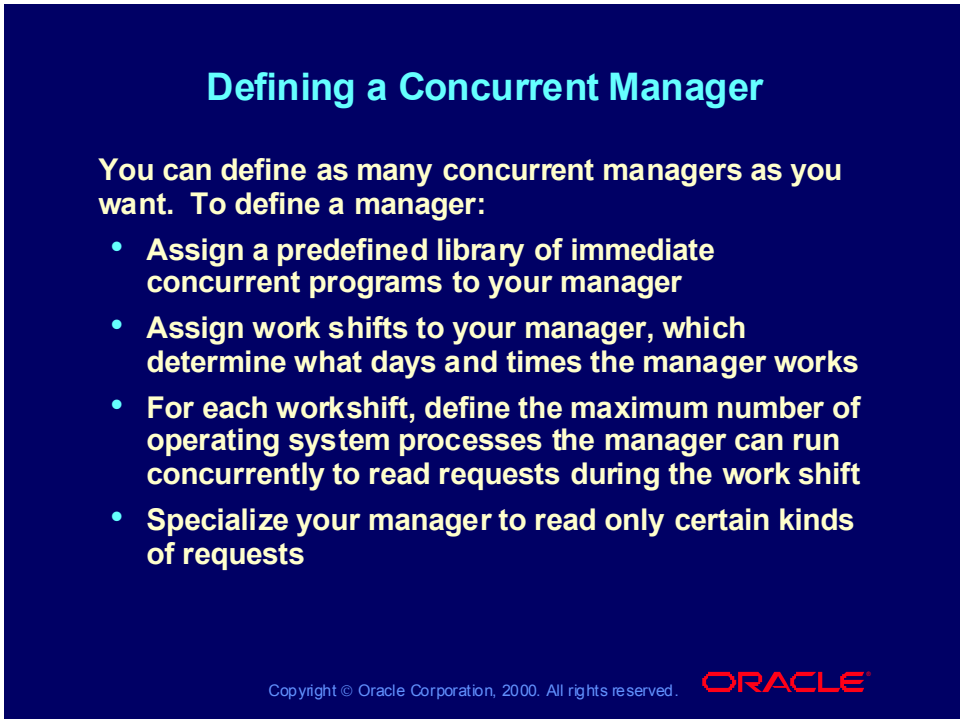
Overlapping Workshifts

When work shifts overlap, the work shift with the more specific time period takes effect for the overlapping time period. For example, a work shift for January 1 overrides a work shift from 9:00 am to 5:00 PM every Monday through Friday.

When work shifts with the same priority overlap, the work shift with the largest number of target processes takes effect.

Defining a Concurrent Manager

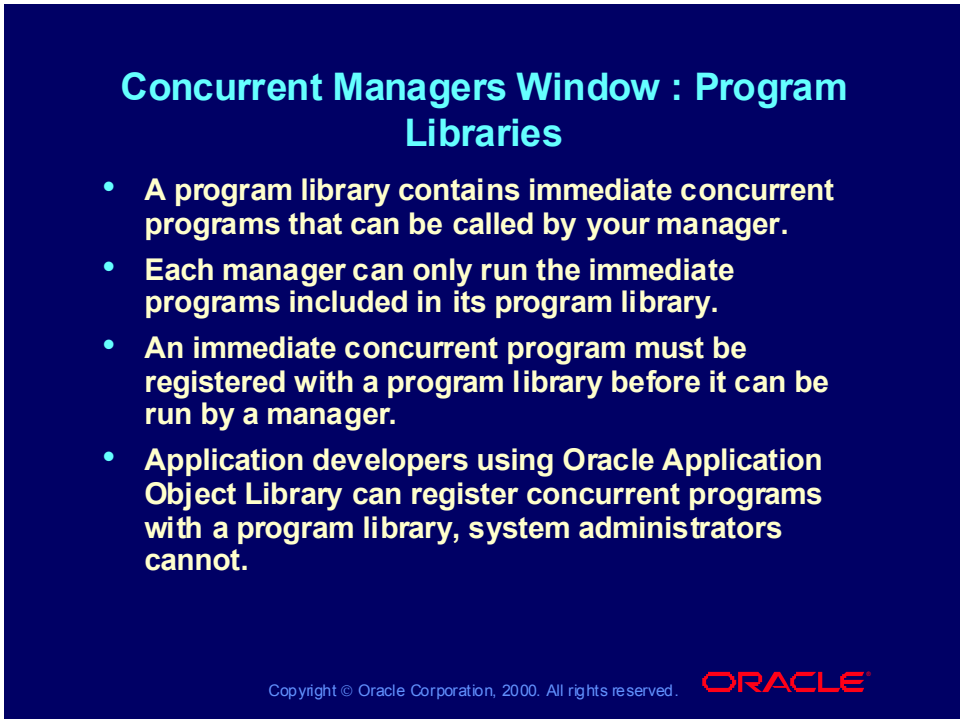




Defining a Concurrent Manager

(N) Concurrent > Manager > Define

The Parallel Concurrent Processing Details region of this window is discussed in a later lesson.



Concurrent Managers

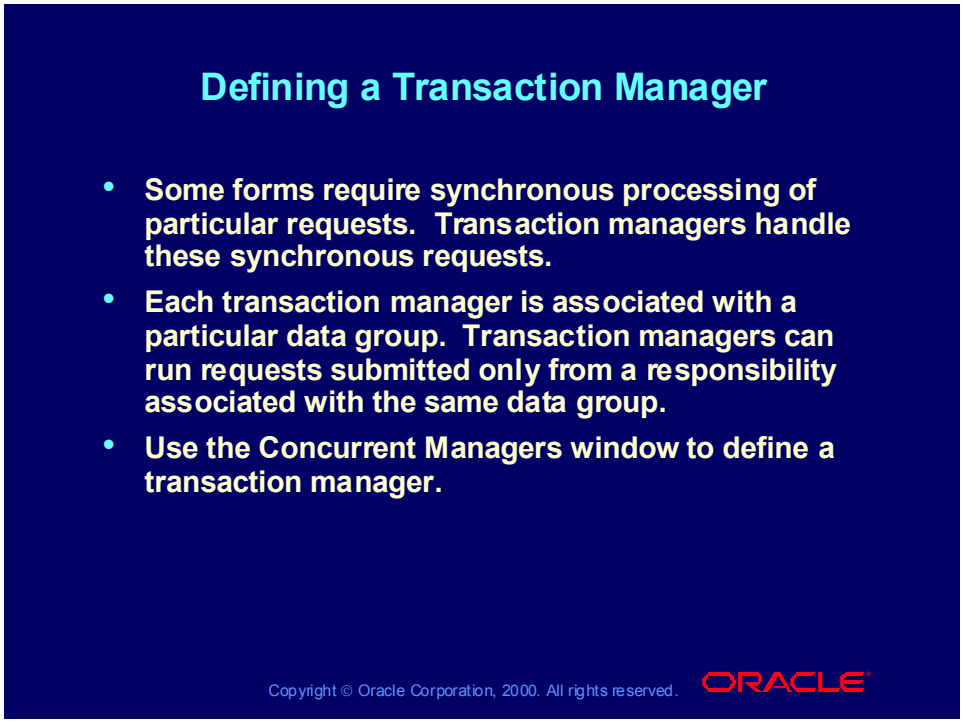
(N) Concurrent > Manager > Define

Immediate Programs and Spawned Programs

Immediate concurrent programs are C or PRO*C subroutines linked with concurrent managers. Most concurrent programs are spawned as independent processes at run time instead of running as subroutines. If you are defining a new concurrent program, you should run the program as a spawned program rather than as an immediate program.

Examples of these are:

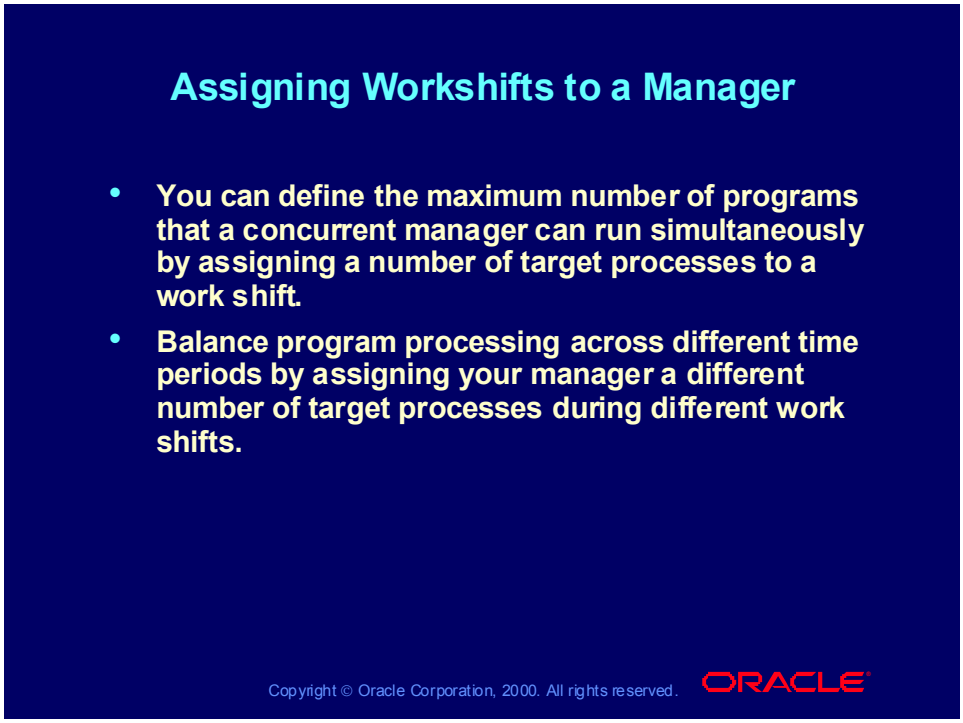
- FNDLIBR: Contains immediate concurrent programs used by Oracle Applications Object Library.
- INVLIBR: Contains immediate concurrent programs used by Oracle Inventory.
- MFCLIBR: Contains immediate concurrent programs used by Oracle Manufacturing.
- PALIBR: Contains immediate concurrent programs used by Oracle Projects.



Creating Custom Transaction Managers

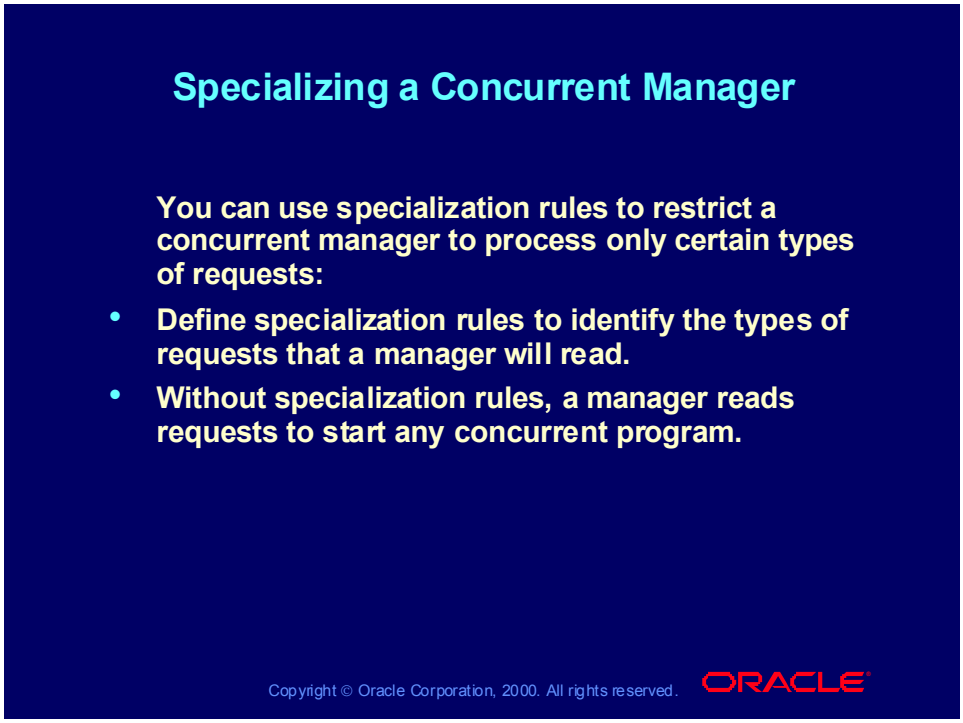
(N) Concurrent > Manager > Define

Because forms must be precoded to submit synchronous requests, you do not usually need to create custom transaction managers. If you create custom data groups, you should create custom transaction managers that use your custom data group. This applies only if the responsibilities using your custom data group access the forms submitting synchronous requests. Consult your product documentation. In general, you should create custom transaction managers whenever your custom data groups prevent your seeded transaction managers from operating.



Assigning Work Shifts to a Manager

(N) Concurrent > Manager > Define > (B) Workshifts

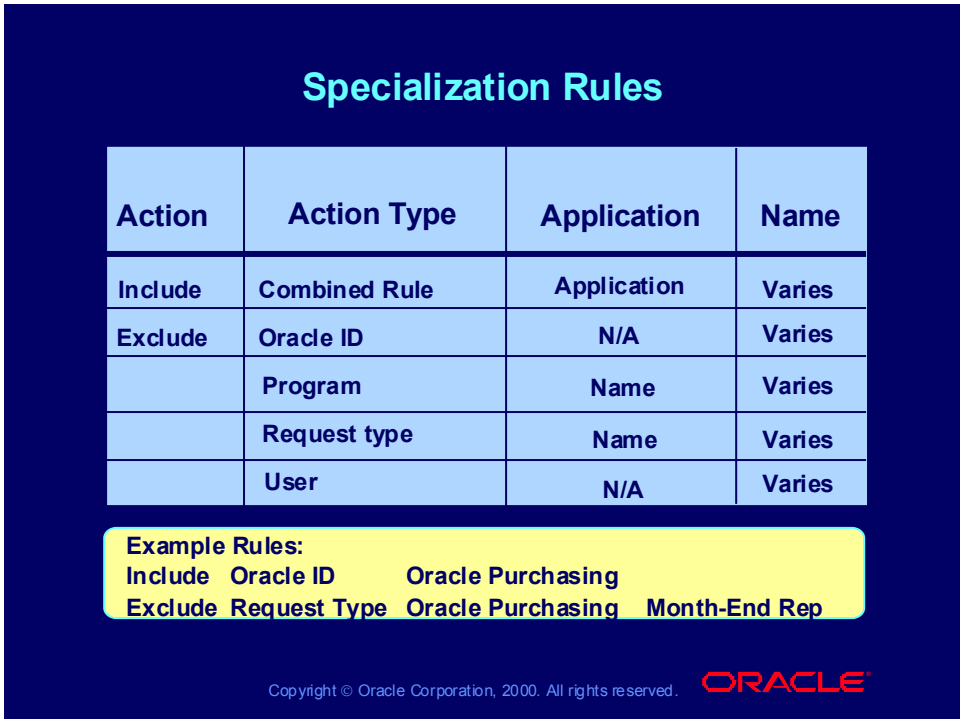


Specializing a Concurrent Manager

(N) Concurrent > Manager > Rule

Combined Rules

(N) Concurrent > Manager > Rule



Defining Specialization Rules

Use actions and qualifications to define specialization rules. An action defines a concurrent manager's behavior toward the request.

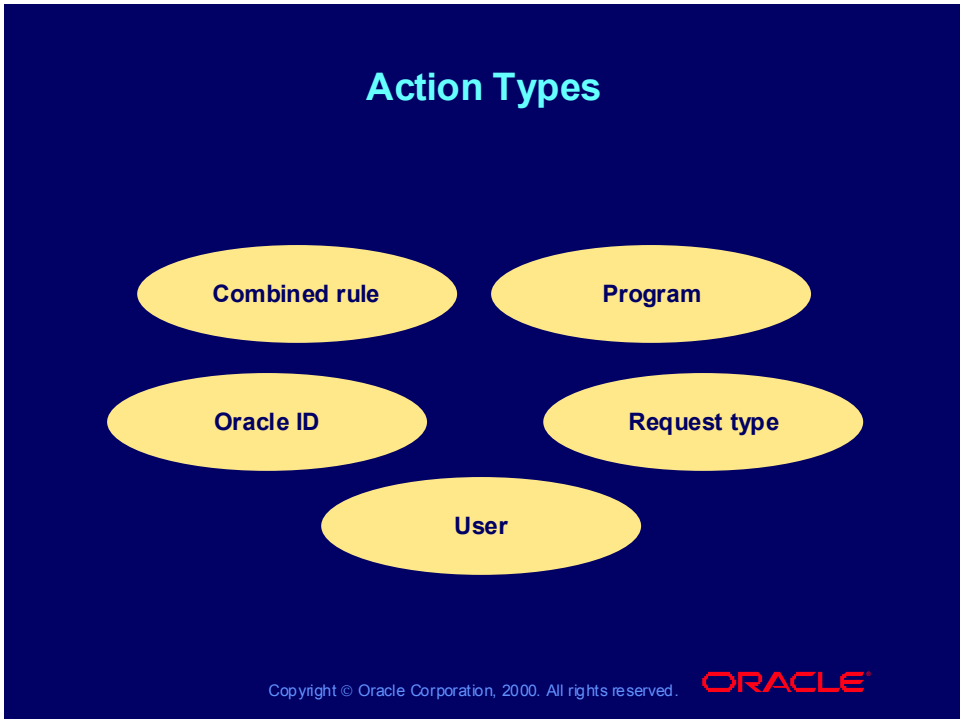
Include and Exclude Actions

- The manager runs requests that are included.
- The manager does not run requests that are excluded.
- Exclusion rules override inclusion rules.

Example Rules

The example rules would result in a manager's reading requests for all programs assigned to Oracle Purchasing except programs defined with the request type Month-End Rep.

Action Types

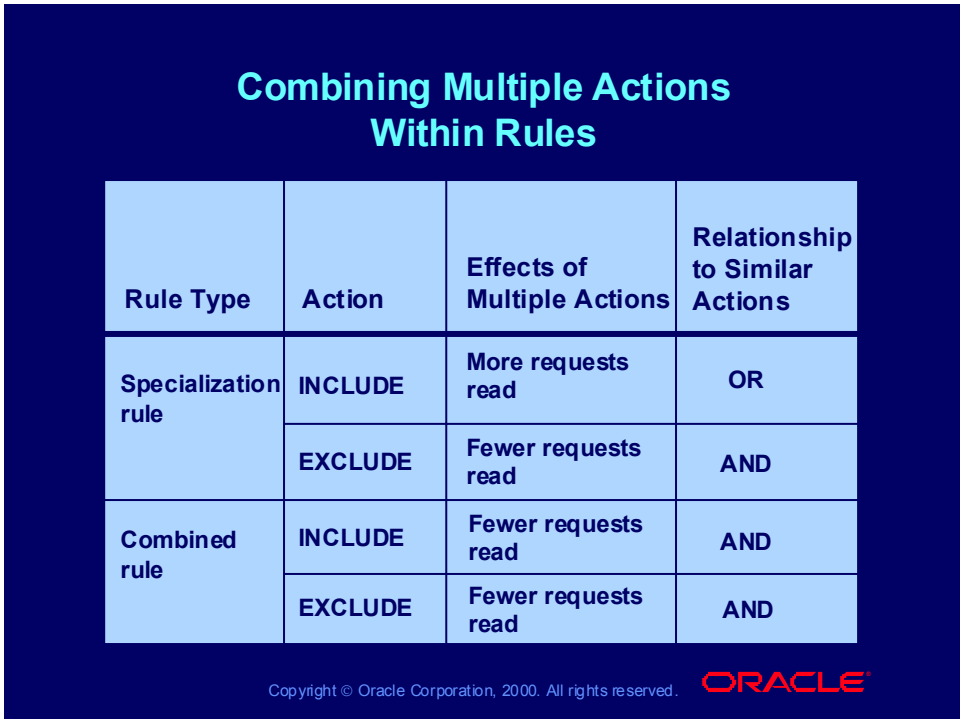


Action Types

Use action types to specify the actions of a manager. An action type specifies the type of request to which an action refers.

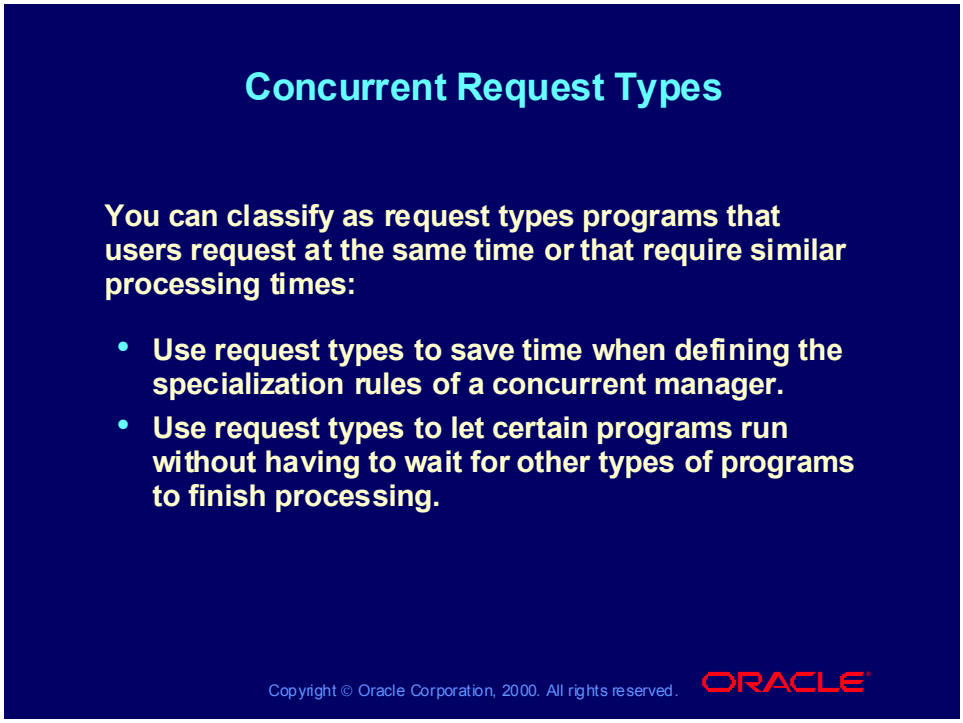
- **Programs that connect to a specific Oracle Applications account (Oracle ID)**. For example, you could include for processing all programs that connect to the Oracle Payables account AP1.
- **Specific programs by name**. For example, you could include for processing the Oracle General Ledger program Trial Balance-Budget. When using an action type of program, you specify the application and the program name.
- **Certain request types**. For example, you could include for processing all programs that had been defined as a request type of Month-End Reports.
- **Programs requested by certain users**. For example, you could include for processing all programs requested by the user Sysadm.
- **Combined rule**. A combined rule combines more than one action to generate a single rule.

Combining Multiple Actions Within Rules



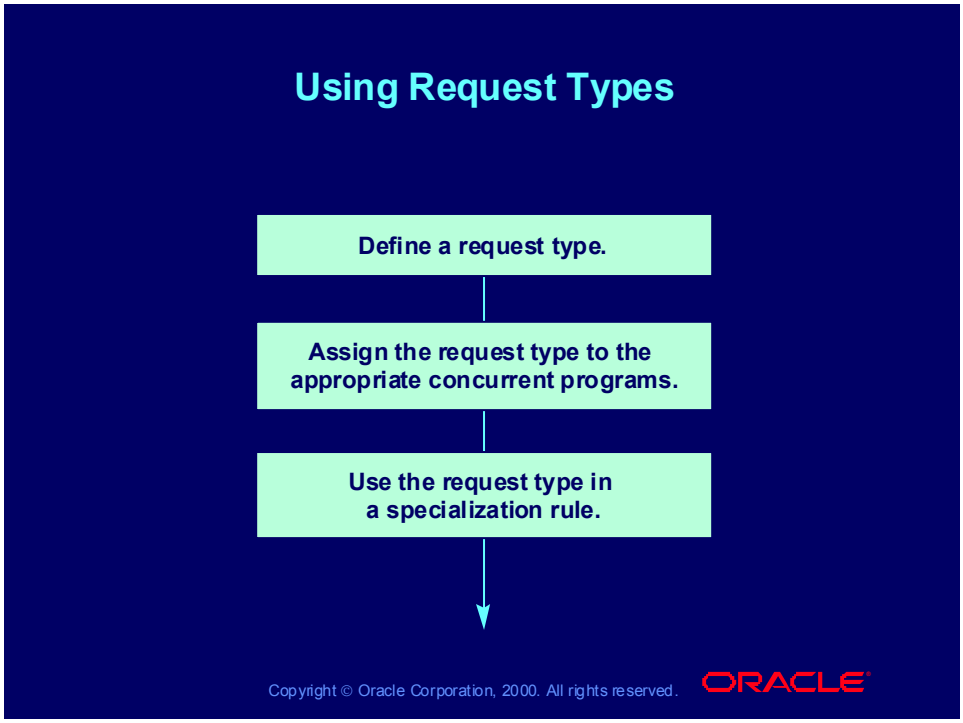
Combining Multiple Actions in Rules

- Multiple include actions in a combined rule behave differently from other multiple include actions in a specialization rule.
- A specialized include rule is associated with a specific concurrent manager. A combined include rule is an independent rule possibly associated with multiple managers.
- Multiple specialized include rules create OR clauses, allowing more requests to be read by the manager.
- Multiple combined include rules create AND clauses, further restricting a manager from reading the request.



Defining Request Types

(N) Concurrent > Program > Types

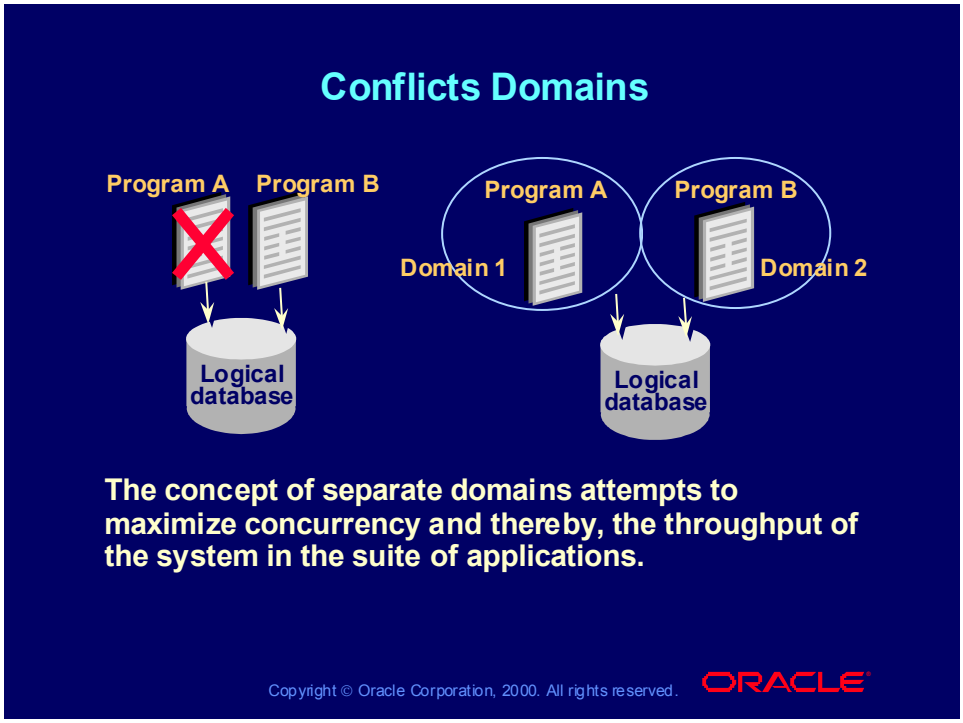


How to Define and Use Request Types

There are three steps in defining and using request types:

1. Identify a category of programs according to some criterion. Define a request type for that category of programs.
2. Identify a concurrent program according to the new request type.
3. Use the new request type in a manager's specialization rule.

Conflicts Domains



The Purpose of Conflicts Domains

Concurrent processing resolves and imposes conflicts and constraints within a domain and not across. That is, two incompatible programs A and B will not run concurrently when they are submitted within the same domain. But, if A is submitted within domain D1 and B is submitted within D2, they may run concurrently.

Defining Conflicts Domains

(N) Concurrent > Conflicts Domains

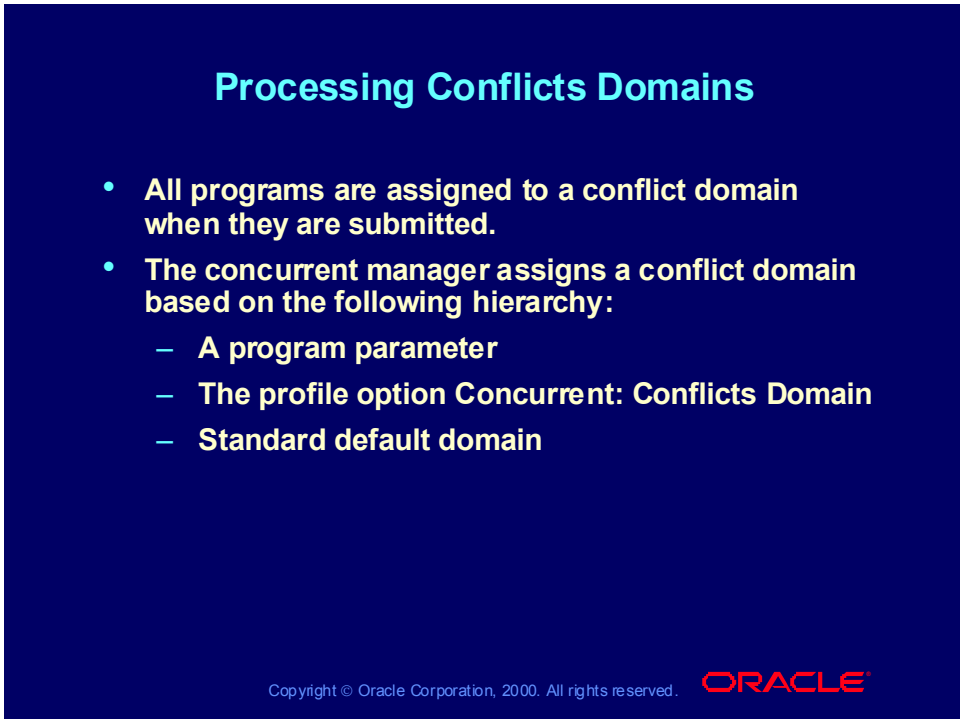
To prevent two programs from concurrently accessing or updating the same data, you have to know *where* in terms of data, they are incompatible. A Conflict Domain identifies the data that creates the incompatibility.

In Oracle Applications data is stored in database tables that belong to a particular application. Each table may also contain information used to determine what conditions need to be met to access the individual records. These conditions may consist of one or more of the following data groupings:

- SOB - based on the profile option GL_SET_OF_BOOKS
- Multiple installations (referred to as MSOB)
- Multiple Operating units (determined by profile option MO_OPERATING_UNIT) (referred to as MULTIORG)
- Multiple Orgs (determined by profile option INV_ORGANIZATION_ID, used by Manufacturing applications)

- HR may use business group as a conflict domain
- FA may use FA book

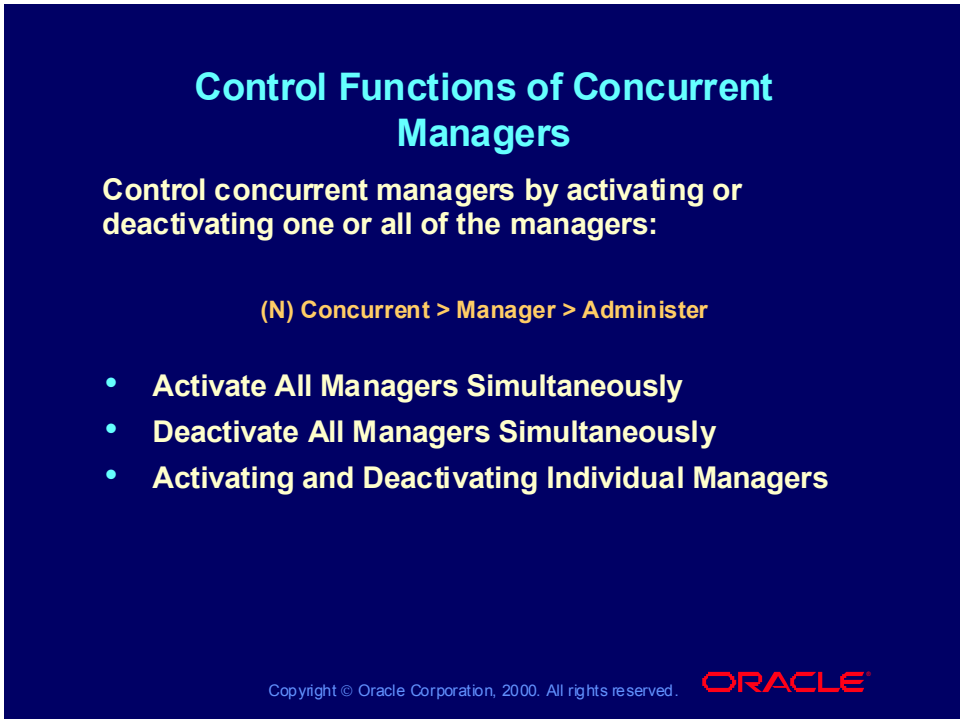
A conflict domain is an abstract representation of the groupings used to partition your data. There is no limit to the number of domains that can be defined, but excessive domains may hurt performance.



Processing Conflict Domains

All programs are assigned a conflict domain when they are submitted. If a domain is defined as part of a parameter the concurrent manager will use it to resolve incompatibilities. If the domain is not defined by a parameter, the concurrent manager uses the value defined for the profile option Concurrent: Conflicts Domain. Lastly, if the domain is not provided by a program parameter and the Concurrent: Conflicts Domain profile option has not been defined, the Standard domain is used. The Standard domain is the default for all requests.

Each request submitted uses parameters that identify the records that it will access. For programs that are defined with incompatibility rules the conflict domain parameter is used additionally. The conflict domain may be set automatically based on such variables as logon ID, set of books, or the organization the user is working in. The conflict domain parameter may in some cases be selected in the parameters field of the Submit Requests form.



Activating and Deactivating Concurrent Managers

You can control concurrent managers by activating or deactivating one or all of the managers.

Activate All Managers Simultaneously When you activate the Internal Concurrent Manager, it starts up all the concurrent managers. You can activate the Internal Concurrent Manager from the operating system.

Deactivate All Managers Simultaneously When you deactivate the Internal Concurrent Manager, it shuts down all the concurrent managers. You can deactivate the Internal Concurrent Manager from either the Administer Concurrent Managers window or the operating system.

Activating and Deactivating Individual Managers You can activate individual concurrent managers by using the Administer Concurrent Managers window. The Internal Concurrent Manager must be active for an individual manager to be active. Deactivate individual concurrent managers by using the Administer Concurrent Managers form.

Internal Manager Control Functions:

Activate Concurrent Manager Activates the Internal Concurrent Manager and all other managers except managers that were deactivated individually using Deactivate Concurrent Manager.

Verify Concurrent Manager Status Manually executes the process monitoring (PMON) cycle.

Deactivate Concurrent Manager Deactivates the Internal Concurrent Manager and all other managers.

Terminate Requests and Deactivate Manager All running requests running concurrent programs) are terminated, and all managers are deactivated.

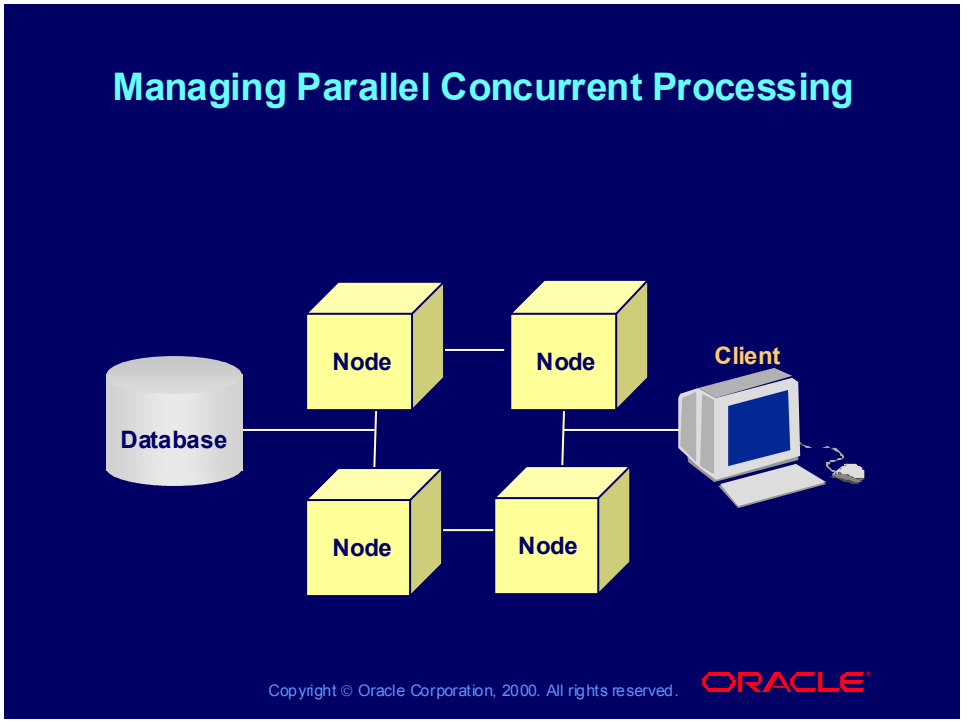
Any Other Manager Control Functions

Activate Concurrent Manager If the manager is defined to work in the current work shift, it starts immediately. Cancels Deactivate Concurrent Manager and Terminate Requests and Deactivate Manager Requests.

Restart Concurrent Manager Internal manager rereads the manager's definition and the rules for concurrent program incompatibilities.

Deactivate Concurrent Manager Deactivates the manager. All requests (concurrent programs) currently running are allowed to be completed before the manager shuts down. A manager will not restart until you select the manager and choose Activate Concurrent Manager.

Terminate Request and Deactivate Manager All running requests (running concurrent programs) handled by the manager are terminated. Once deactivated a manager will not restart until you select the manager and choose Activate Concurrent Manager.



Managing Parallel Concurrent Processing

You can distribute concurrent processing across multiple nodes in a cluster, massively parallel, or homogeneous networked environment.

Benefits of Parallel Concurrent Processing

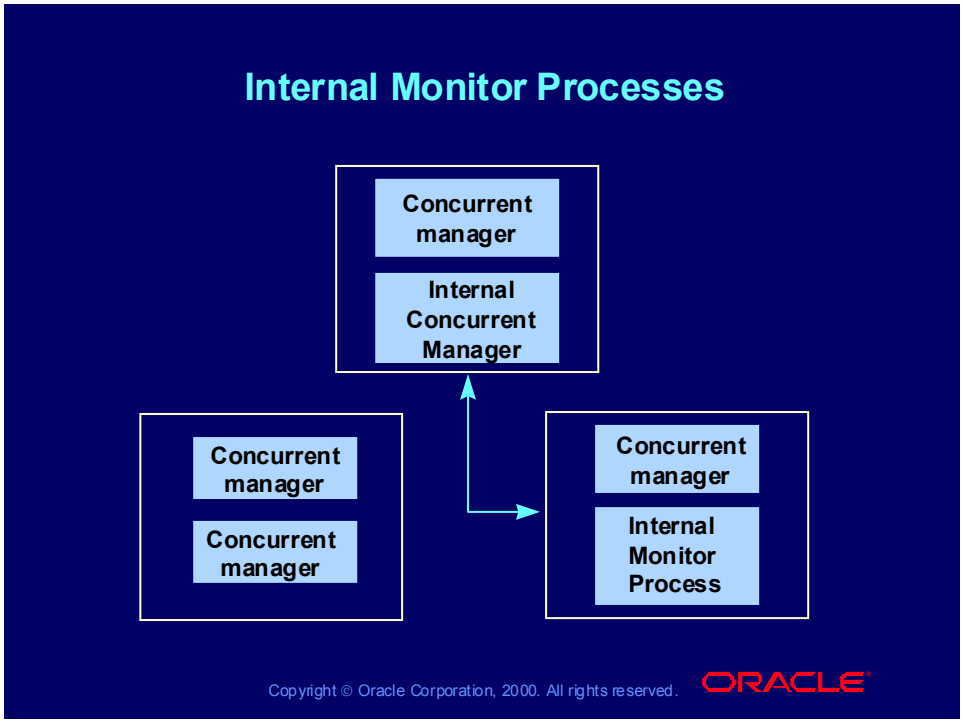
- **High Performance:** Processes can run on multiple nodes to improve throughput.
- **Fault Tolerance:** Processes can continue running on available nodes even when one or more nodes fail.
- **Adaptability:** Integrate with platform-specific batch queue and load-balancing systems to maximize concurrent processing performance on a particular platform.
- **Single Point of Control:** Managers can be administered from any node.

Nodes

- Each node consists of one or more processors (CPUs) and its associated memory.
- Each node has its own memory that is not shared with other nodes.
- Each node operates independently of other nodes except when sharing resources.

Nodes and Concurrent Managers

With parallel concurrent processing, one or more managers can run on one or more nodes. You decide where concurrent managers run when configuring the system. You can define any set of specialization rules and apply them across nodes in any way desired.



Internal Monitor Processes

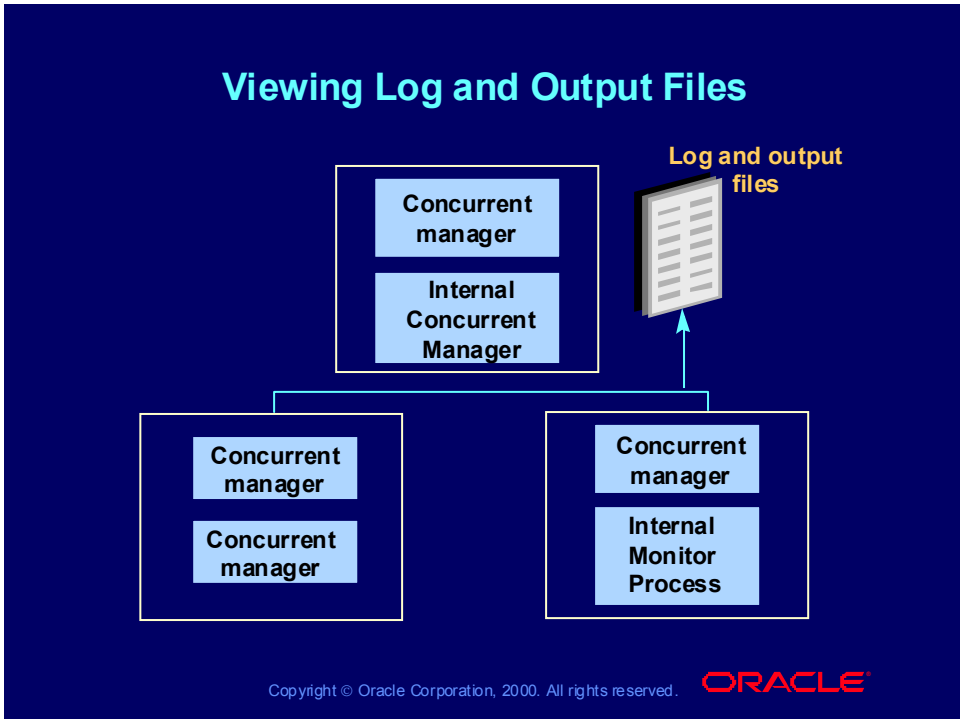
You can provide fault tolerance for the Internal Concurrent Manager by using Internal Monitor Processes.

The Internal Concurrent Manager can run on any node and can activate and deactivate concurrent managers on the same or other nodes. Because the Internal Concurrent Manager must be active at all times, it needs high fault tolerance. To provide this fault tolerance, parallel concurrent processing uses Internal Monitor Processes.

The sole job of an Internal Monitor Process is to monitor the Internal Concurrent Manager and to restart that manager if it fails. The first Internal Monitor Process to detect the failure of the Internal Concurrent Manager restarts the Internal Concurrent Manager on its own node.

Only one Internal Monitor Process can be active on a single node. You decide which nodes have an Internal Monitor Process when you configure your system. You can also assign each Internal Monitor Process a primary and secondary node to ensure its protection.

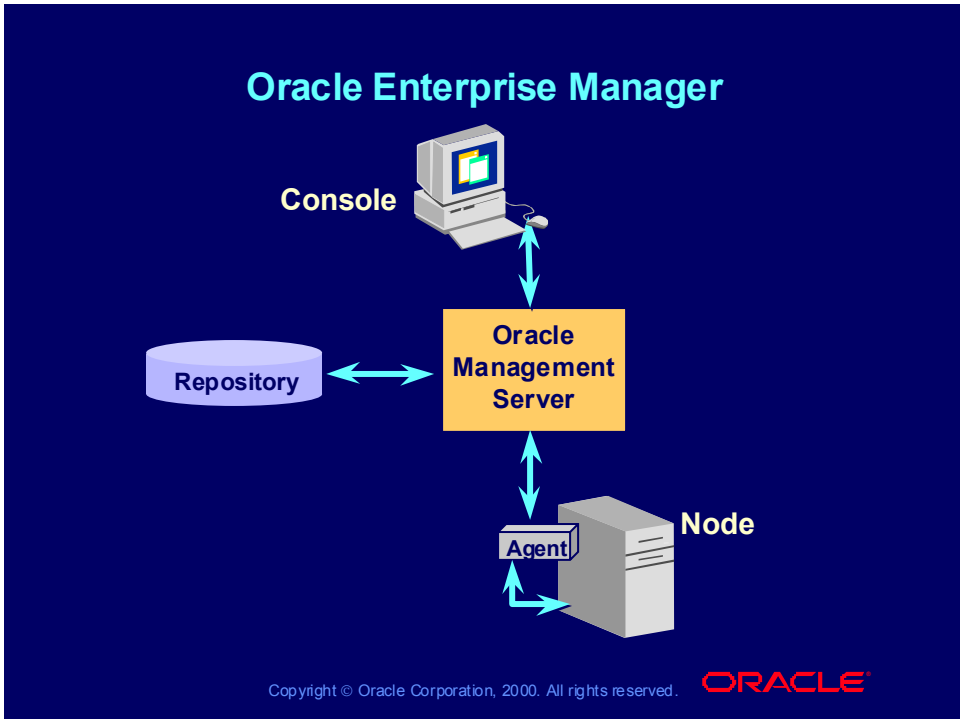
Internal Monitor Processes, like concurrent managers, can have assigned work shifts and are activated and deactivated by the Internal Concurrent Manager.



Viewing Log and Output Files

You can review log and output files from any node, regardless of which node the concurrent process runs on. You do not need to log on to a node to view the log and output files from requests run on that node. The concurrent log and output files from requests that run on any node are accessible online from any other node. This capability relies on setup steps taken at install time. For more information, refer to the installation documentation for your platform.

- INVLIBR: Contains immediate concurrent programs used by Oracle Inventory.
- MFCLIBR: Contains immediate concurrent programs used by Oracle Manufacturing.
- PALIBR: Contains immediate concurrent programs used by Oracle Projects.

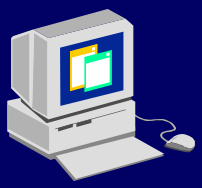


Oracle Enterprise Manager

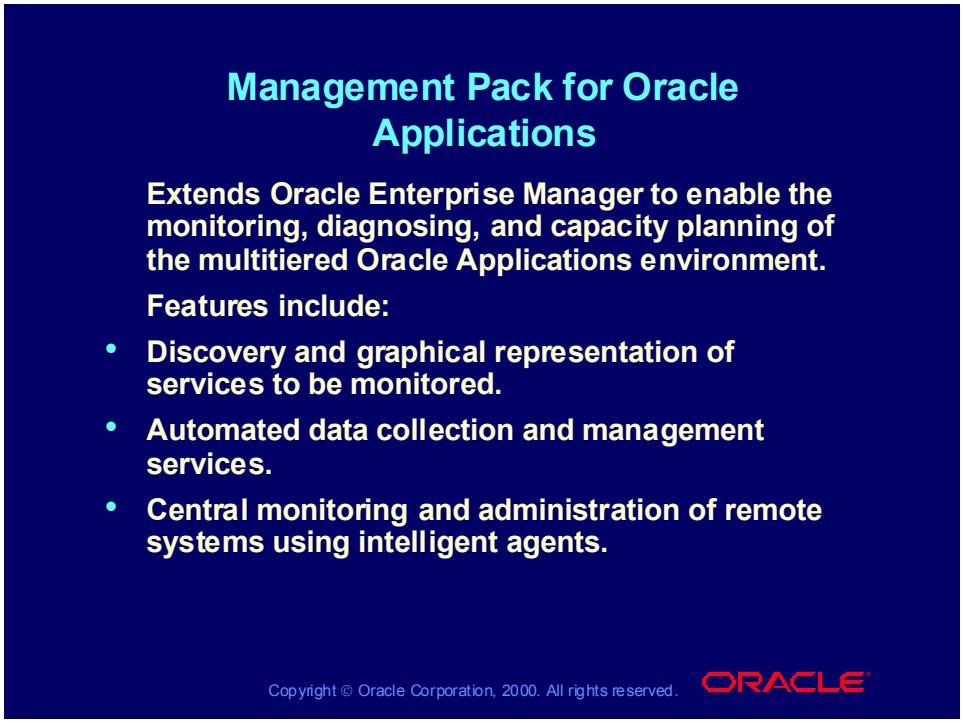
Oracle Applications has integrated its concurrent manager administrative interface with Oracle Enterprise Manager, thus enabling administrators to better manage their systems. Oracle Enterprise Manager provides a single point of administration for all available Oracle Applications instances on a system.

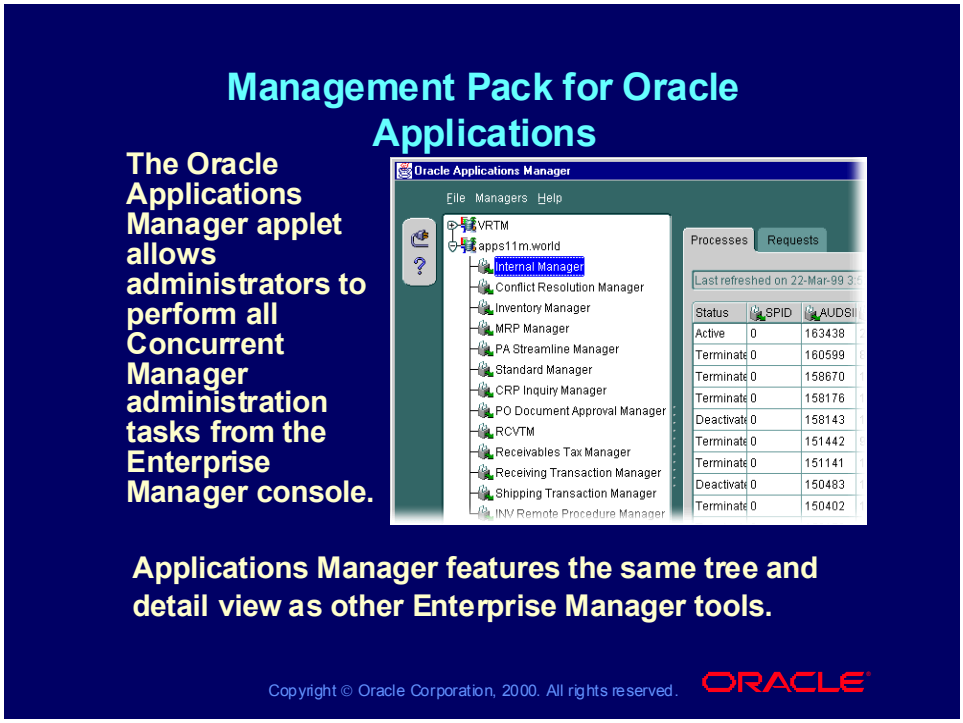
Oracle Enterprise Manager is a java-based framework consisting of multiple components that integrate into a powerful graphical user interface (GUI). Oracle Enterprise Manager combines a central console, agents, common services, and tools to provide an integrated, comprehensive system management platform for managing Oracle products.

Oracle Applications Manager



- Provides an Applications DBA-oriented subset of the current Oracle Applications System Administration functions in a new Oracle Applications console.
- Allows the performance of many tasks for several Oracle Applications instances from a single Oracle Applications Manager console.





Management Pack Tools

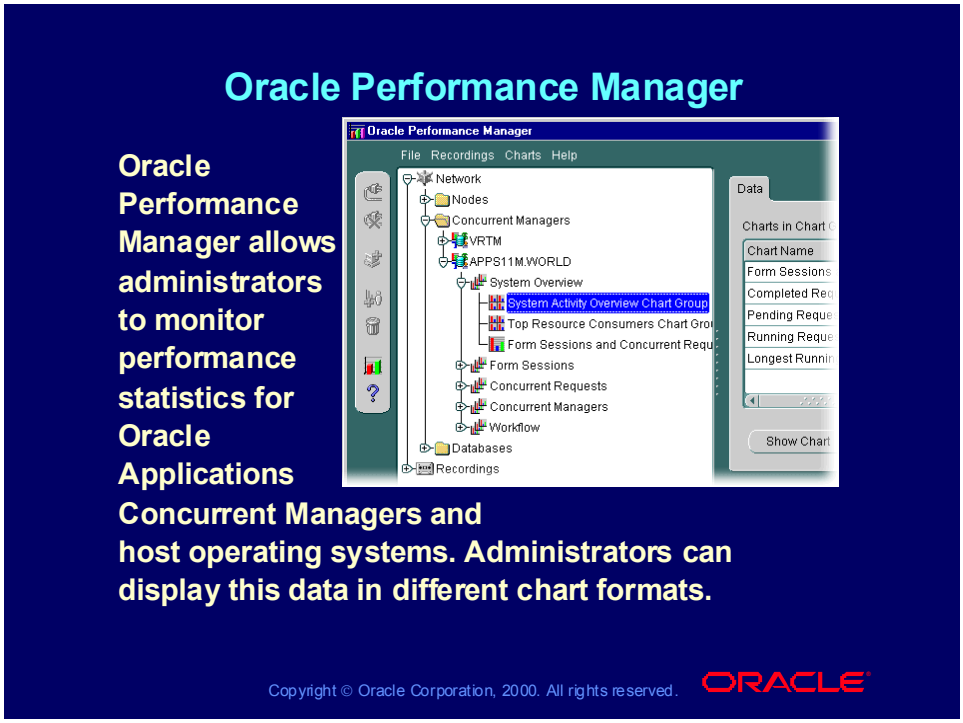
Oracle Applications Manager console

The Oracle Enterprise Manager console is extended to discover concurrent managers and to notify you should any of the servers go down. You can also define jobs for any of the Oracle Applications subsystems, allowing central administration of a distributed Oracle Applications system.

Management Pack Tools

Advanced Events

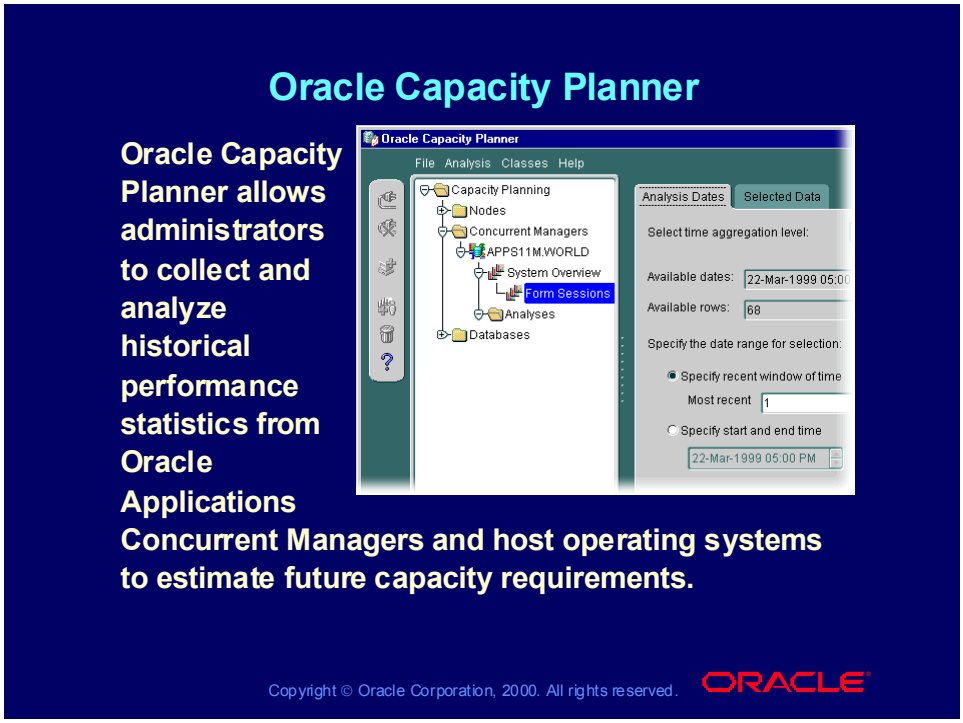
Oracle Applications Advanced Events is a library of events specific to Oracle Applications provided for lights-out event monitoring and problem detection. Additional lights-out problem resolution is provided with fix-it jobs that are configured to run automatically when an event triggers. These fix-it jobs are either custom-built or chosen from a predefined set provided with the Management Pack.



Management Pack Tools

Oracle Performance Manager

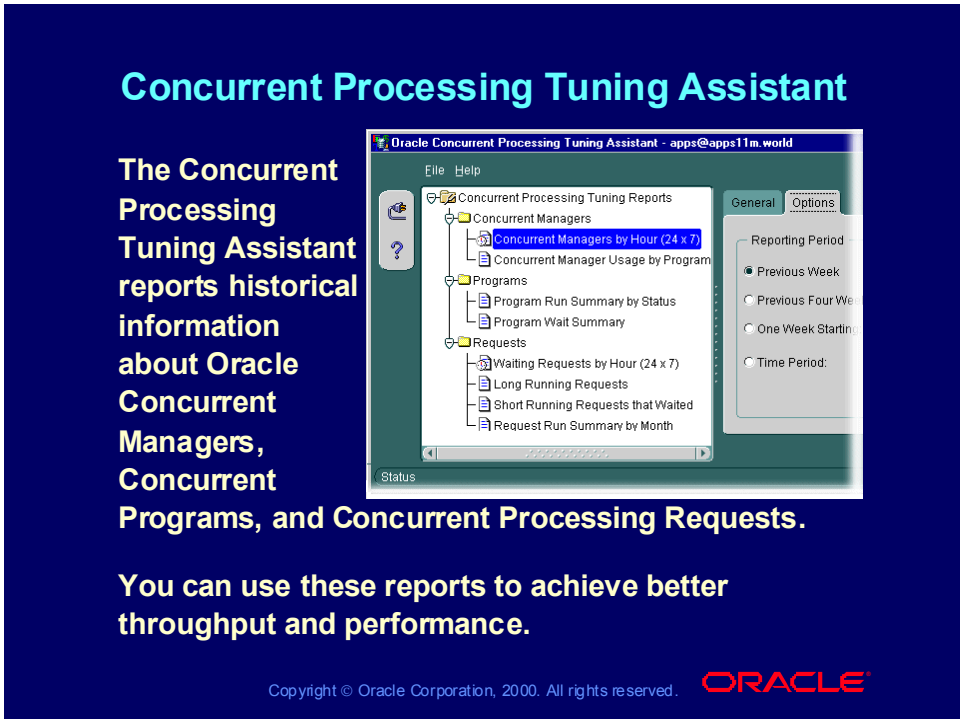
A new Oracle Applications data gatherer cartridge feeds data to Oracle Performance Manager, providing you with an extensive array of real-time monitoring charts on all concurrent managers and Forms sessions that are used by your instance.



Management Pack Tools

Oracle Capacity Planner

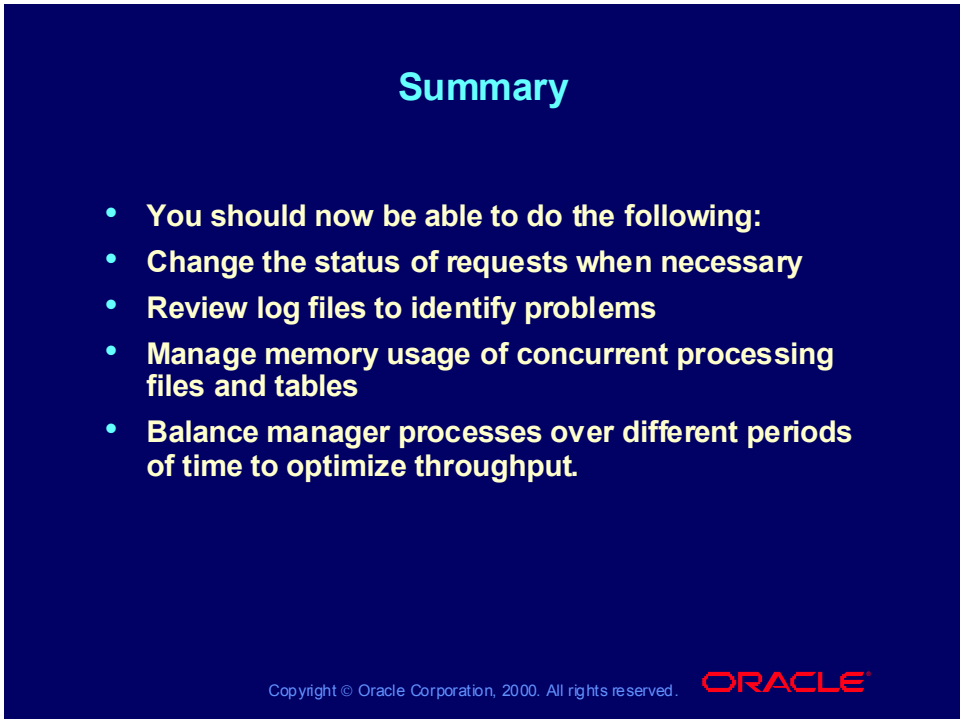
Concurrent manager performance data is gathered over time and fed to Oracle Capacity Planner for analysis of resource consumption and detection of performance anomalies.



Management Pack Tools

Concurrent Processing Tuning Assistant

Concurrent Processing Tuning Assistant allows you to examine historical processing information about Oracle concurrent processing requests and concurrent managers.

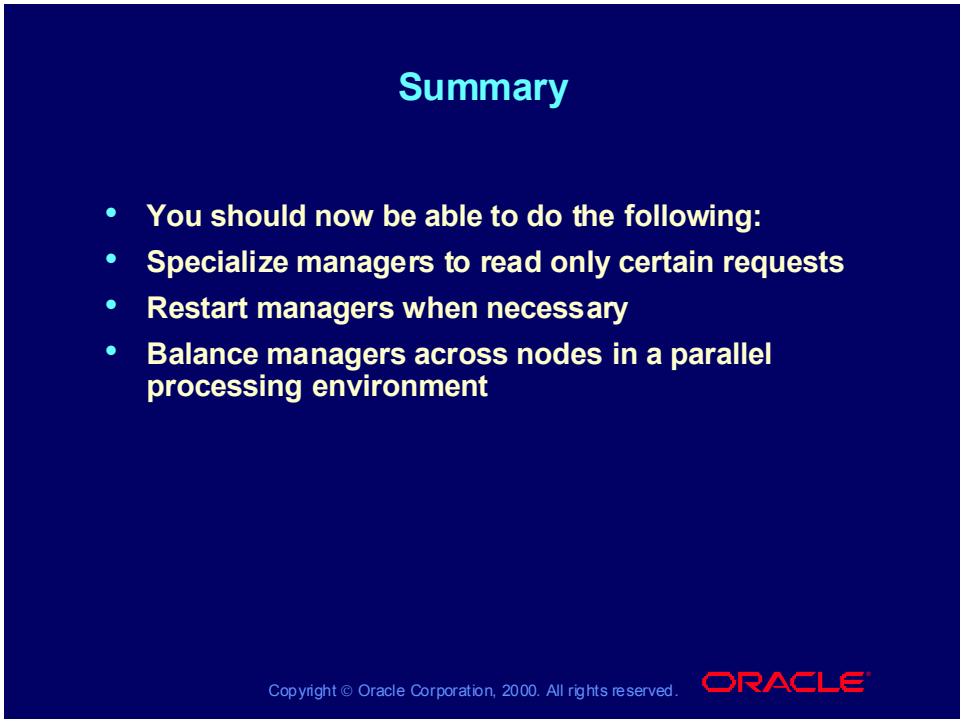


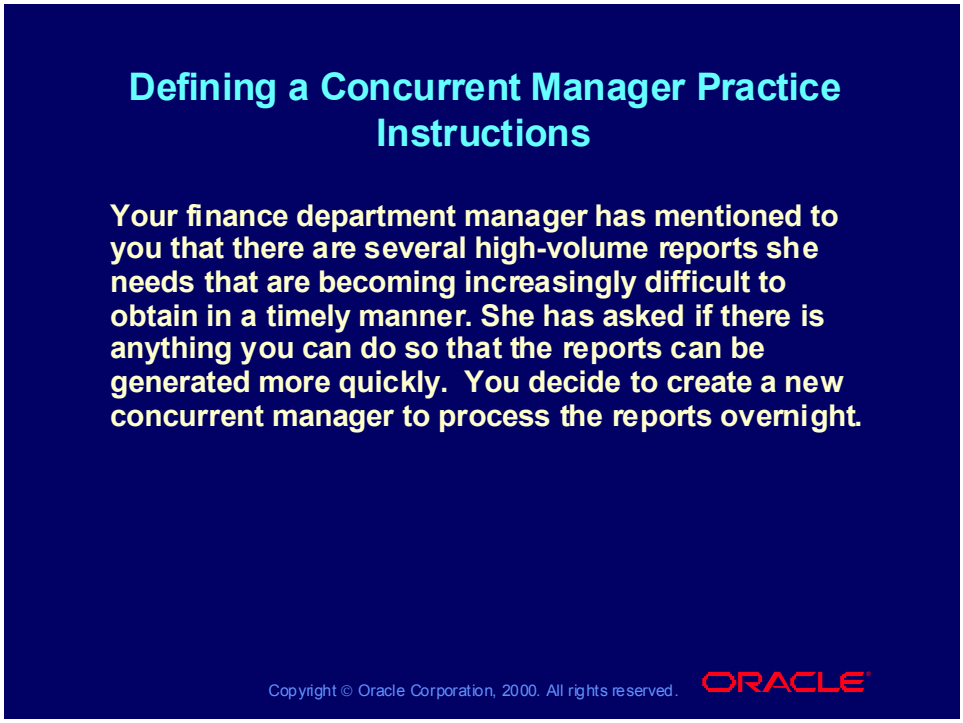
Lesson Summary

In addition to controlling access to Oracle Applications, monitoring the day-to-day processing of Oracle Applications is a very important job of the system administrator.

The system administrator is the first point of contact when users have, or suspect they have, a problem with either the results or the processing of a request. The system administrator has access to several application log files containing diagnostic information that can be of use in correcting problems.

The system administrator is also responsible for balancing workload to maintain optimum performance for users. He or she does this by creating concurrent managers to process user requests. Managers can be specialized to operate only during certain times and to process only certain types of requests. System administrators also monitor and control the activity of managers in a parallel environment.





Instructions

Use your own initials when you see *nnn* below.

1. Define two work shifts. Call your first work shift *nnn***DAYSHIFT**. This shift covers the hours from 8:00 am to 5:00 PM Monday through Friday. Call your second work shift *nnn***NIGHTSHIFT**. This shift should cover the hours of 5:00 PM until 11:59 am Monday through Friday. Remember to use military time numbering.
2. Define a new concurrent manager. Use the following definitions:

   Manager: *nnn***CLASSMANAGER**

   Short Name: Your Company's Initials Mgr

   Application: Your custom application

   Description: Your Company's Name class manager

   Type: Concurrent Manager

   Program Library: FNDLIBR

   Allow all other fields to default.
3. Assign the two work shifts to the manager. Give the manager a larger number of target processes during the night work shift.

Practice Solutions

Define Your Workshifts

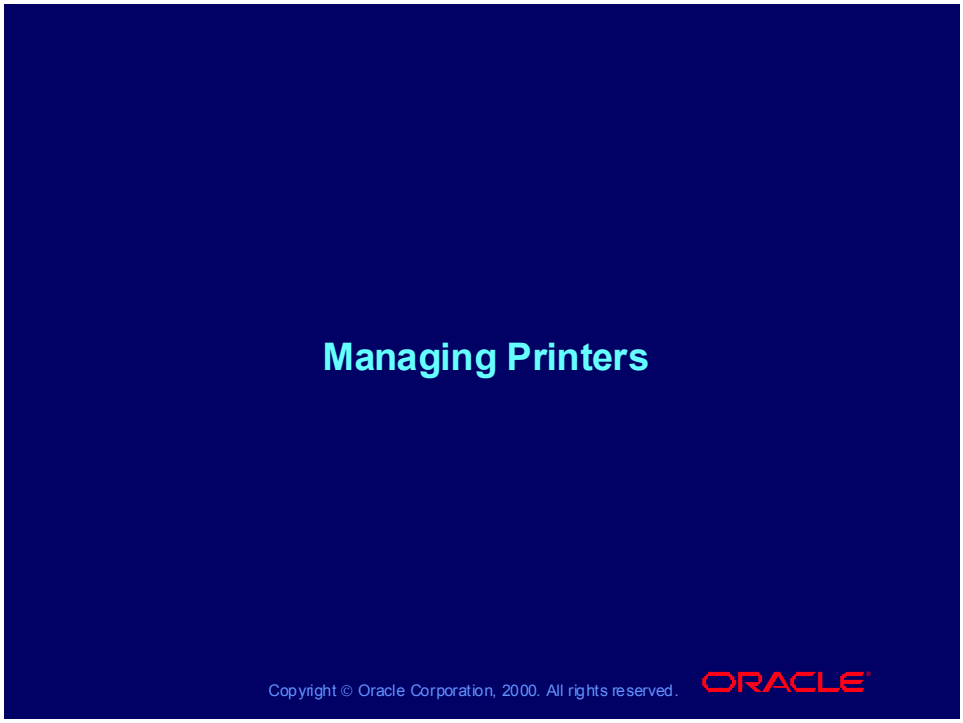
1. Navigate to (N) Concurrent > Manager > Workshifts.
2. From the menu, select File > New, or click the New icon on the toolbar.
3. Enter the data from the instructions in the appropriate fields in the window.
4. Continue to add in the appropriate information to define your second work shift.
5. Click Save to save your work.

Define a Concurrent Manager

6. Navigate to (N) Concurrent > Manager > Define.
7. Enter the data from the instructions in the appropriate fields in the window.
8. Click Workshifts to display the Work Shifts window. Assign the work shifts that you created earlier in this practice by selecting them from the list of values in the Work Shift column.
9. Enter the number of processes appropriate for your workshifts.
10. Click Save to Save your work.

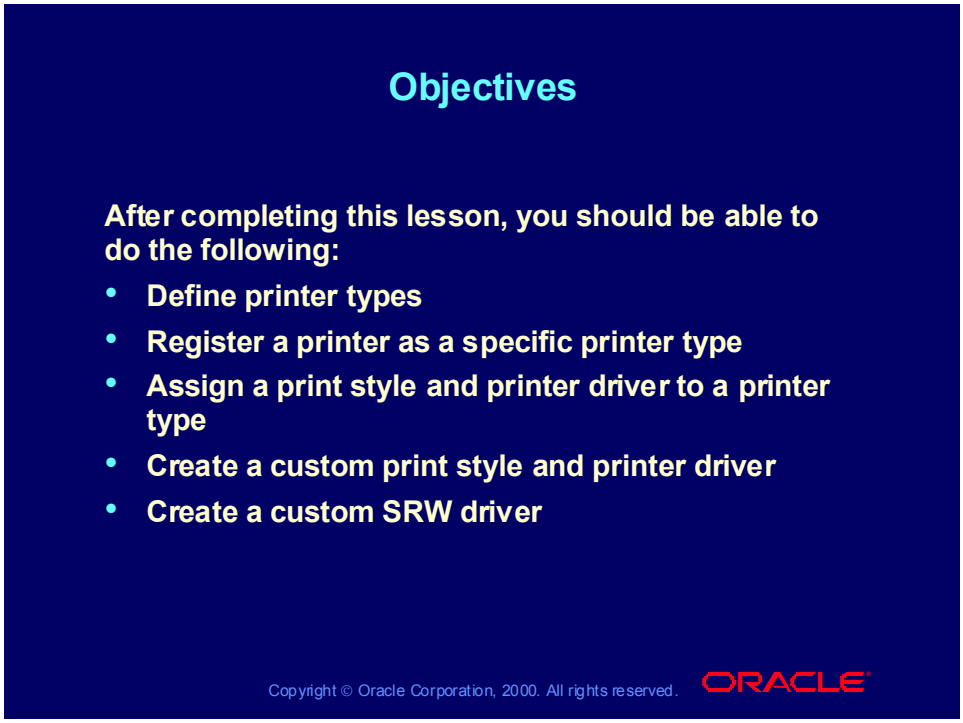
Managing Printers

Chapter 5



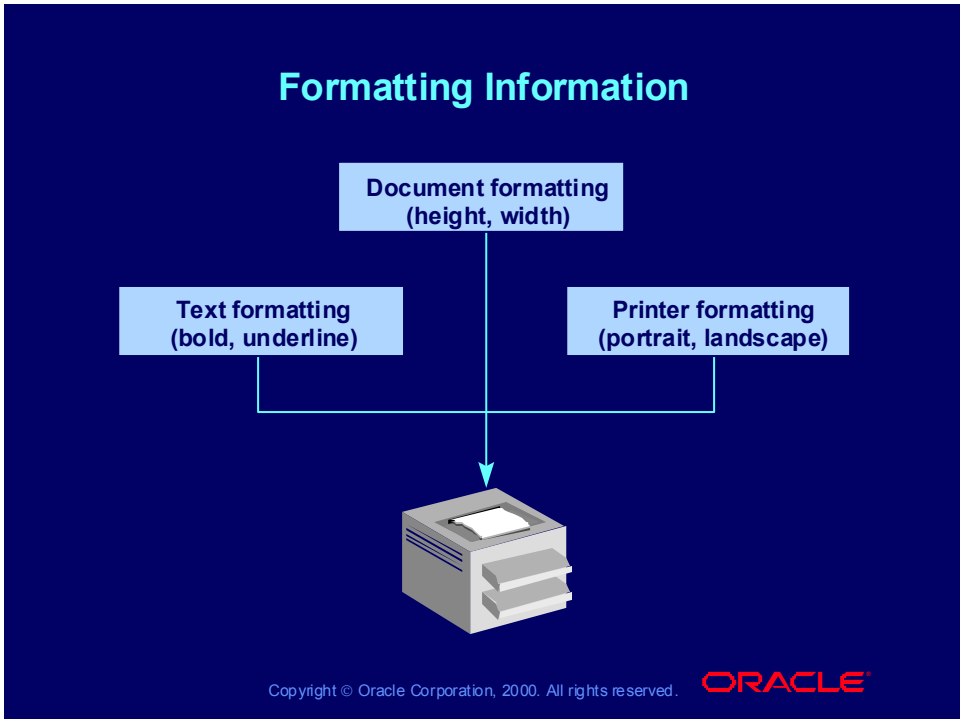
Notations:

(N) = Navigator
(T) = Tab
(I) = Icon
(H) = Hyperlink
(B) = Button
(Help) = Oracle Applications Help System



Lesson Aim

Installing a new printer is a typical responsibility of the system administrator. A less common need is to customize the software that supports printers. This lesson shows you how to accomplish both tasks.



Formatting Information

For a printer to produce a report, it requires three basic types of formatting instructions: text, document, and printer.

Text Formatting

- Oracle Reports generates reports for the various Oracle Applications.
- When Oracle Reports formats text as bold or underlined, and sets page breaks, formatting codes are used.
- A SQL*ReportWriter (SRW) driver defines text formatting codes used by Oracle Reports.

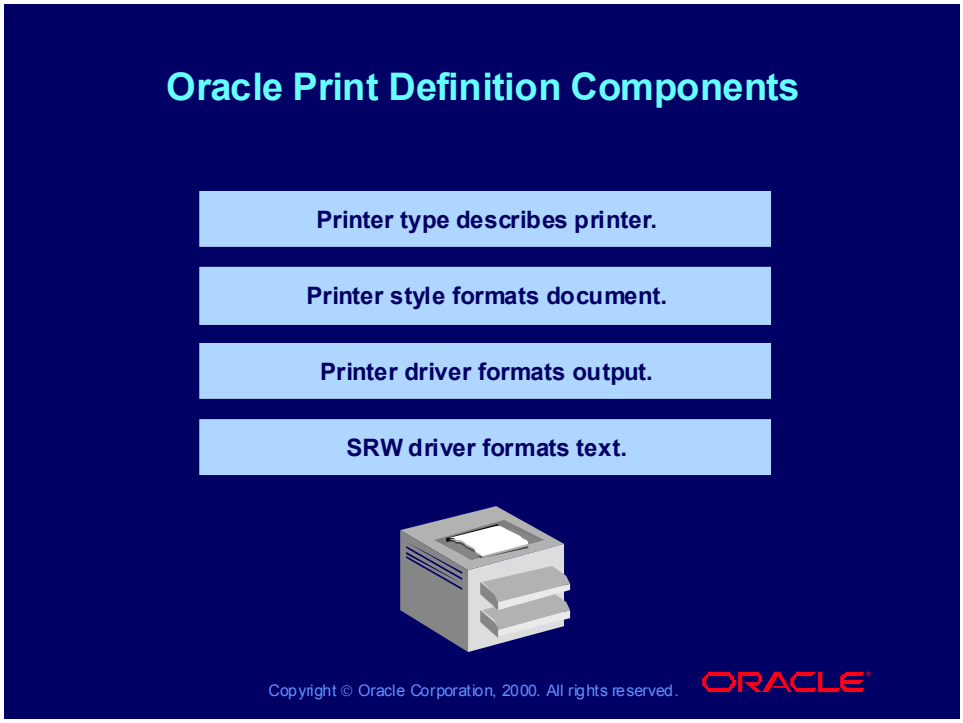
Document Formatting

- The dimensions for a report output file are predefined as the number of columns and rows (width and height).
- A print style defines the dimensions for a report output file.

Printer Formatting

- A printer prints in a certain orientation, portrait or landscape.
- A printer can also start printing with a specific font and type size. These instructions are contained in an initialization string.
- A printer driver defines initialization and reset strings.

Oracle Print Definition Components



Required Formatting Information for Components

The formatting information required by your printer is specified by the components shown on this figure.

Printer Type

Describes what kind of a printer you have. This is the manufacturer and model—for example, a DEC LN03 printer or an HP LaserJet III printer.

Printer Style

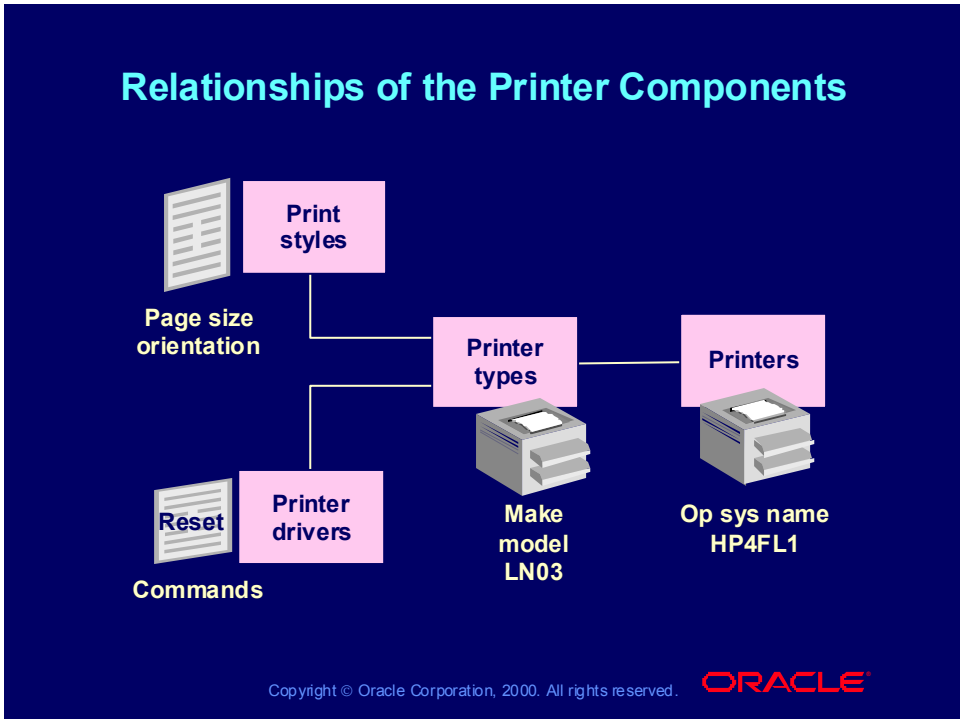
- Describes how a report should be printed
- Determines the number of lines (rows) per page
- Determines the width of each line (number of columns)
- Controls whether to print a header page

Printer Driver

- Contains the set of commands that tell a printer how to print in the print style chosen
- Initializes printing orientation
- Resets printer driver's instructions for next print job

Printer Drivers Versus SRW

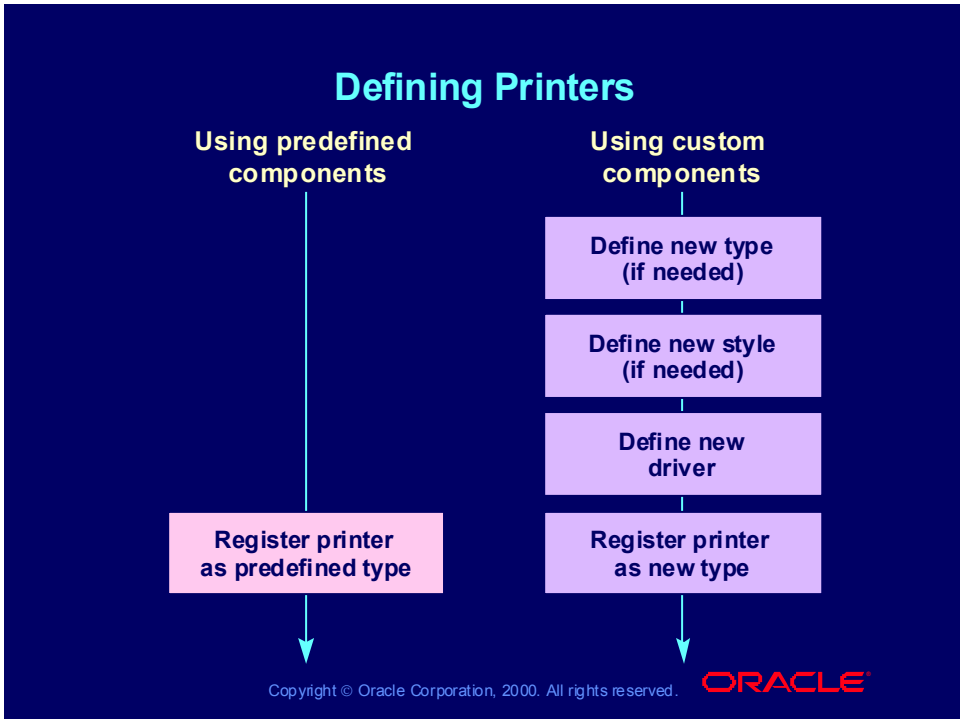
- A printer driver formats the destination printer.
- An SRW driver formats text and sets page breaks in an Oracle Reports file.



How the Print Components Are Related

Oracle Applications uses the components shown on the previous figure to store the information necessary to print a report. This figure shows how the components are related to provide a flexible method of defining your print environment. The printer type is at the heart of your print definitions. The figure shows that:

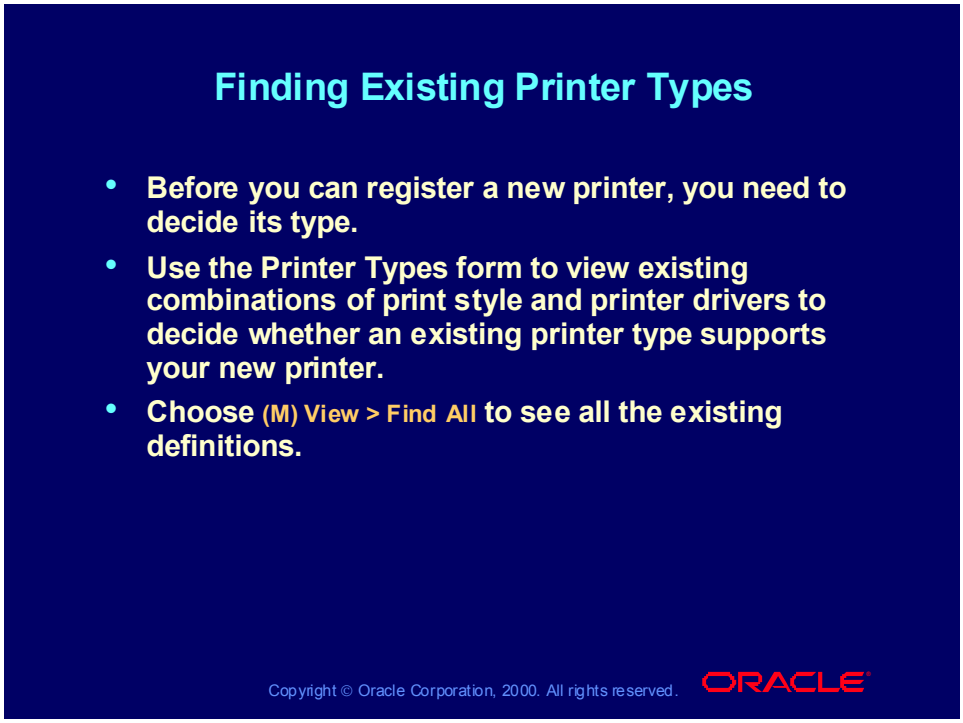
- A printer is registered as a printer type.
- A printer style is associated with a printer type.
- A printer driver is assigned to a printer type.



How to Define Printers

The figure shows the sequence of operations to define printers. Generally, you simply register a new printer by using existing definitions as shown in the path on the left. However, in some cases you must modify existing definitions or create new definitions to accommodate a new printer as shown on the right.

Finding Existing Printer Types

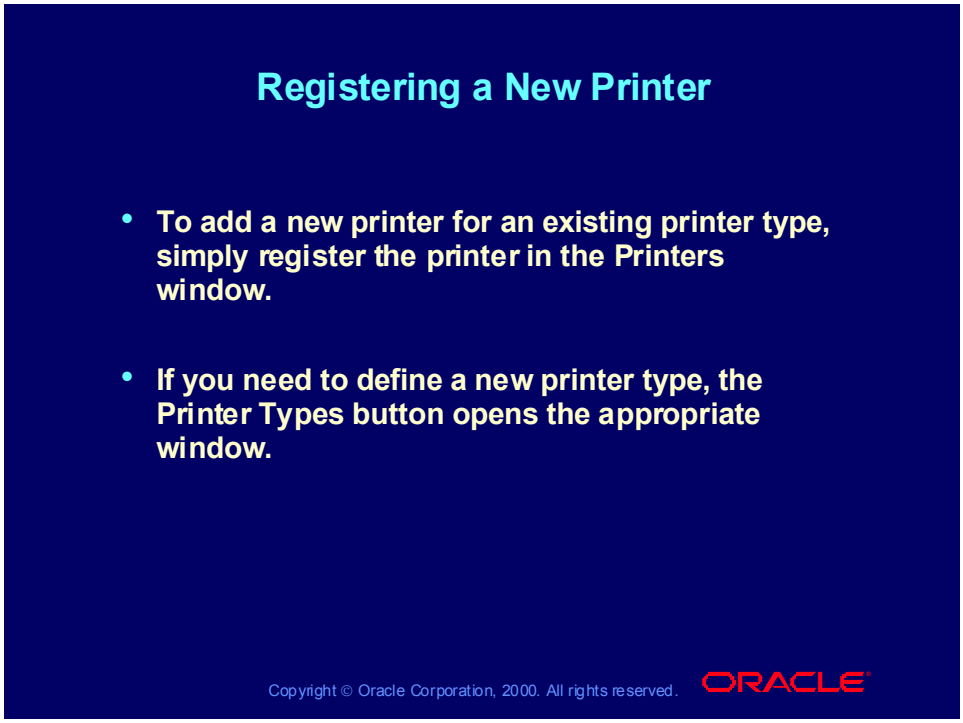


Printer Types Window

(N) Install > Printer > Types

For a complete explanation of the fields in this form see:

(Help) Applied Technology > Oracle Applications System Administration > Printers > Printer Types Window

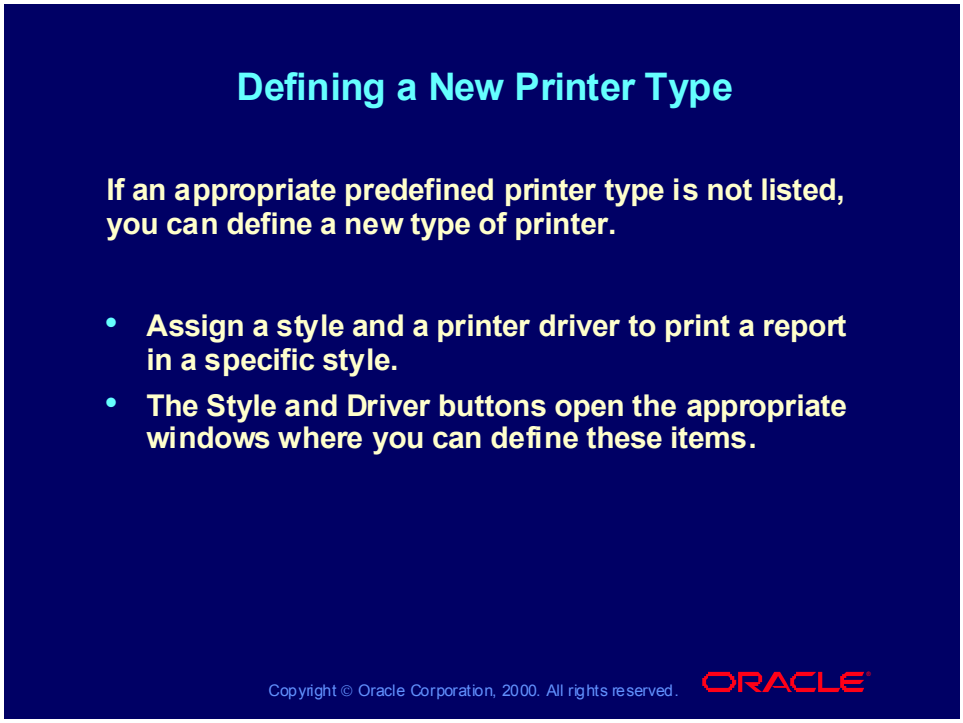


Registering a New Printer

(N) Install > Printer > Register

For a complete explanation of the fields in this form see:

(Help) Applied Technology > Oracle Applications System Administration > Printers > Printers Window

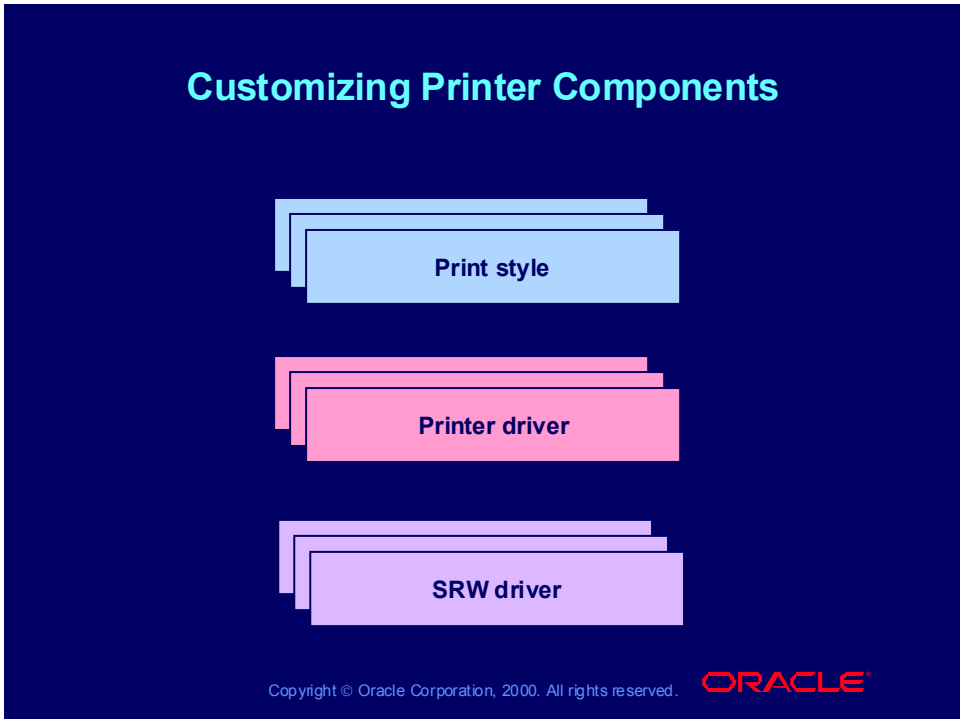


Defining a New Printer Type

(N) Install > Printer > Types

For a complete explanation of the fields in this form see:

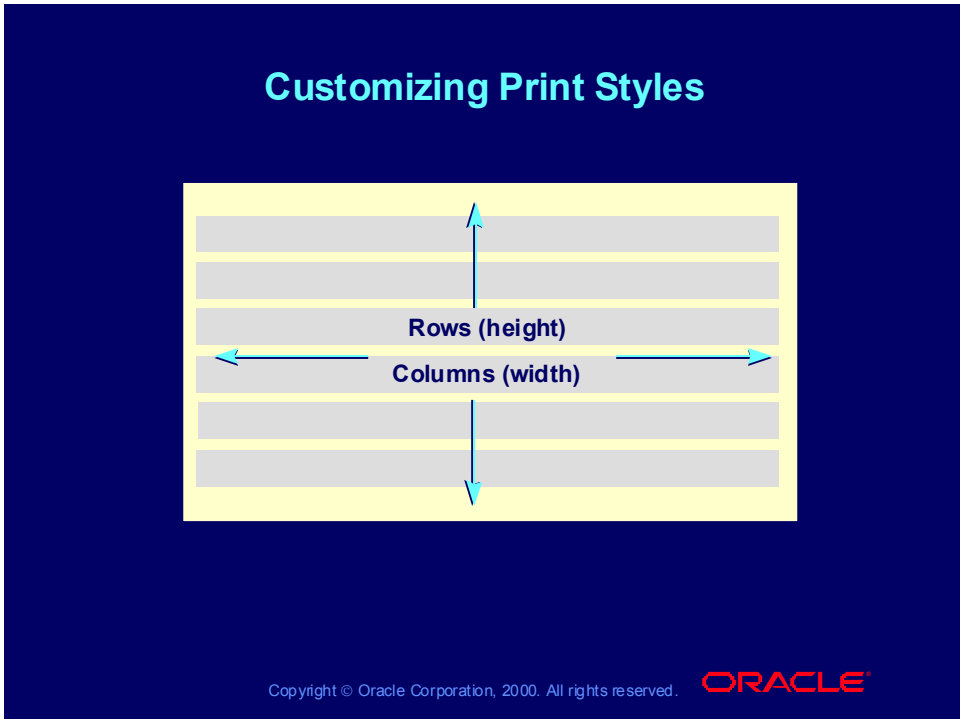
(Help) Applied Technology > Oracle Applications System Administration > Printers > Printer Types Window



Ways to Customize Printer Components

You can customize your Oracle Applications printing capabilities by:

- Customizing a print style using the Print Styles window
- Customizing a printer driver using the Printer Drivers window
- Creating or modifying an SRW (SQL*ReportWriter) driver using a text editor



Customizing Print Report Rows and Columns

(N) Install > Printer > Style

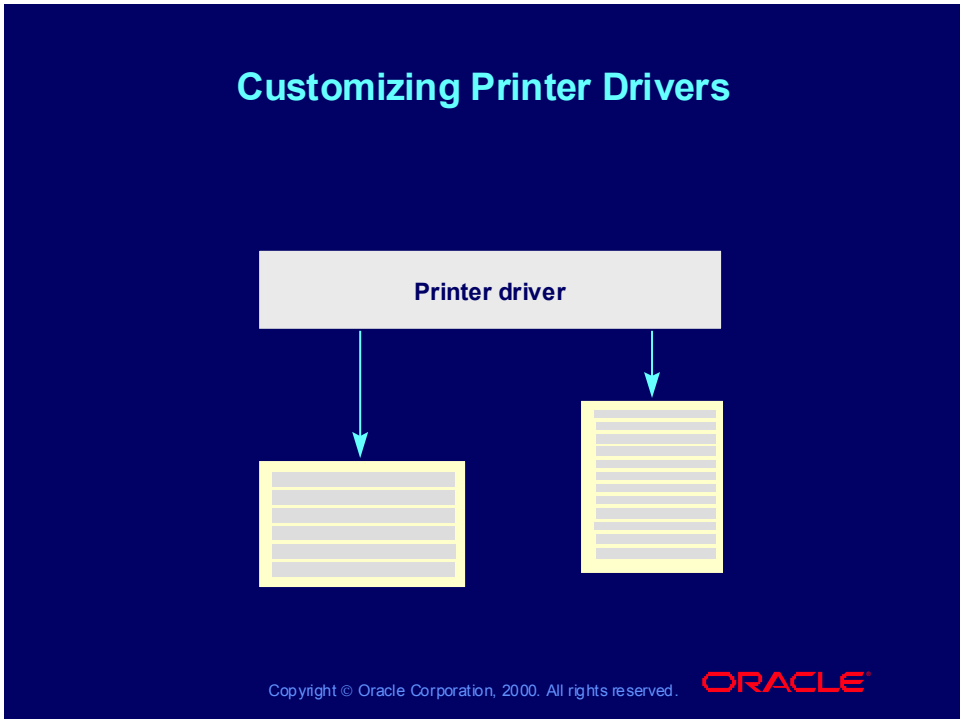
You can define a custom print style to change the number of columns (width) and rows (height) for a report.

Style Requirements

- A print style must satisfy the concurrent program's definition of minimum and maximum number of columns (width) and rows (height).
- A print style must be assigned to the target printer type.

For a complete explanation of the fields in the Print Styles window see:

(Help) Applied Technology > Oracle Applications System Administration > Printers > Printer Styles Window



Customizing Printer Drivers

(N) Install > Printer > Driver

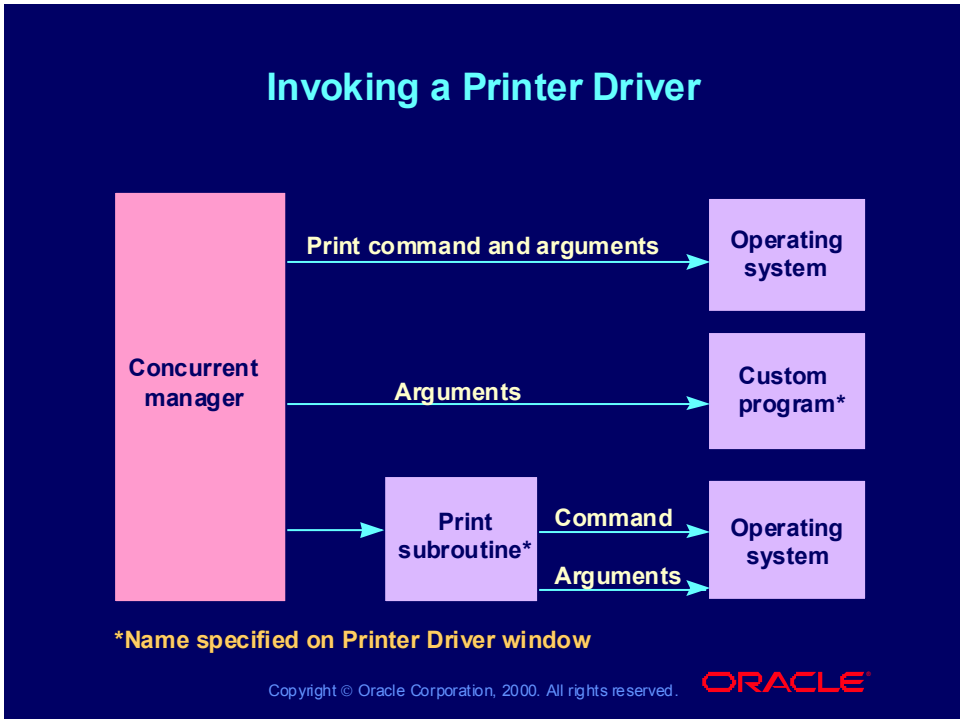
Printer drivers are responsible for communicating to the printer the information necessary to print the report in the style required by the printer style selected. Create custom printer drivers to support print styles for new or existing printer types. Here are some other possible situations in which you could need to define a new printer driver.

- Customize a printer driver when a printer type requires different control characters.
- Customize a printer driver when the control characters have a different meaning because of your operating system and platform.
- Customize a printer driver when language translation changes the meaning of the control characters.
- Customize a printer driver when the printer needs special control characters to select different character sets.
- Customize a printer driver to change the printer's default font for a report (Initialization string only).

Refer to the printer manufacturer's documentation for the control codes and escape sequences the printer understands. Refer to the printer's manual—for example, a PCL or PostScript manual—for additional information if necessary.

For a complete explanation of the fields in the Printer Drivers window see:

(Help) Applied Technology > Oracle Applications System Administration > Printers > Printer Drivers Window



Invoking a Printer Driver

There are three methods to invoke a printer driver.

Command

- The concurrent manager issues an operating system print command and its arguments.
- An operating system print command along with all its arguments is entered in the Arguments field of the Printer Drivers form.

Program

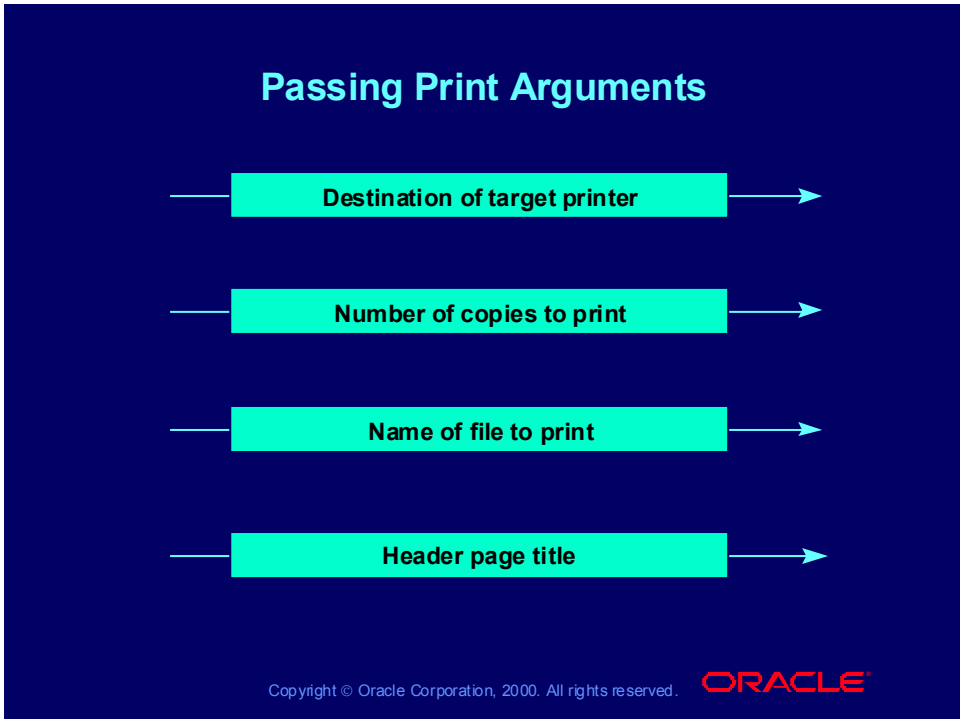
- The concurrent manager calls a custom print program and passes arguments to the program.
- The name of a custom print program is entered in the Name field, and any arguments to be passed to the program are entered in the Arguments field of the Printer Drivers form.

Subroutine

- The concurrent manager calls a predefined Oracle Applications subroutine that passes a print command and arguments to the printer via the operating system.
- A subroutine name appears in the Name field of the Printer Drivers form.
- The Arguments field is disregarded. The concurrent manager reads the Initialization and Reset escape sequences.

- On UNIX systems this method, unlike the command method, does not start an operating system shell along with the print command.

Passing Print Arguments



Types of Print Arguments Passed

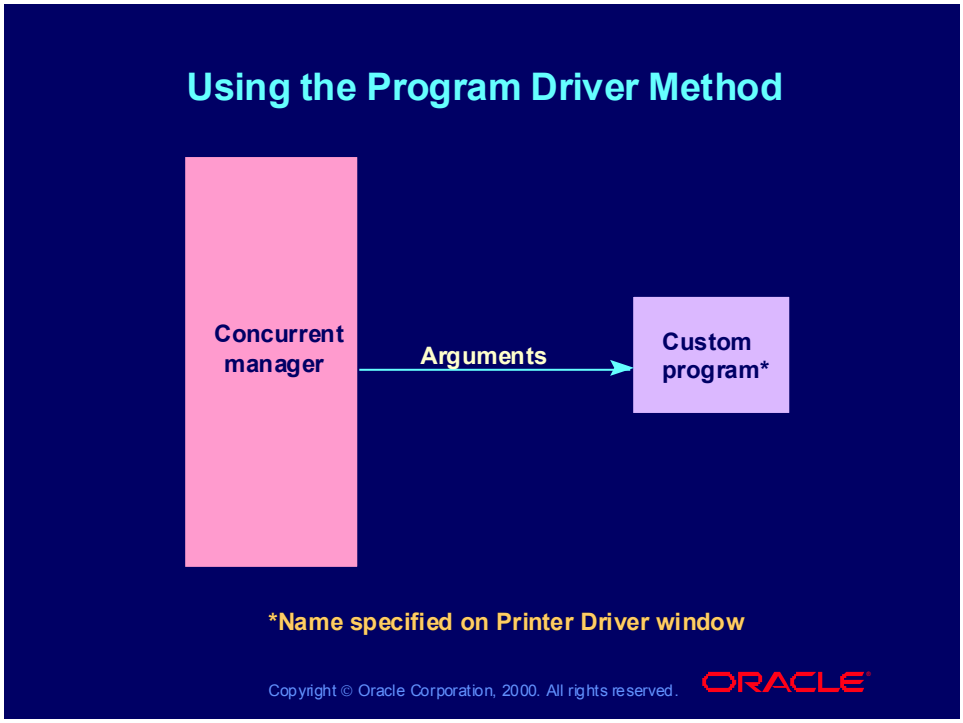
You can rely on a concurrent manager to supply four values as arguments to the operating system print command it issues or a custom print program that it calls.

Print Arguments

- Destination or target printer
- Number of copies to print
- Name of the file to print
- Title that appears on the header page
- The header page is printed when the Suppress Header Page field is set to No in the Print Styles window.

Print Commands

- Print commands vary; however, the tokens for which values are retrieved are always the same.
- Print commands are operating system-dependent. Refer to *Installing Oracle Applications*.



Program Driver Method Considerations

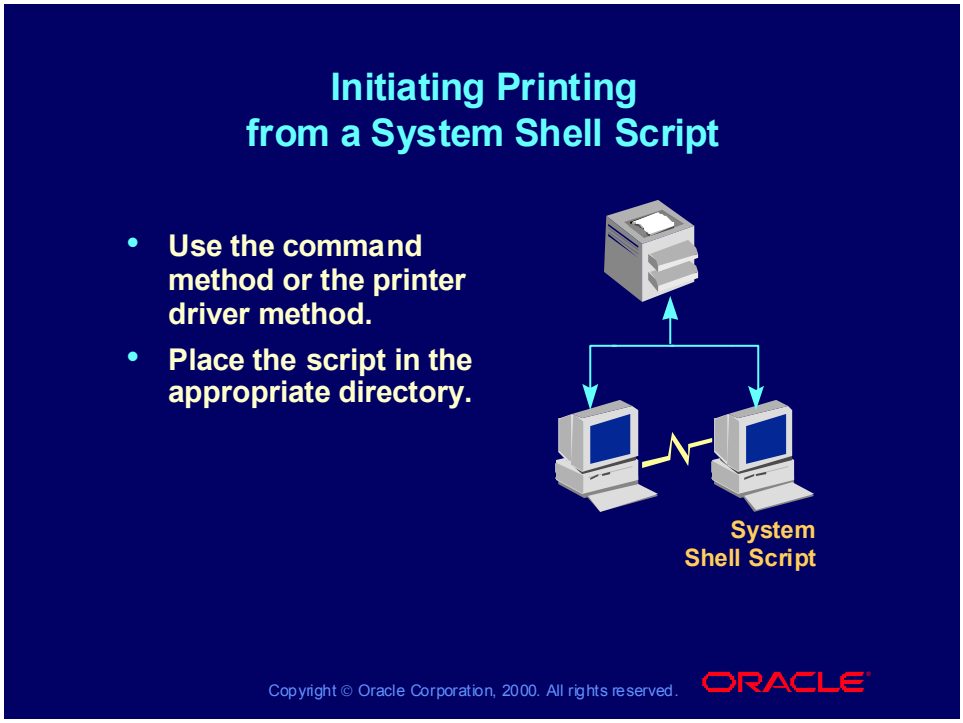
(N) Install > Printer > Driver

Location of Custom Print Programs

To call a custom print program by using the Printer Drivers window, enter the program name, including the full path to the program, in the Program Name field. The path to the program name is not necessary if the program location can be identified by the operating system's PATH environment variable—that is, it is in the $PATH variable name.

For platforms where the equivalent of a $PATH variable does not exist, use the full path name. A path can be up to 255 characters.

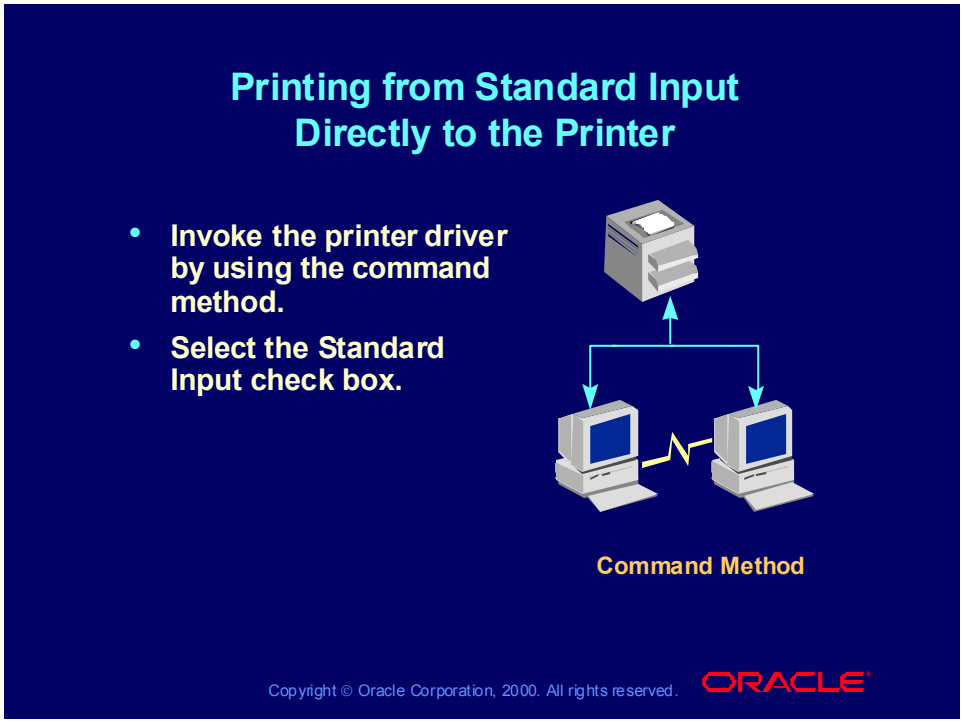
Custom print programs are not registered as concurrent programs with Oracle Application Object Library but are called after the concurrent process has completed.



How to Initiate Printing from a System Shell Script

To initiate printing from an operating system shell script:

- For operating system shell scripts, the printer driver method can be either Command or Program, as long as you populate the argument field correctly.
- The script for a command shell procedure—for example, a UNIX shell or a VMS dcl—should reside in $FND_TOP/$APPLBIN.



How to Print from Standard Input

Standard input refers typically to data or commands entered from the keyboard. It can be from a redirected source such as a file or the output of a program.

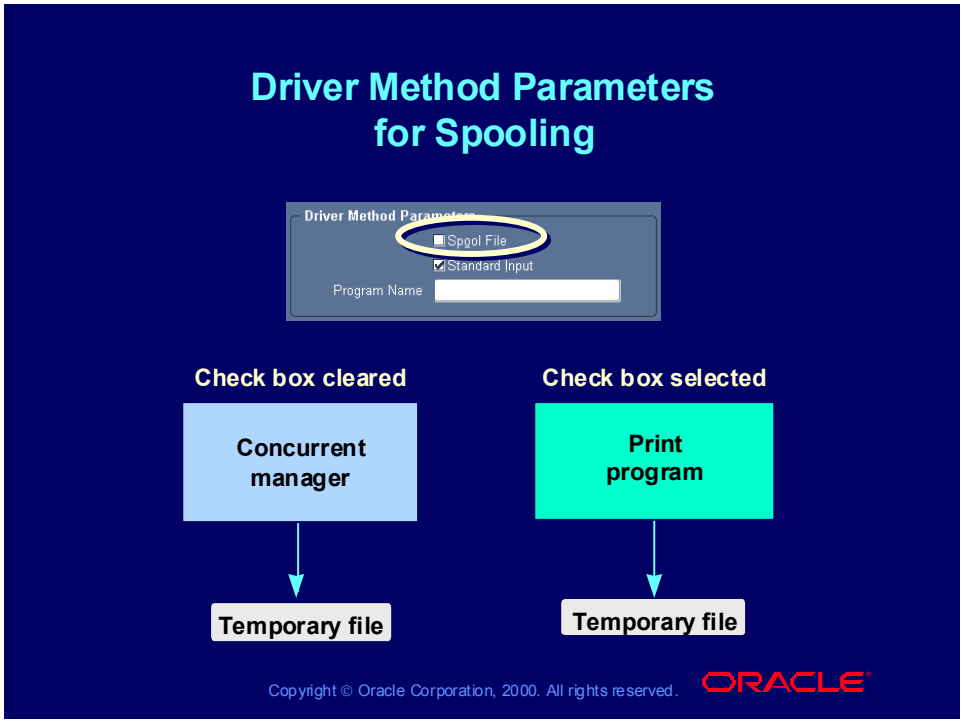
Examples of Using Standard Input

- When running a pipe in UNIX such as “cat filename | lpr” rather than just “lpr filename,” the output file is sent to the stdin (standard input).
- The UNIX print command lpr accepts standard input when a filename is not specified.

Standard Input Settings

- When you select the Standard Input check box, the printer driver can send standard input to the printer.
- Clear the Standard Input check box if the driver method is Program or Subroutine or the operating system print command or print program does not accept standard input.
- When the Standard Input check box is cleared, the print command issued by the concurrent manager runs asynchronously. The concurrent manager issues the command and does not wait for an operating system response.

Driver Method Parameters for Spooling



Setting Spooling Specifications

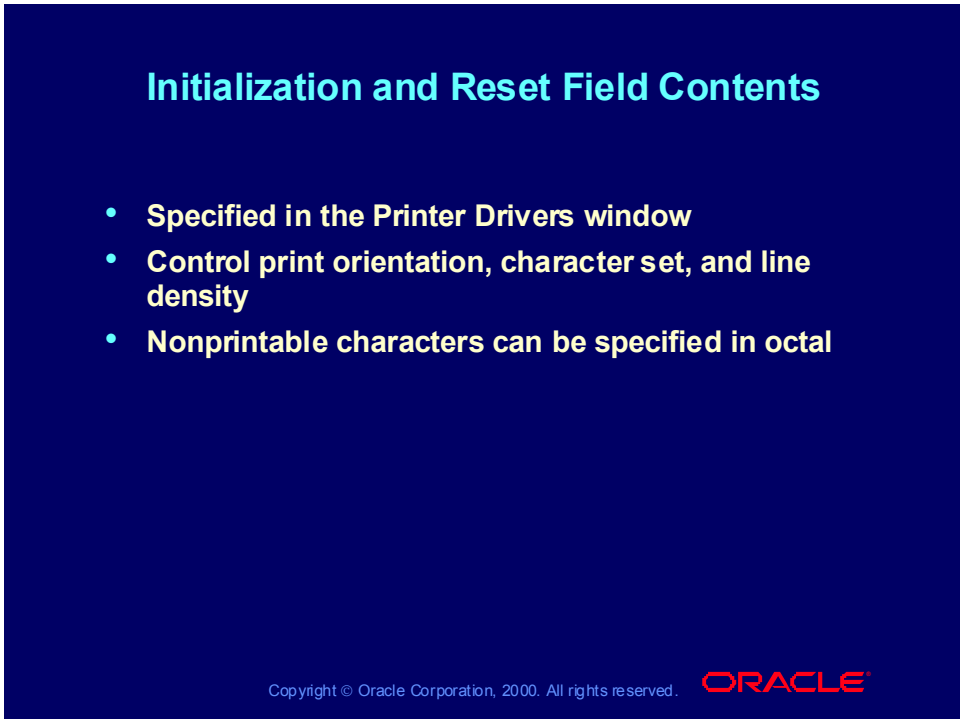
A spool file contains a copy of a file to be printed and the initialization and reset strings of the printer driver. Spooling is the process of sending a spool file to the spooling area of the printer. Spool files are deleted after printing.

Spool File Check Box Selected

- Spool filing specifications are set on the Printer Drivers window in the Define Method Parameters region. (N) Install > Printer > Driver.
- The Spool File check box is selected only if the print program creates its own temp file. Selecting the Spool File check box prevents the concurrent manager from creating its own temp file.
- When you select the Spool File check box, it is recommended that Initialization and Reset fields are null and the Standard Input check box is cleared.

Spool File Check Box Cleared

- When the Spool File check box is clear, the concurrent manager makes a copy of the file to be printed and sends the copy to the spooling area of the printer.
- Clear the Spool File check box when an operating system print command or a print program does not make a copy of each file to be printed.



When to Use Initialization and Reset Strings

Edit Initialization and Reset strings when a printer type requires different control characters, escape sequences, or instructions.

Initialization and Reset Strings

- Use the Initialization and Reset fields to set and reset the orientation, character set, and line density for your printer.
- Initialization and Reset strings consist of control characters and escape sequences.
- A control character can be represented by a caret (^) followed by another character.
- An escape sequence can be represented by a slash (/).

Example: Escape Sequence

For nonprintable characters, you can represent their value in octal mode. For example, represent 0x26 as /046.

Creating a Custom SQL*ReportWriter Driver

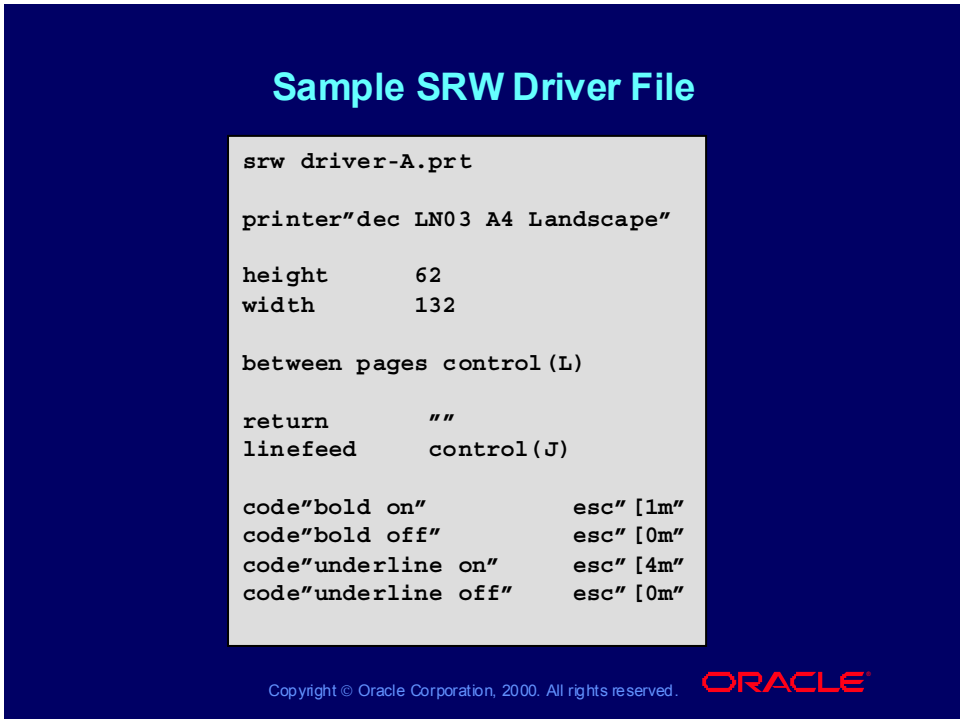
Customize Oracle Reports SRW drivers if a printer type does not properly interpret the control characters that set page breaks, or bold or underlined type in applications reports.

SRW Drivers

- SRW drivers are read by Oracle Reports when a report is generated and insert control characters that tell the destination printer where to set page breaks and which characters to format as bold or underlined.
- SRW drivers are designed for the DEC LN03 printer and all printers that understand the same control characters as the LN03.
- An SRW driver is used during the generation of a report. A printer driver is used when the completed output file is sent to the printer.
- SRW driver files reside in $FND_TOP/$APPLREP and have the extension .prt.

Creating a New SRW Driver

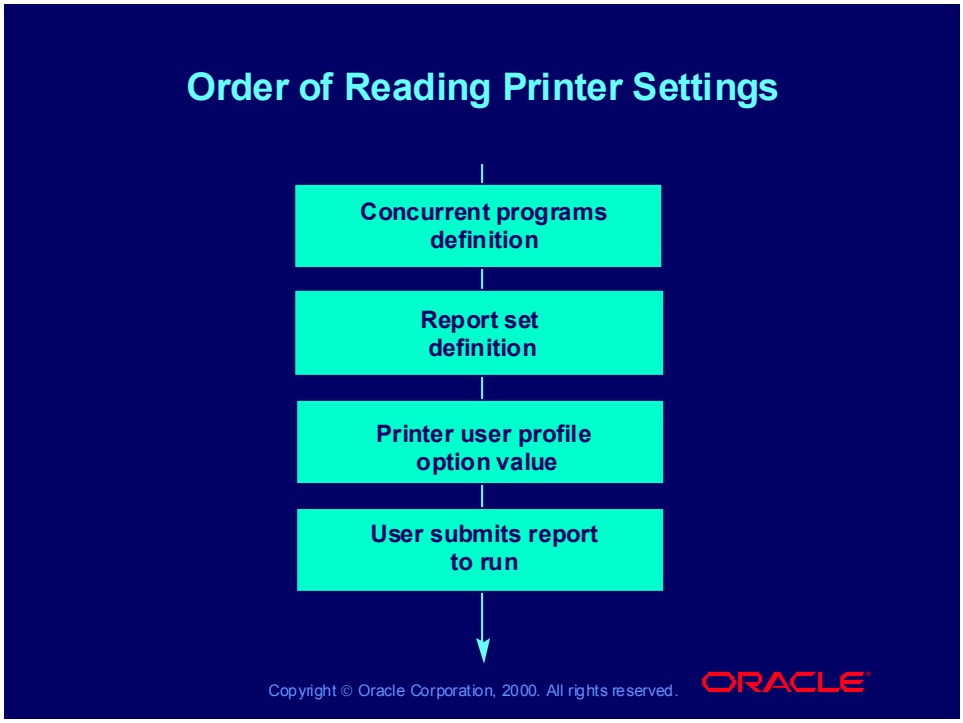
1. Copy an existing SRW Driver (.prt file) and rename the copy before starting any text editing.
2. Modify the new file with new control characters.
3. Place the modified copy of the SRW driver file in $FND_TOP/$APPLREP. Oracle Reports will use the new driver if it is associated with a print style and/or printer driver definition.



Sample SRW Driver File

The slide shows the definition for the A.prt driver file and shows the information contained in a typical SRW file.

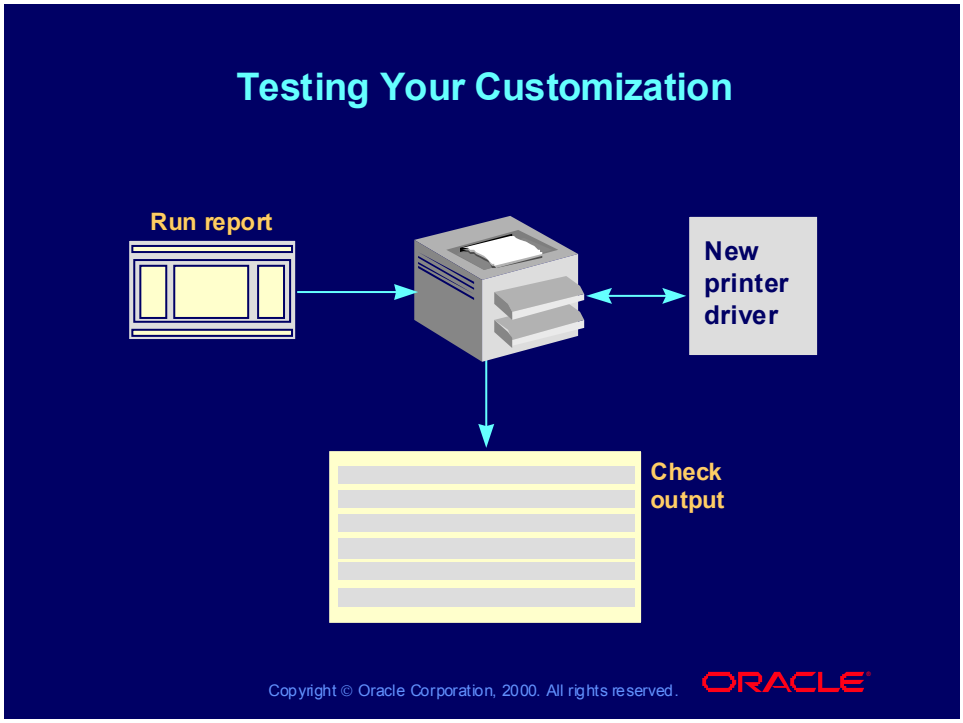
Order of Reading Printer Settings



Hierarchy of Printer Assignments

You can restrict concurrent programs and reports to send their output to a specific printer, or you can provide a default printer.

- At the concurrent program level the system administrator can define a concurrent program to always direct its output to only one printer. This setting cannot be overridden by users.
- At the request set level, the system administrator can assign a default printer for each report in the request set or for the entire request set. If the request set is unowned, no one can override this setting.
- Also at the request set level, an application user can assign a default printer to a report within the set or to the entire set. This value can be overridden by the administrator.
- At the personal profile level, an application user can assign a default printer for all of his or her reports. This value overrides any other values.
- At the site level, the system administrator can assign a default printer for all reports. This can be overridden by users.



Testing Your Customization

You can verify printer driver definitions by printing different styles from each printer type you are using.

Initialization String

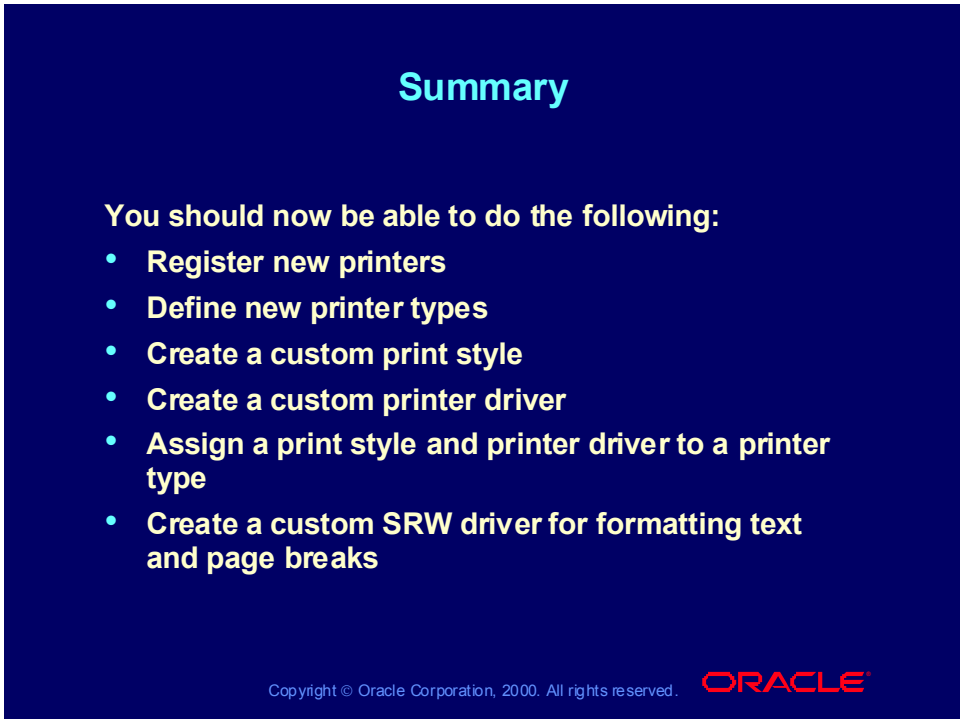
- Print a short report to verify that the page's printing orientation is correct. Edit page orientation instructions in the Initialization string.
- If you want to change the printer's default font for the report, include that information in the Initialization string.

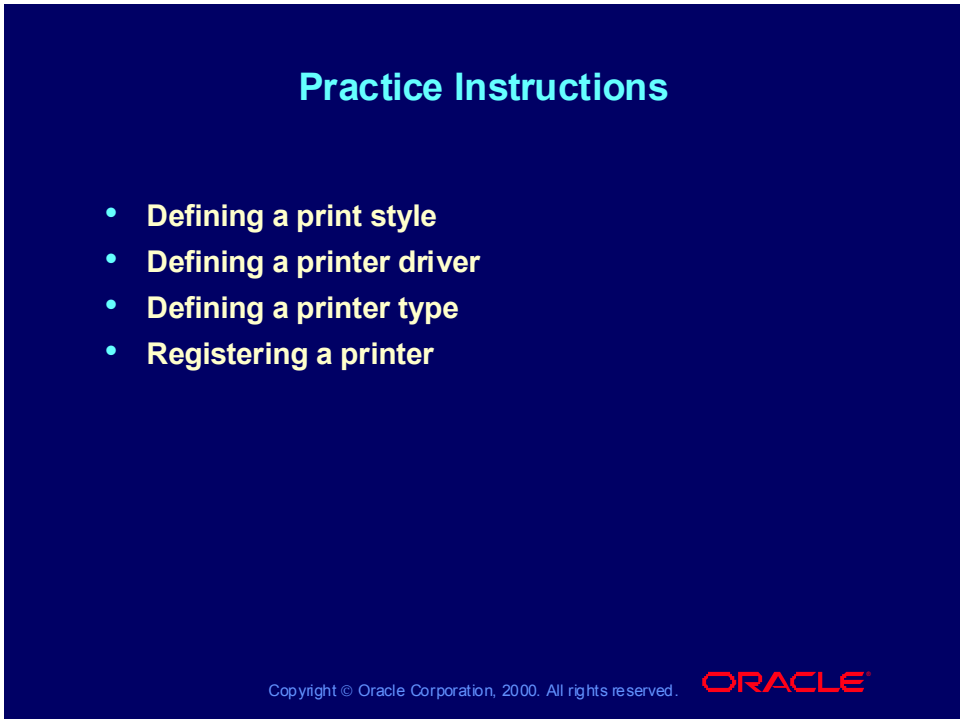
Reset String

- Print two short reports with different printing orientations to verify that the printer is resetting itself properly.
- For example, print one report that is landscape and another that is portrait. Edit printer reset instructions in the Reset string.

Arguments

- Print a short report to verify that the arguments to the operating system's print command or custom print program are being interpreted correctly.
- Check that the correct file is being printed at the destination printer and check the number of copies that are printed. Edit arguments in the Arguments field.





Instructions

Use the information in the following charts as you complete the practice.

Defining a Print Style

Your printer style describes the appearance of your printed pages. This includes the orientation as well as the number of columns and rows. Use the information below to define a new print style.

Style Name:	*nnn*S - Printer Style
Sequence Number:	*your student number* + 300
User Style:	*Snnn* - Portrait
SRW Driver:	P-S*nnn*
Description:	*(your description)*
Layout Columns:	80
Rows:	66
Suppress Header:	enabled
Orientation:	Portrait

Defining a Printer Driver

Use the information below to define a driver to be associated with your new print style. This driver specifies the initialization and reset strings as well as other system related information

Driver Name:	*nnn*S - Printer Driver
User Driver:	*Snnn* - Portrait
Description:	*(your description)*
SRW Driver:	P-S*nnn*
Platform:	Windows - NT
Driver Method:	Command
Arguments	lp -c -d$PROFILES$.PRINTER -n$PROFILES$.CONC_COPIES
Initialization:	/e[!p
Reset:	/e[!p

Defining a Printer Type

Your printer type definition specifies the allowable printer styles and drivers for your printer. Use the information below and define all the printer styles and drivers listed

Type:	*nnn*S - HPLJ5
Description:	*(your description)*
Style:	**Driver Name:**
S*nnn* - Printer Style	S*nnn* - Printer Driver
A4	A4PRINTCMDLQ1070
DYNAMIC	PORTRAITCMDLQ1070
LANDSCAPE	LANDSCAPECDM1070
PORTRAIT	PORTRAITCMDLQ1070

Registering Printers

The last step in setting up your printers is to register your new printer with Oracle Applications and associate a printer type with it. Use the information below to register two new printers: one using your new printer type and another that uses an existing printer type.

Printer	Type	Description
S*nnn* - Printer - 1	*nnn*S - Printer Type	uses my new printer type
S*nnn* - Printer - 2	(existing printer type)	uses an existing printer type

Testing Your Definitions

To test your new printer definitions, navigate to the SRS window and select a program for execution. Go to the Options window and query up a list of available printers. Verify that your new printers are listed.

Practice Solutions

Define a Print Style

1. Navigate to (N) Install > Printer > Style.

2. Enter the data from the instructions in the appropriate fields in the window.
3. Click Save to save your work.

Define a Printer Driver

4. Navigate to (N) Install > Printer > Driver.
5. Enter the data from the instructions in the appropriate fields in the window.
6. Click Save to save your work.

Define a Printer Type

7. Navigate to (N) Install > Printer > Types.
8. Enter the data from the instructions in the appropriate fields in the window.
9. Click Save to save your work.

Register Your Printer.

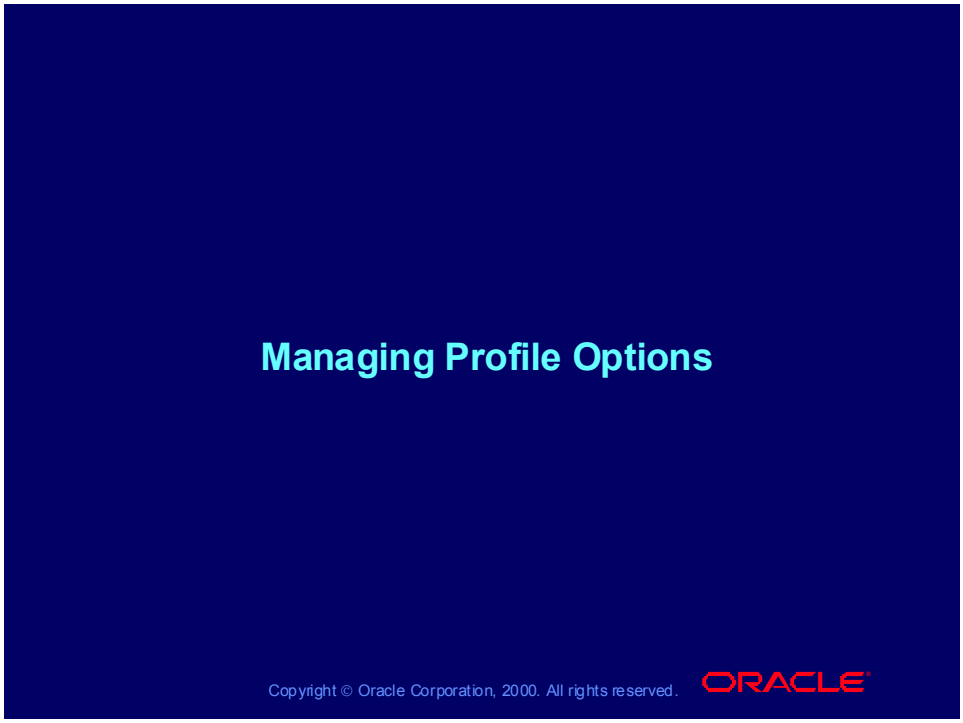
10. Navigate to (N) Install > Printer > Register.
11. Enter the data from the instructions in the appropriate fields in the window.
12. Click Save to save your work.

Test That Your New Printer Definitions Are Listed

13. Navigate to (N) Requests > Run.
14. Click OK to submit a single request.
15. Click Copy a Prior Request to show your last request.
16. Click Completion Options and then tab to the printer field and verify that your new printer shows up in the list of values for that field.

Managing Profile Options

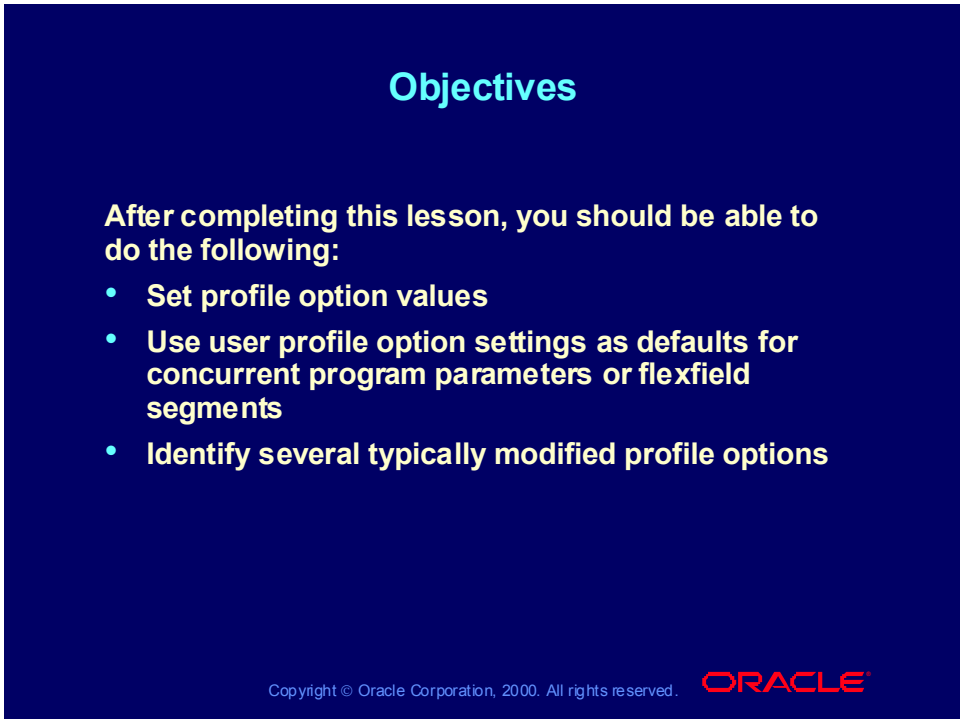
Chapter 6



Notations:

(N) = Navigator
(T) = Tab
(I) = Icon
(H) = Hyperlink
(B) = Button
(Help) = Oracle Applications Help System

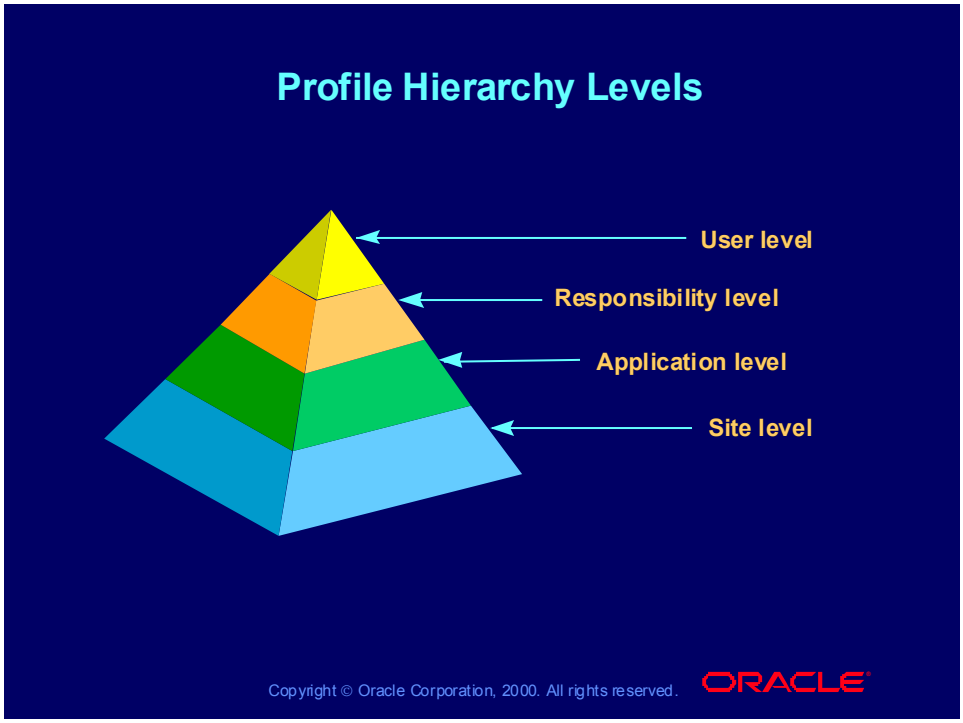
Objectives



Lesson Aim

As a system administrator, you control various options in Oracle Applications that determine how your applications look and feel. These options can also control how each application operates. This lesson shows you how to specify these values.

Profile Hierarchy Levels



Setting Profile Hierarchy Levels

Setting a user profile affects application users across one of four different levels.

Site Level Site-level settings apply to all users at an installation site. To display the name of your installation site, select About Oracle Applications from the Help menu.

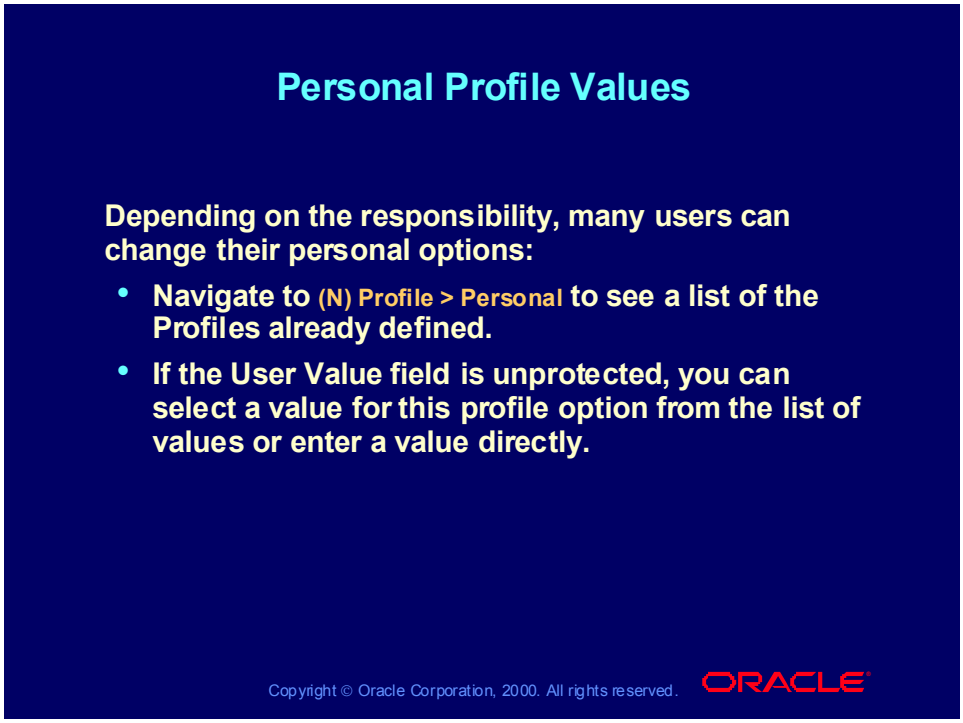
Application Level Application-level settings apply to all users of the specified application. For example, a profile could be set that applies to all Oracle General Ledger users. Profile options that can be set at the application-level override options set at the site level.

Responsibility Level Responsibility-level settings apply to all users currently signed on under the responsibility. For example, a profile could be set that applies to all users of the Oracle General Ledger GL budget supervisor responsibility. Profile options that can be set at the responsibility level override options set at the site and application levels.

User Level User-level settings apply to individual users, identified by their application usernames. For example, a user profile could be set that applies only to user JDoe. Profile options set at the user level override all other options.

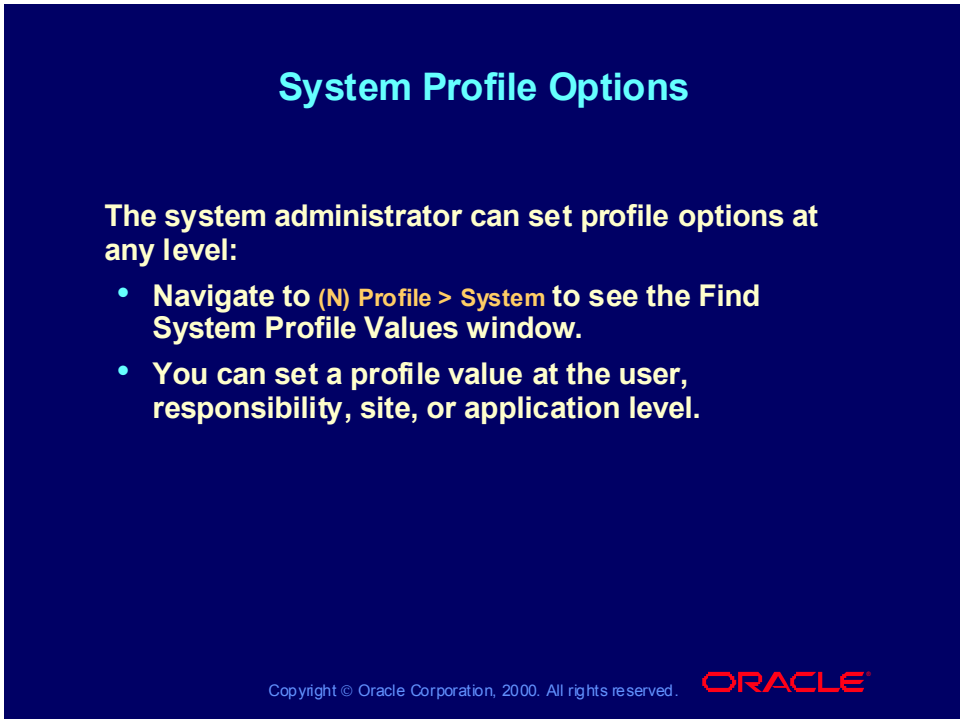
Set of Books You can further control security by assigning a set of books to a responsibility, application, or site.

Personal Profile Values

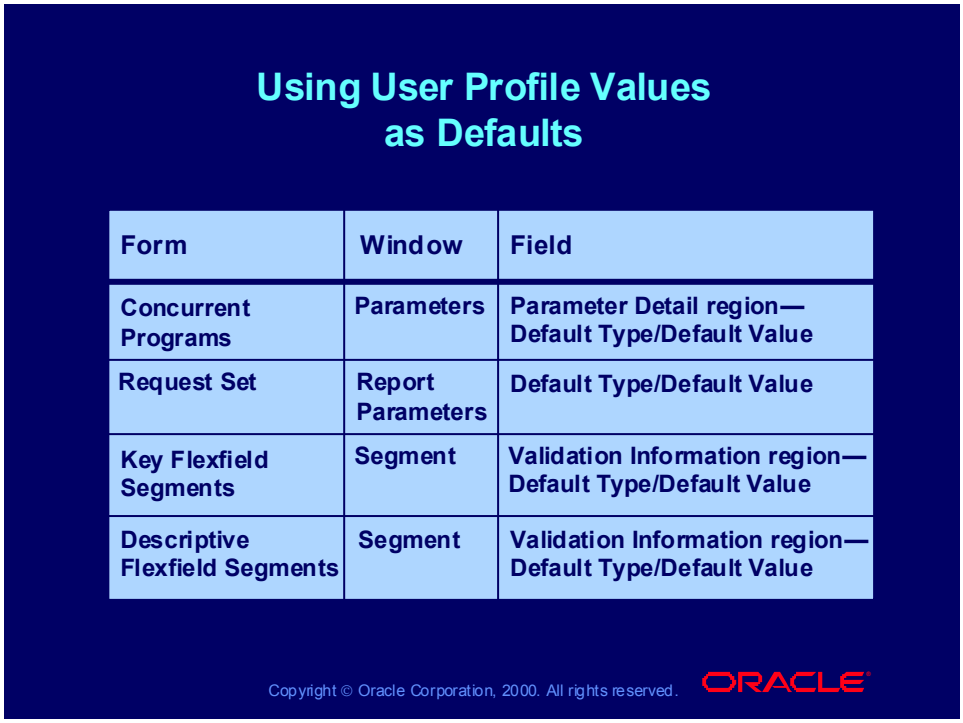


For further information on using the Personal Profile Values window see:

(Help) Oracle Applications User's Guide > Profile Options > Setting Your Personal User Profile



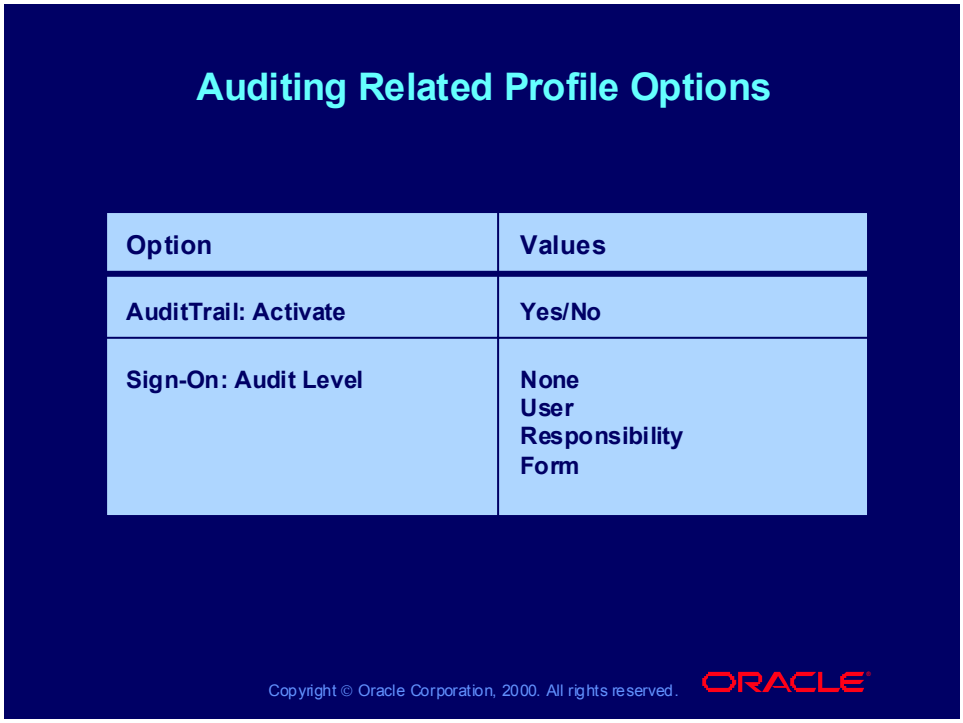
Using User Profile Values as Defaults



Default User Profile Values

After profile values have been defined, they can be referenced elsewhere in Oracle Applications. The figure shows the locations where profile values can be used to supply default processing values.

- Enter the setting of a profile option as a default value by selecting Profile as the default type, and then enter the internal name (not end-user name) of the profile option as the value in the Default Value field.
- Look up the internal name of the profile option in the User Profiles appendix of the *Oracle Applications System Administrator's Guide*.



How to Use Profile Options Related to Auditing

These two profile options are used to enable auditing within Oracle Applications.

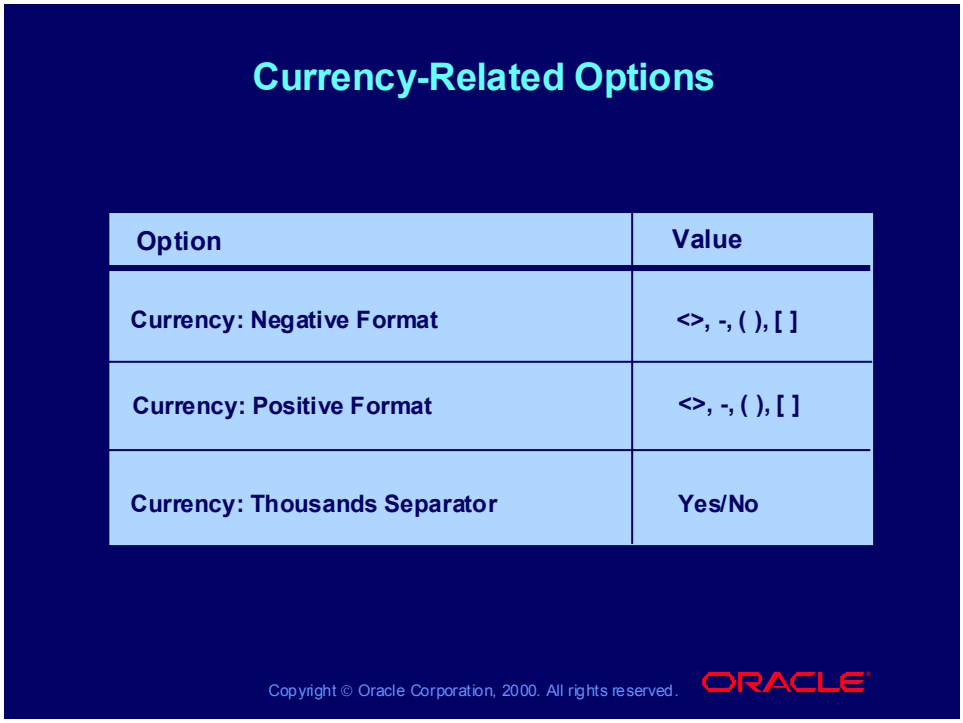
AuditTrail: Activate

This option enables auditing of changes to database tables. AuditTrail tracks which rows in a database table or tables were updated, at what time, and which user was logged in using the form or forms.

Sign-On: Audit Level

This option identifies the level of detail at which user activity will be audited.

- NONE: The default, resulting in no auditing being performed
- USER level: Sign-on, sign-off, elapsed time for each user
- RESPONSIBILITY: Tracks user-level information as well as the responsibility that the user selects
- FORMS: Tracks responsibility-level information as well as the forms the user connects to during the course of a session



How to Use Currency-Related Options

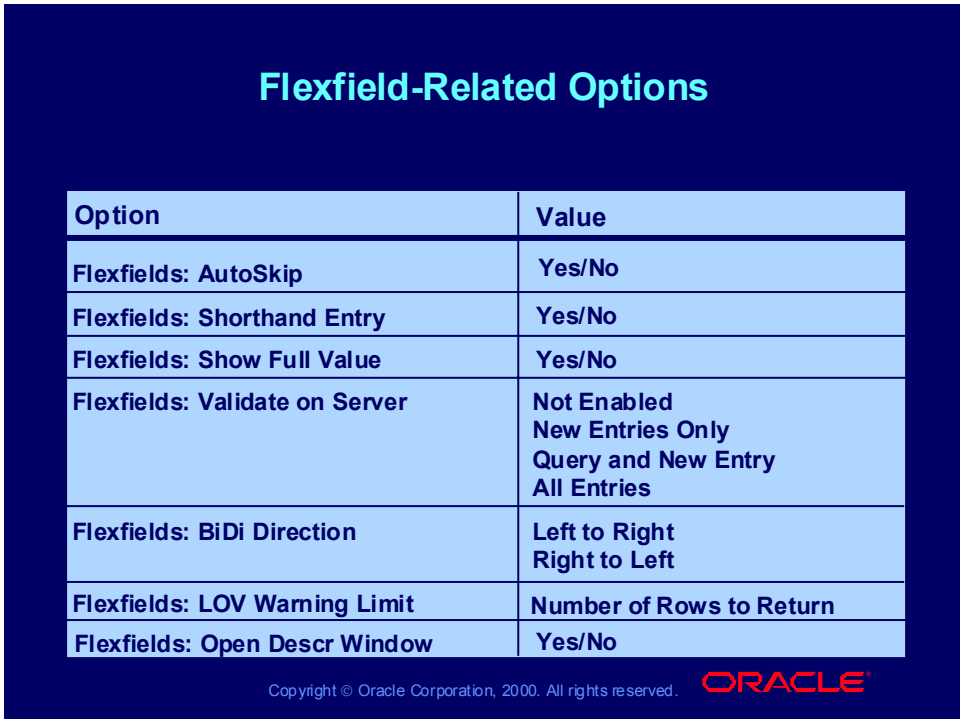
The options shown in the figure control the editing of monetary fields.

Currency: Negative Format

This option enables the user to select the indicators for a negative amount.

Currency: Thousands Separator

This option enables the user to request that a comma be inserted appropriately within a number of a thousand or more.



How to Use Flexfield-Related Options

The options shown on the figure control the behavior of flexfield processing.

AutoSkip

As soon as you enter a valid value into a flexfield segment, AutoSkip automatically positions your cursor in the next segment.

Shorthand Entry

This option controls the behavior of shorthand entry of flexfields if shorthand entry has been defined.

Show Full Value

If both shorthand entry and a complete alias have been defined for a flexfield, and this option is set to no, the complete flexfield window does not open when the alias is entered. If this option is set to Yes, the window always opens.

Validate on Server

Set this option to Yes to enable server-side validation of key flexfields. This improves performance when using key flexfields over a wide-area network.

BiDi Direction

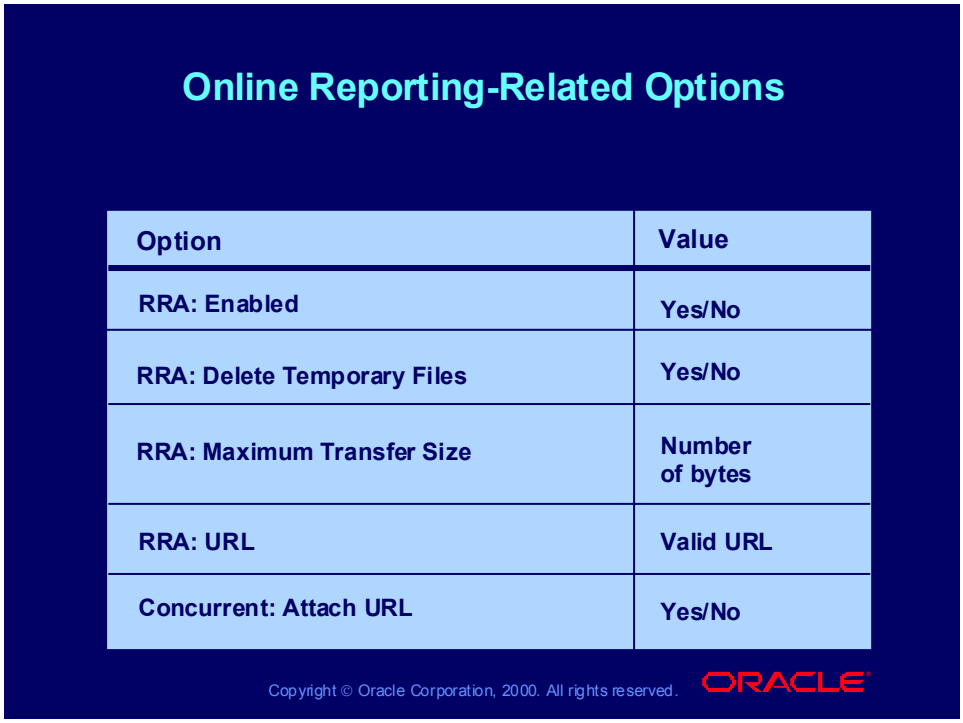
This option controls the appearance of the flexfields window in Applications running in Semitic languages.

LOV Warning Limit

Sometimes an LOV can take a very long time to run if there is a very significant amount of data in it. Set this option to the number of rows to be returned before you are asked to continue retrieving the entire list.

Open Descr Window

This option allows you to control whether a descriptive flexfield window automatically opens when you navigate to a customized descriptive flexfield.



How to Control Output Processing at the System Level

The options shown in the figure control output processing at the system level.

RRA: Enabled

Set this user profile to Yes to use the Report Review Agent to access files on concurrent processing nodes.

RRA: Delete Temporary Files

When users use a custom editor to view a concurrent output or log file, the Report Review Agent makes a temporary copy of the file on the client. Setting this option to Yes automatically deletes these files when the user exits Oracle Applications.

RRA: Maximum Transfer Size

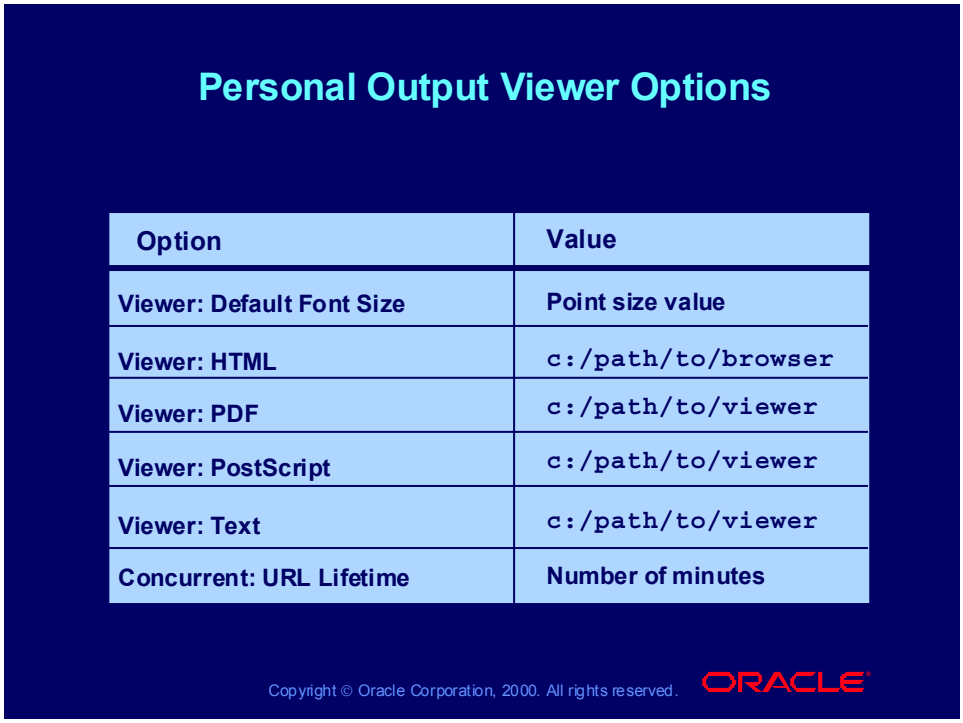
Specify, in bytes, the maximum allowable size of files transferred by the Report Review Agent. If you enter no value, there is no size limit.

RRA: URL

Specify a URL that points to the CGI script on your WebServer to use the Report Review Agent to access files on concurrent processing nodes.

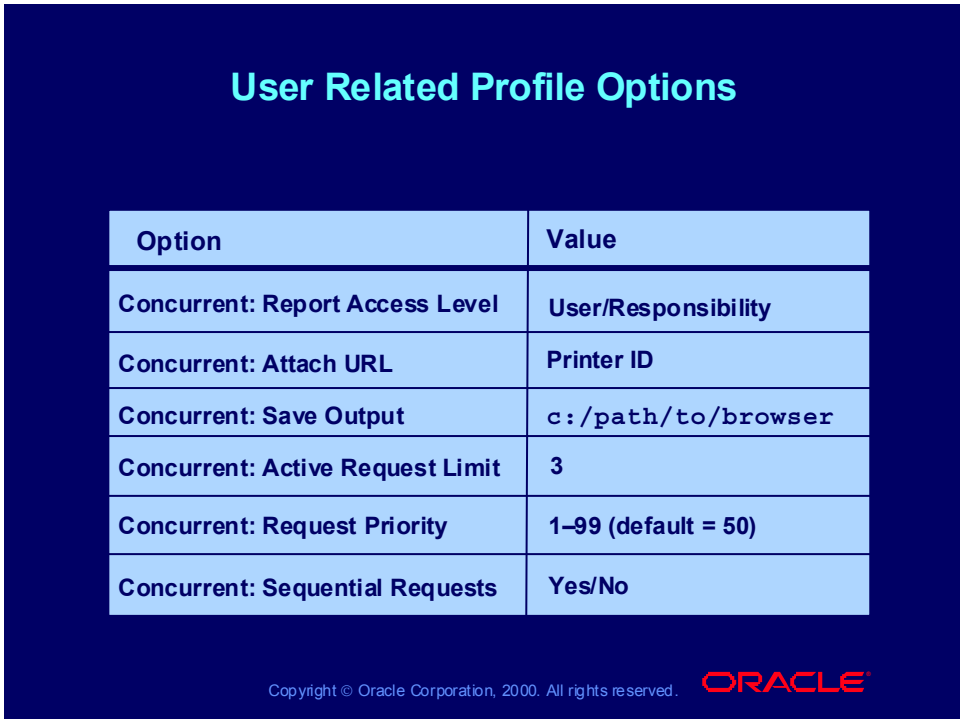
Concurrent: Attach URL

When a user submits a request and specifies people to be notified in the Completion Options region of the Requests window, everyone is sent a notification when the request is finished. When this option is set to Yes, the recipients also receive a URL that they can access to see the request results.



How the User Can Control Request Output

A user can set several options to control request output. You can specify different tools to view different output types, as well as different font sizes. If a user asks to send request completion notifications to other people, a URL pointing to request results can be sent.



How to Use User-Related Profile Options

Concurrent: Report Access Level

This option determines the level of output and log files that are available to a user for online viewing.

Concurrent: Attach URL

Setting this option to "Yes" causes a URL to be attached to request completion notifications. When a user submits a request, and specifies people to be notified in the defining completion options region, a URL is appended to the notification that enables them to view the request on-line.

Concurrent: Save Output

You can save your request outputs in a file if one is generated. This allows you to reprint a request.

Concurrent: Active Request Limit

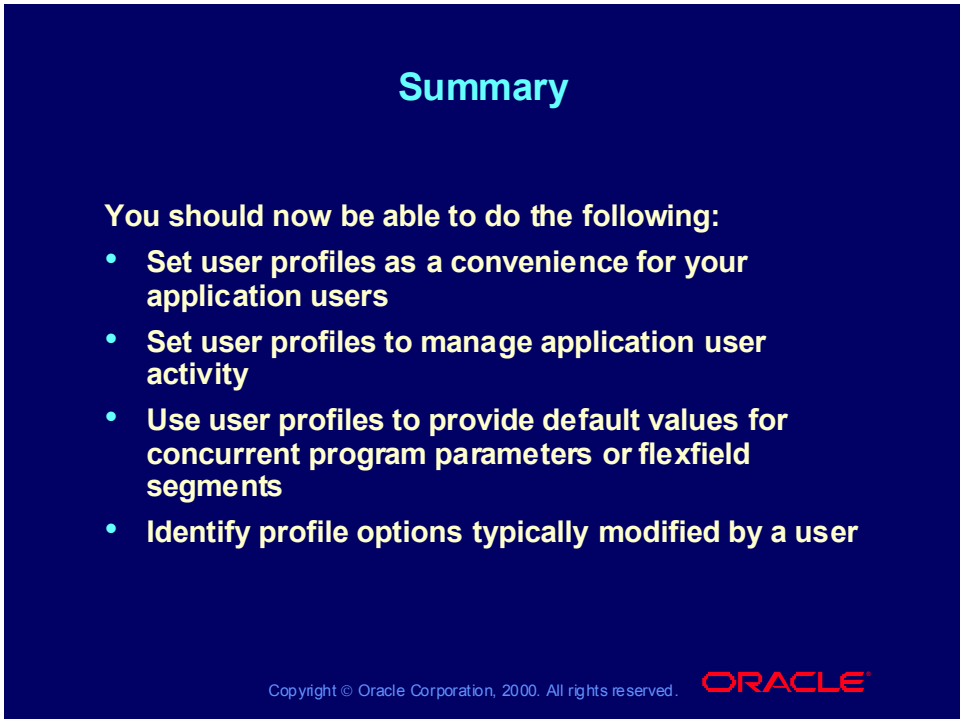
You can limit the number of requests that can be run simultaneously by each user, or for every user at a site.

Concurrent: Request Priority

This displays the default priority number for your concurrent requests. Priorities range from 1 (highest) to 99 (lowest). The default is 50.

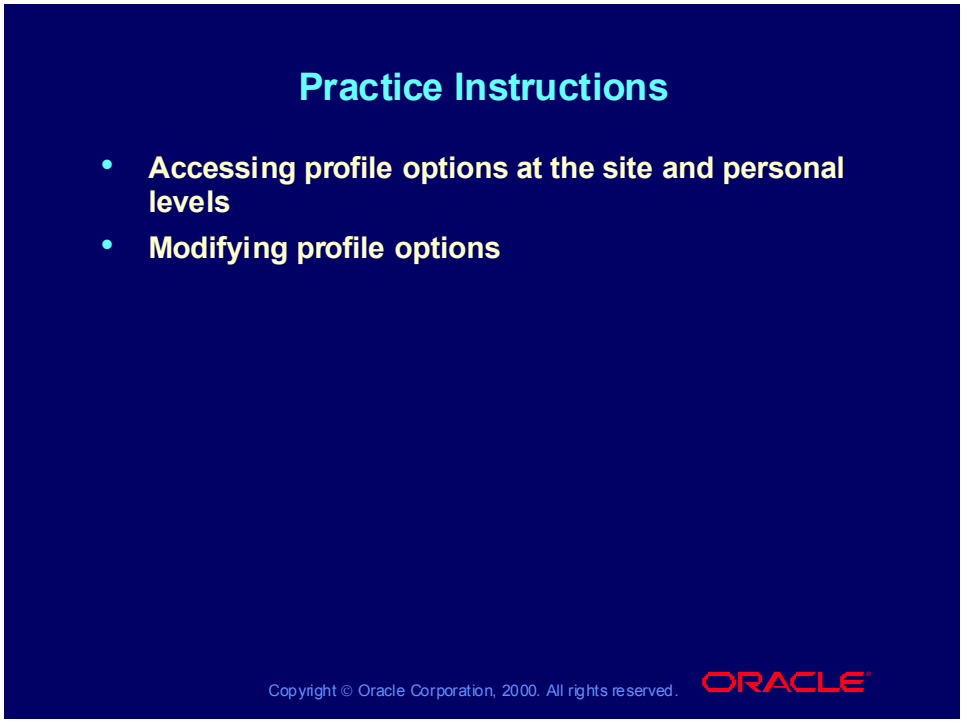
Concurrent: Sequential Requests

Setting this option to Yes forces requests to run sequentially in the order in which they were submitted.



Lesson Summary

An important function of the system administrator is to control the default behavior and appearance of Oracle Applications. This is done by specifying profile values. In this lesson you saw how to display and update profile values. You also learned how to reference previously defined profile values elsewhere in Oracle Applications.



Instructions

In this practice you will deal with profile options at the personal level and higher. In most cases, you will be only inquiring on existing values, although you can change the profile option values at the personal level.

Using Profile Options at the Personal Level

1. Query up the profile option Concurrent: Request Priority. Note its value here: _____ Try to update the value.
2. Query up the value for Sign-On:Notification option. Change it to Yes. Sign off and back on, deliberately mistyping your password at least once. When you finally enter your password correctly you should see a warning message.
3. Query up the option Viewer: Default Font Size. If there is no value specified, set it to 10.
4. Query up the option Printer. Use the List of Values to change or add a value.
5. Query up the option Concurrent: Hold Requests. Change the value to Yes.
6. Navigate to the SRS screen and submit the Active Users program. Open the Completion Options window and check what default printer value appears.
7. Submit your program. Note the status and then cancel it.

Using Profile Options at Higher Levels

There were several profile options mentioned during this lesson. Answer the following questions by checking the existing values.

1. Which of the following monetary displays matches the current setting of Currency: Negative Format?

   123.45- <123.45> (123.45) [123.45]
2. Is shorthand entry of flexfields enabled?
3. What is the maximum size specified, if any, for transferring output files?

Practice Solutions

Using Profile Options as the Personal Level

1. Navigate to (N) Profile > Personal.
2. Click Find to bring up a list of all profile options.
3. Scroll through the list to find Concurrent: Request Priority. Note that this option cannot be changed at this level.
4. Select (M) View > Find to open the Find Personal Profile Values window.
5. Type in your query to find the Sign-On:Notification option and click Find.
6. Continue to use the Find Personal Profile Values window to answer the questions 1-5 listed in the instructions.
7. To submit a program to test these changed options, navigate to the Requests window.
8. Navigate to (N) Requests > Run.
9. At the Submit Request window, choose the Active Users program from the list of values.
10. Click Options... in the Upon Completion region of the window and note the default printer value.
11. Submit your request.
12. Navigate to (N) Requests > View to view your request.
13. The status of your request should be On Hold. Select your request and click Cancel Request.

Using Profile Options at Higher Levels

1. Navigate to (N) Profile > System.
2. Use the Find System Profile Values window to find the option Currency:Negative Format.
3. Select (M) View > Find to redisplay the Find System Profile Values window to find the option Flexfields:Shorthand Entry. Note its value.
4. Repeat Step 3 to find the option RRA:Maxmimum Transfer Size and note its value.

Auditing System Resources

Chapter 7

Notations:

(N) = Navigator
(T) = Tab
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(H) = Hyperlink
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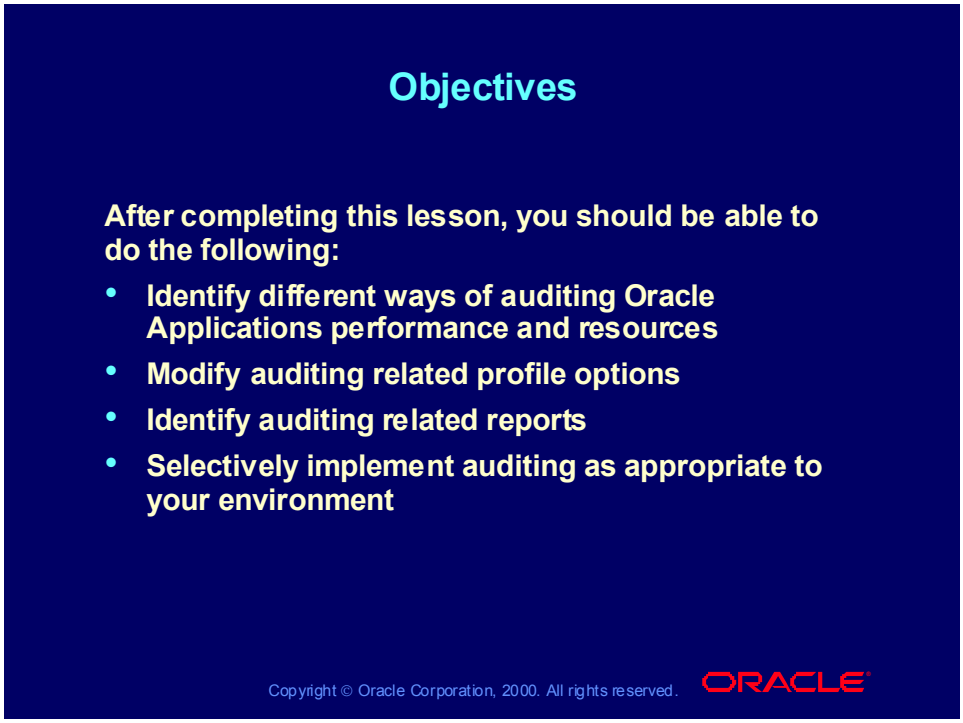
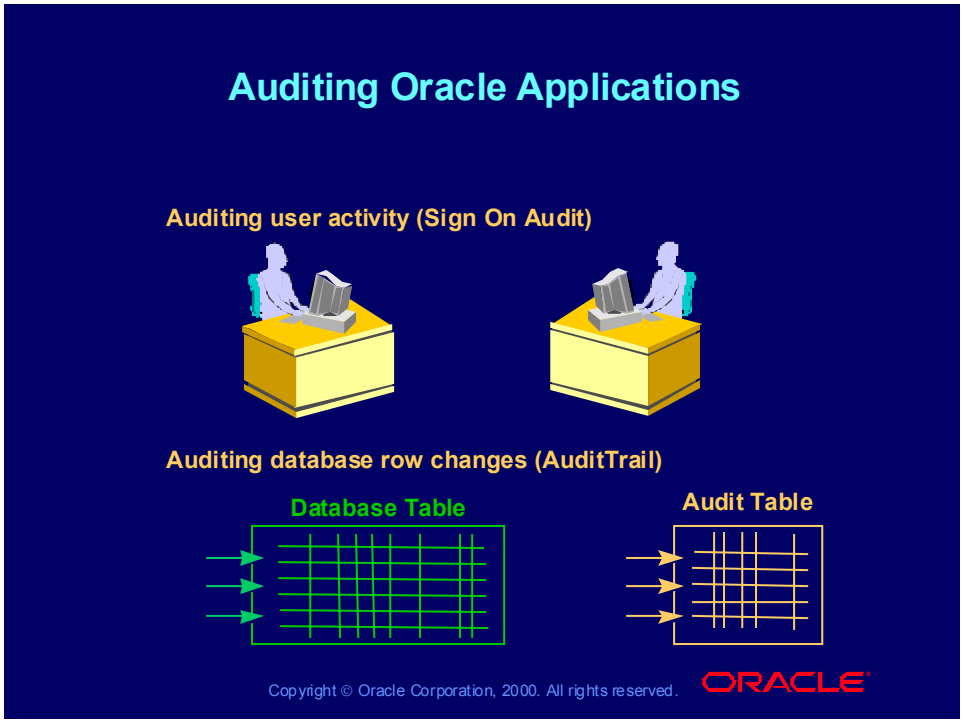


Lesson Aim

As system administrator you may audit application users and the changes that they make to application data. You will learn how both of these options are set and why you use them.



Changes to Audit in Oracle Applications

Within Oracle Applications, you can audit user activity and database row changes.

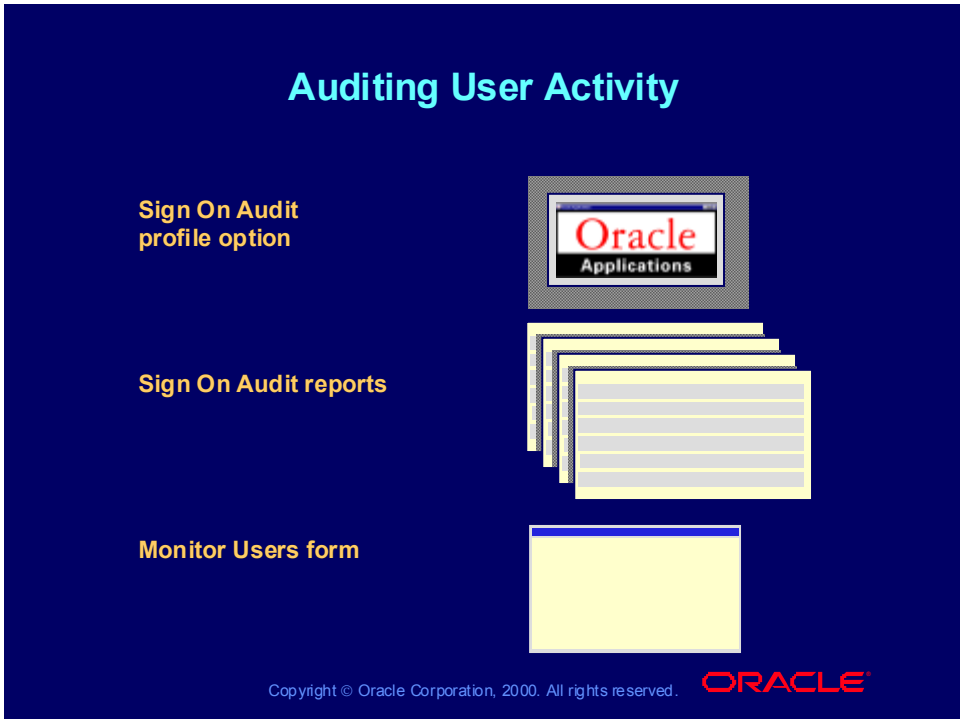
Sign-On Audit Feature

The Sign-On Audit feature enables you to monitor user activity. You can audit at the user, responsibility, or form level. When you enable Sign-On Audit, you specify the desired level of auditing. Sign-On Audit provides two methods for viewing audit data:

- The Monitor Users form provides online access to audit data.
- Various Sign-On Audit reports are available.

AuditTrail Feature

With the AuditTrail feature you can keep a history of changes to your important data: what changed, who changed it, and when it changed. With AuditTrail, you can easily determine how any data row or element obtained its current value. The audit data is stored in database tables that can be queried by using any standard Oracle SQL tool.



Sign-On Audit Feature

You can audit and monitor user activity by enabling the Oracle Applications Sign-On Audit feature. This enables you to track the activity of users signed on to Oracle Applications. Implement the Sign-On Audit feature by updating the Sign-On Audit Level system profile.

With Sign-On Audit you can choose whom to audit and what type of user information to track. You can selectively determine what audit information you need to match the needs of your organization.

Sign-On Audit Reports

Sign-On Audit reports give you historical, detailed information on what your users do in your application. You control the data selected for the reports as well as how the data is presented.

Monitor Users Window

The Monitor Users window gives you online, real-time information about who is using Oracle Applications and for what purpose.

You can see which users are signed on, which responsibilities, forms (windows), and terminals they are using, as well as other information.

Sign On Audit Profile Option

Sign-On Audit Levels

The Sign-On Audit profile option enables you to select a level at which to audit users who sign on to Oracle Applications. The four possible audit levels increase in functionality and detail of auditing.

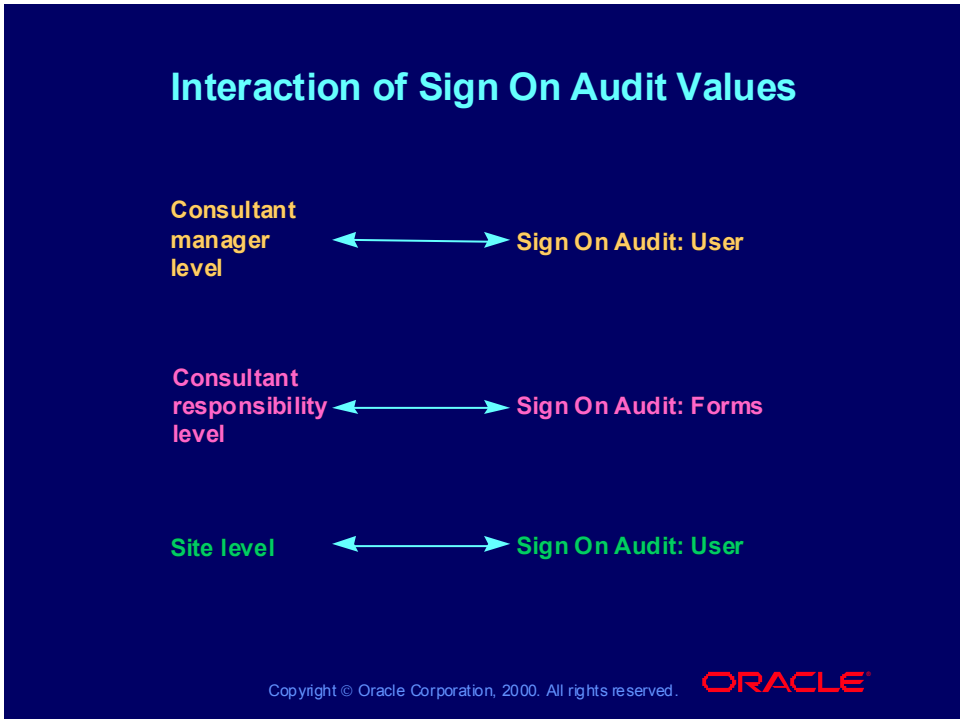
None This value is the default and disables the Sign-On Audit feature.

User Auditing at the user level tracks who signs on to your system, the times that users log on and off, and the terminals they use.

Responsibility Auditing at the responsibility level tracks all the information tracked at the user level, including the responsibility that the user is using and how much time the user used the responsibility.

Form Auditing at the form level tracks all the information tracked at the user and responsibility levels as well as which forms the user chooses and how long he or she uses those forms.

Interaction of Sign On Audit Values



Specifying the Sign-On Audit Level

You can specify a Sign-On Audit value at multiple profile levels. A value in effect at a higher level overrides a value at a lower level. For example, assume a scenario where your business regularly has independent consultants on-site whose activity you need to document for billing purposes. In such a situation, you could use the following auditing setup:

- At the site level specify Sign-on Audit: User to implement the minimum auditing level for all users of Oracle Applications.
- Set up a custom responsibility to be used by your consultants. Set Sign-On Audit for this responsibility to the responsibility or even the forms level.
- At the user profile level for the manager overseeing the consultants, set Sign-on Audit back to the user level.

Sign On Audit Reports

Reports

The Sign-On Audit feature can generate several reports detailing information gathered by Sign-On Audit. These reports are shown in the figure.

- Sign-On Audit Forms
- Sign-On Audit Users
- Sign-On Audit Responsibilities
- Sign-On Audit Concurrent Requests Report
- Sign-On Audit Unsuccessful Logins Report

Sign On Audit Forms Report

Using the Sign-On Audit Forms Report

Use the Sign-On Audit Forms Report to view who is navigating to what form and when. You can use this report to check for bottlenecks in the system. The report contains the following columns:

- Username: The Oracle Applications username of the user who accessed the form
- Login Name: The operating system login name of the user who accessed the form
- Terminal Name: The operating system ID of the terminal from which the user accessed the form
- Responsibility Name: The name of the responsibility from which the user accessed (The responsibility is displayed only if you audited the user at the responsibility or form Sign-On Audit level.)
- Start Active Time/End Active Time: The dates and times when the user accessed and exited the form (This information is displayed only if you audited at the form level.)
- Form Name: The name of the form that the user accessed (The form name is displayed only if you audited the user at the form level.)

Sign On Audit Concurrent Requests Report

Using the Sign-On Concurrent Requests Report

You can use this report to view information about concurrent requests.

- Login Name: The operating system login name of the user who submitted the concurrent request
- Request ID: The concurrent request ID of the submitted concurrent request
- Concurrent Program Name: The name of the concurrent program that the user submitted
- User Name: The Oracle Applications username of the user who submitted the concurrent request
- Responsibility Name: The name of the responsibility from which the user submitted the concurrent request (The responsibility is displayed only if you audited the user at the responsibility or form level.)
- Form Name: The name of the form from which the user submitted the concurrent request. (This information is displayed only if you audited the user at the form level.)
- Requested Start Time: The date and time when the request started running

Sign On Audit Responsibilities Report

Using the Sign-On Audit Responsibilities Report

You can use this report to view who is selecting what responsibility and when. The report contains the following columns:

- Username: The Oracle Applications username of the user who selected the form
- Login Name: The operating system login name of the user who selected the responsibility
- Terminal Name: The operating system ID of the terminal from which the user selected the responsibility
- Responsibility Name: The name of the responsibility that the user used (The responsibility is displayed only if you audited the user at the responsibility or form level.)
- Start Active Time/End Active Time: The dates and times when the user selected or exited the responsibility. The start active time and end active time are displayed only if you audited the user at the responsibility or form level.

Sign On Audit Unsuccessful Logins Report

Using the Sign-On Audit Unsuccessful Logins Report

You can use this report to view who attempted unsuccessfully to sign on to Oracle Applications as another user. An unsuccessful login occurs when a correct username is entered with an incorrect password. The report contains the following columns:

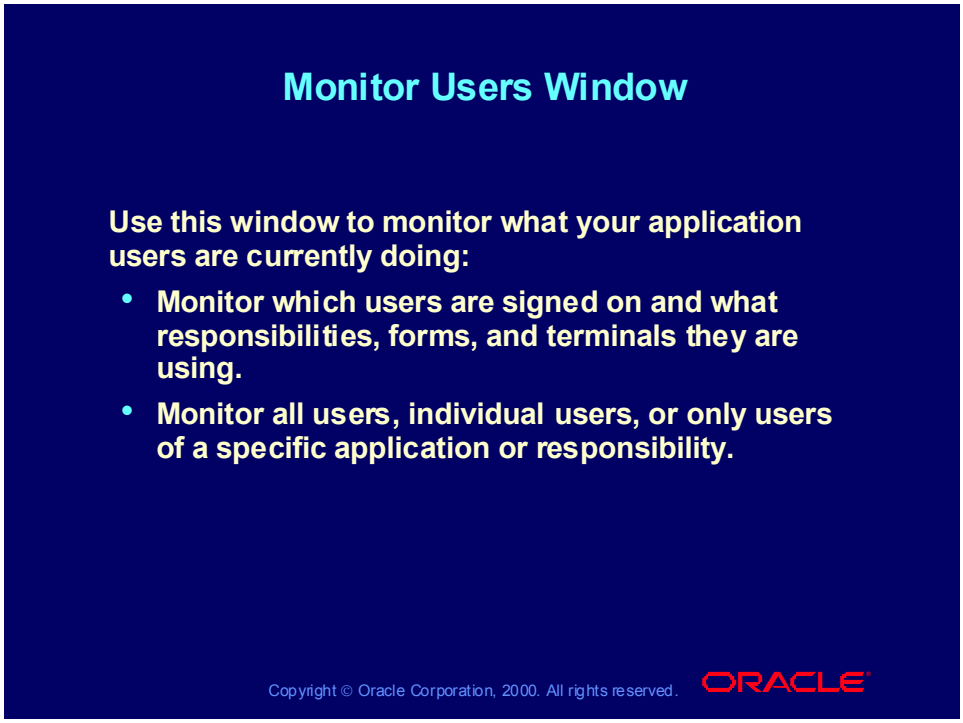
- Username: The Oracle Application username of the user who unsuccessfully signed on
- Login Name: The operating system login name of the user who unsuccessfully tried to sign on
- Terminal: The operating system ID of the terminal from which the user unsuccessfully tried to sign on
- Attempt Time: The date and time when the user unsuccessfully tried to sign on

Sign On Audit Users Report

Using the Sign On Audit Users Report

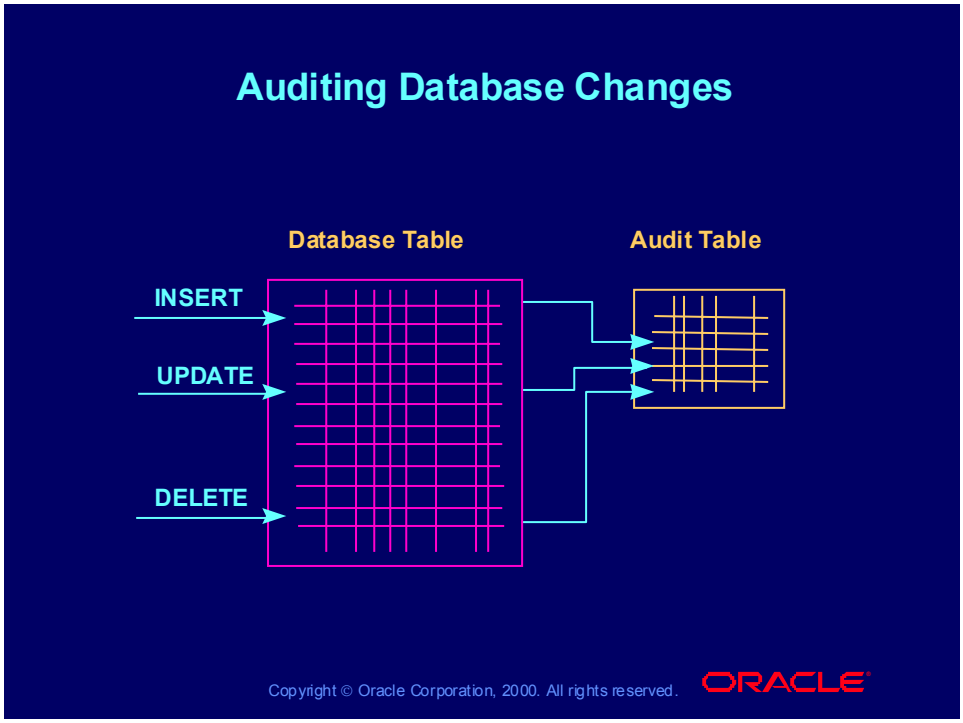
You can use this report to view who signs on and for how long. The report contains the following columns:

- Session Number: The Oracle Applications session number uniquely identifying each application user sign-on
- User Name: The Oracle Applications username of the user who signed on
- Login Name: The operating system login name of the user who signed on
- Terminal Name: The operating system ID of the terminal from which the user signed on
- Start Active Time/End Active Time: The dates and times when the user accessed/ exited Oracle Applications (The start active time and end active time display only if you audited the user at the user Sign-on Audit level.)
- ORACLE Process: The Oracle Process ID used during the user's sign-on
- System Process: The operating system process ID used during the user's sign-on



Monitor Users Window

(N) Security > User > Monitor

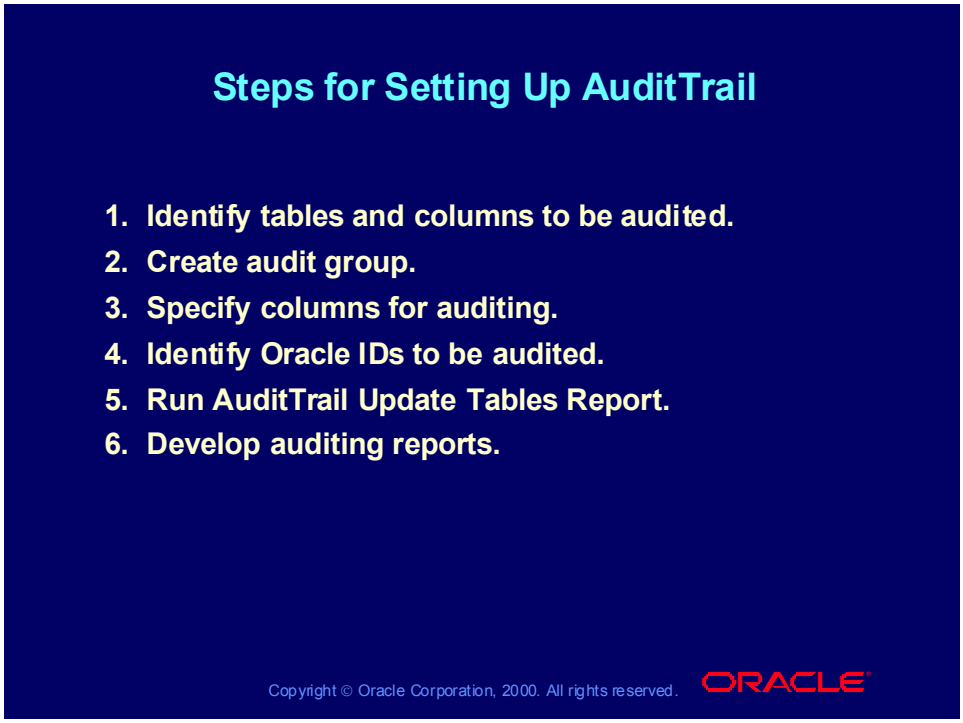


Auditing Important Data

AuditTrail enables you to keep a history of changes to your important data. You can track what changed, who changed it, and when it was changed. Using AuditTrail, you can easily determine how any data row or column obtained its current value.

When you enter or update data through your forms, you change the underlying database tables. AuditTrail tracks which rows in the database were updated. Audit information for each of these changes is stored in audit tables that can then be queried and reported upon.

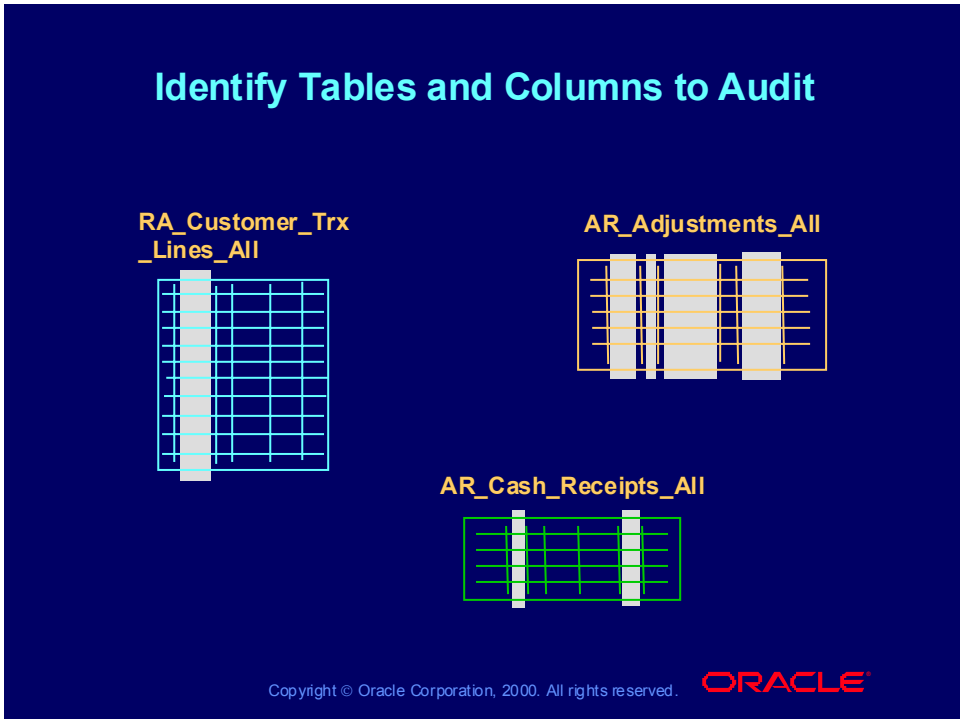
Steps for Setting Up AuditTrail



How to Set Up the AuditTrail

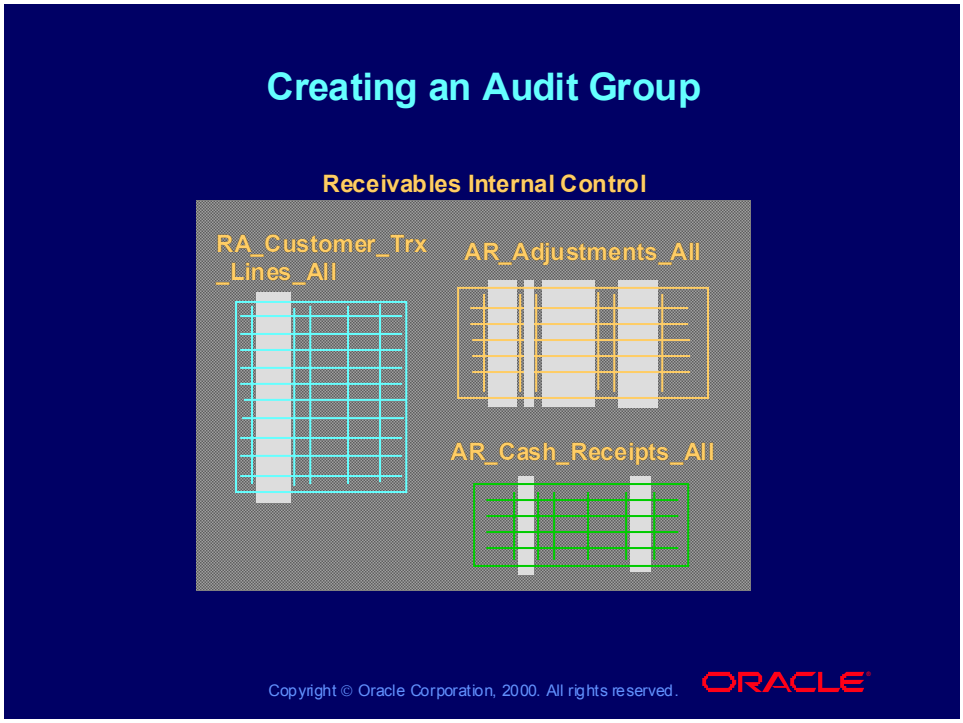
The figure shows the steps involved in implementing AuditTrail. These steps are covered in the subsequent slides.

- Because there is overhead involved in recording audit information, it is important to determine which columns of which tables should be audited; not all changes to all tables need to be tracked.
- After you have identified what to audit, you can begin setting up AuditTrail definitions. You should select tables for auditing that are functionally related. Create an Audit Group that contains these related tables.
- For each of the tables in the audit group, you must define which columns are to be audited. The primary key columns for these tables are automatically included.
- Enable auditing of a particular Oracle ID (schema) by defining audit installations. This enables you to audit across multiple application installations.
- After your definitions are complete, run the AuditTrail Update Tables Report program to create your audit tables and enable auditing for your audit group.
- There are no predefined audit reports. You can use any SQL tool to retrieve information from your audit tables.



Determining Columns and Tables to Audit

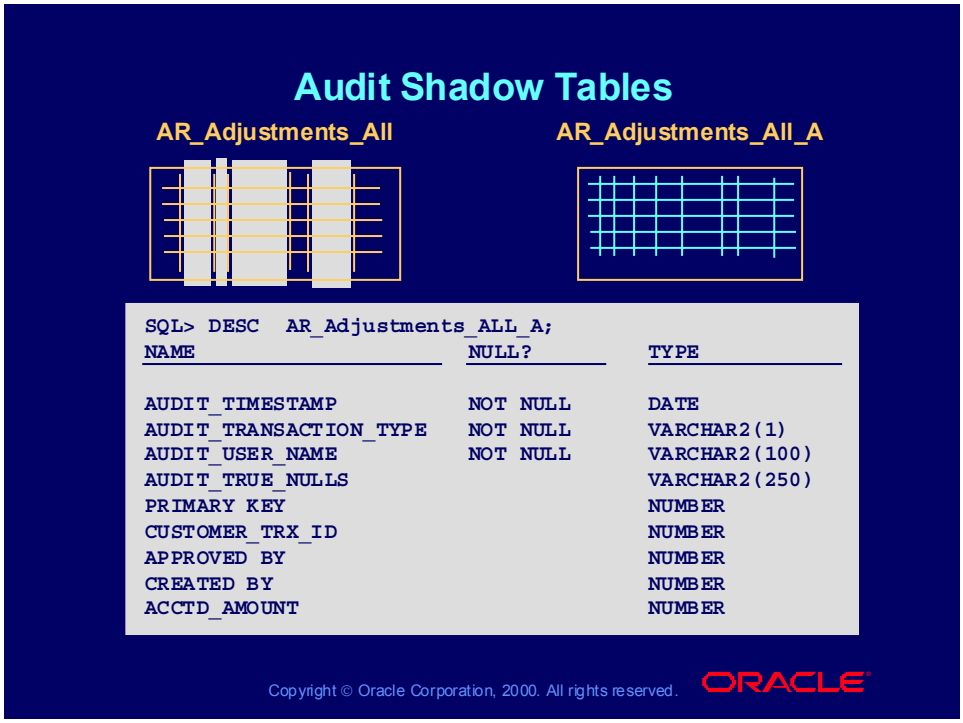
You should select columns from tables that are functionally related. For example, if the accounting department wants to audit changes to any customer transactions involving cash receipts, columns from the Customer Transactions Lines table, the Cash Receipts table, and the Adjustments table would be good candidates for auditing.



Audit Groups

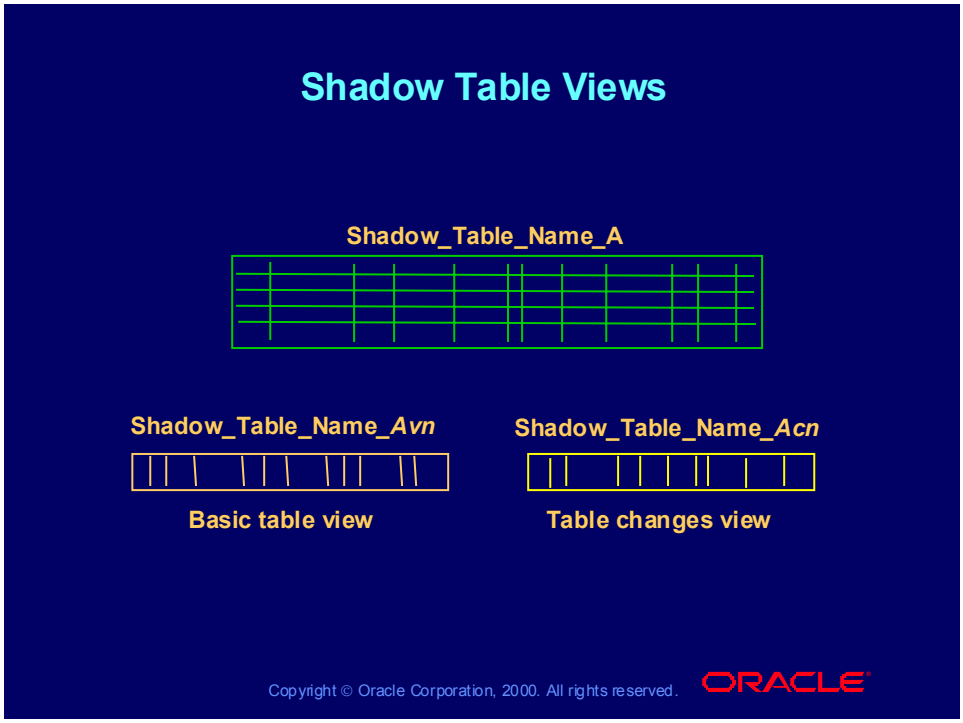
Once you have your tables and columns identified, you should group those tables into an audit group. In the figure, the three tables mentioned have been placed together in a Receivables Internal Control audit group.

Audit Shadow Tables



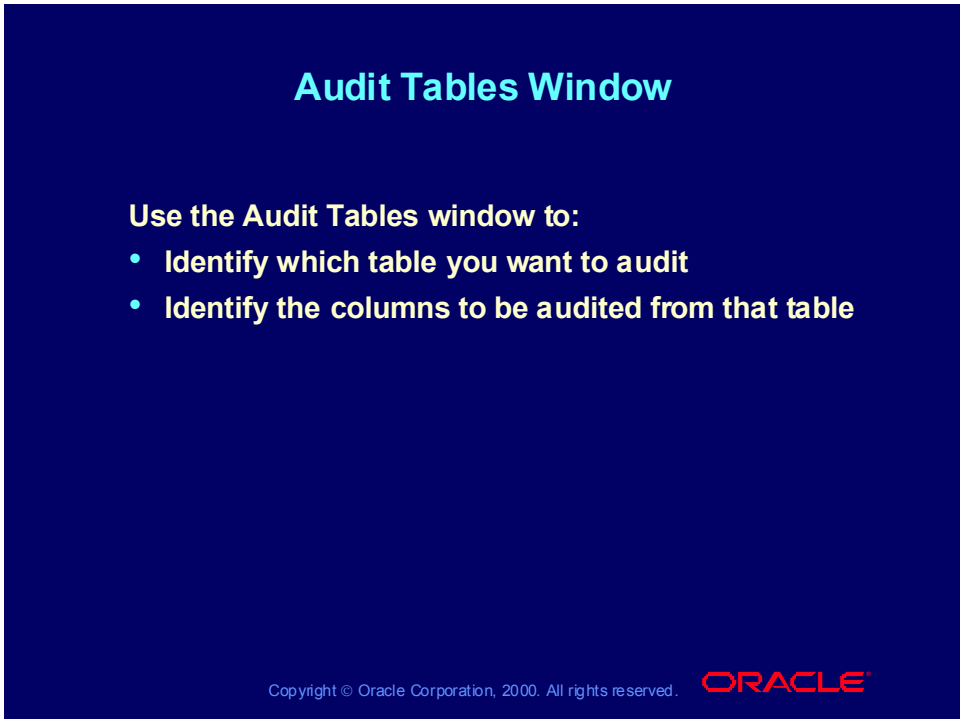
What Audit Shadow Tables Identify

For each table being audited, an audit shadow table is created. This table contains audit processing data such as the transaction type (for instance, INSERT) and time-stamp data, the primary key columns of the audited table, and whatever columns are being audited. In the example above, the CUSTOMER_TRX_ID, APPROVED_BY, CREATED_BY, and ACCT._AMOUNT of the AR_ADJUSTMENTS_ALL table are being audited so the shadow table includes these columns as well as the other columns required by the audit process.



Using Shadow Table Views

Two views are created for a shadow table. These views are called Shadow_Table_Name_*Avn* and Shadow_Table_Name_*Acn* where *n* is a number. If the number of columns being audited is very large, multiple views are created and numbered sequentially. The presentation of the audit table data is different depending on whether you are querying the AV view or the AC view. The AC view enables you to reconstruct the value for a row at a given time while the AV view provides simple access to when a value was changed.

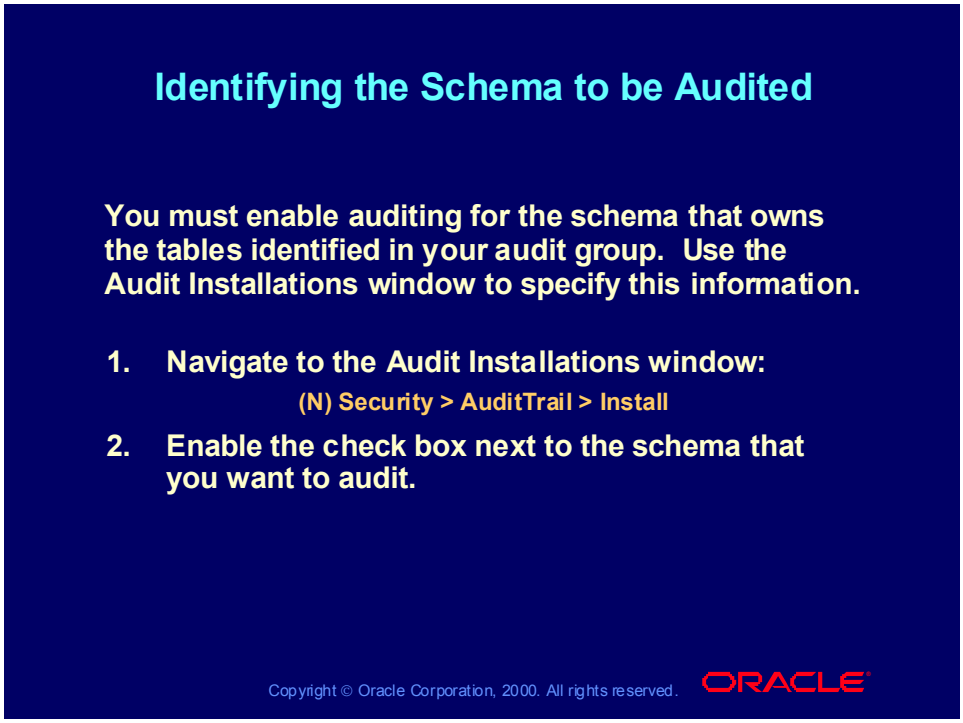


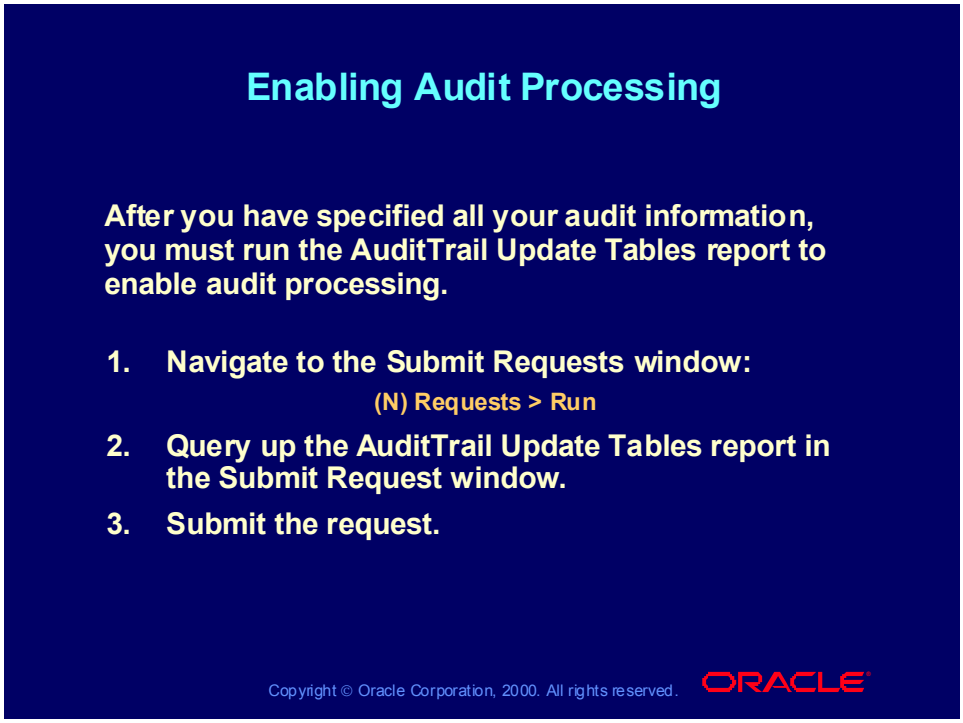
Audit Tables Window

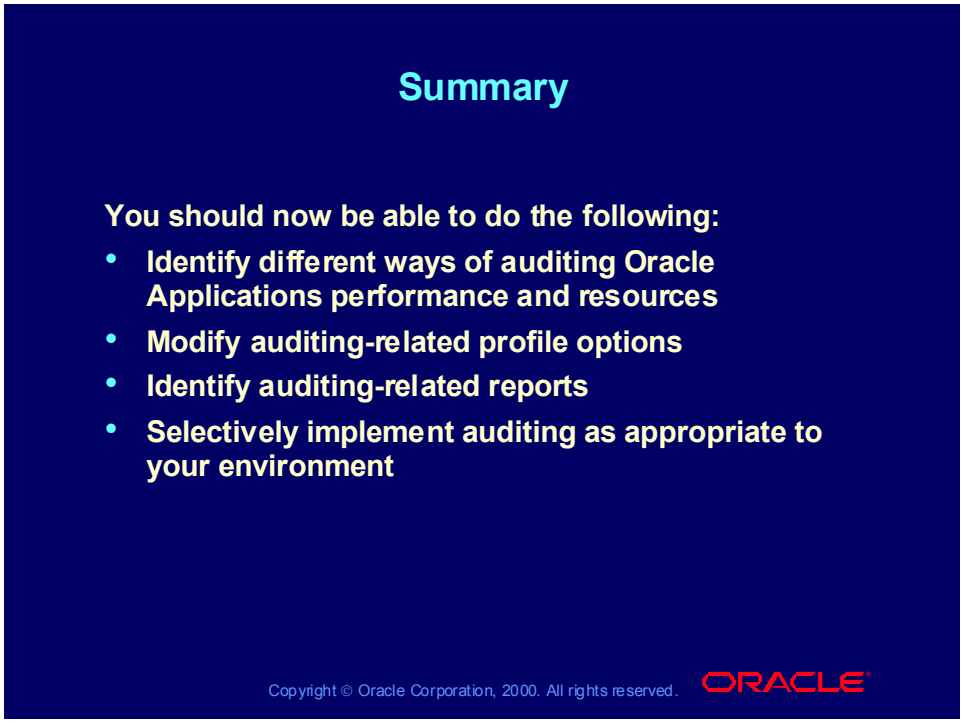
(N) Security > AuditTrail > Tables

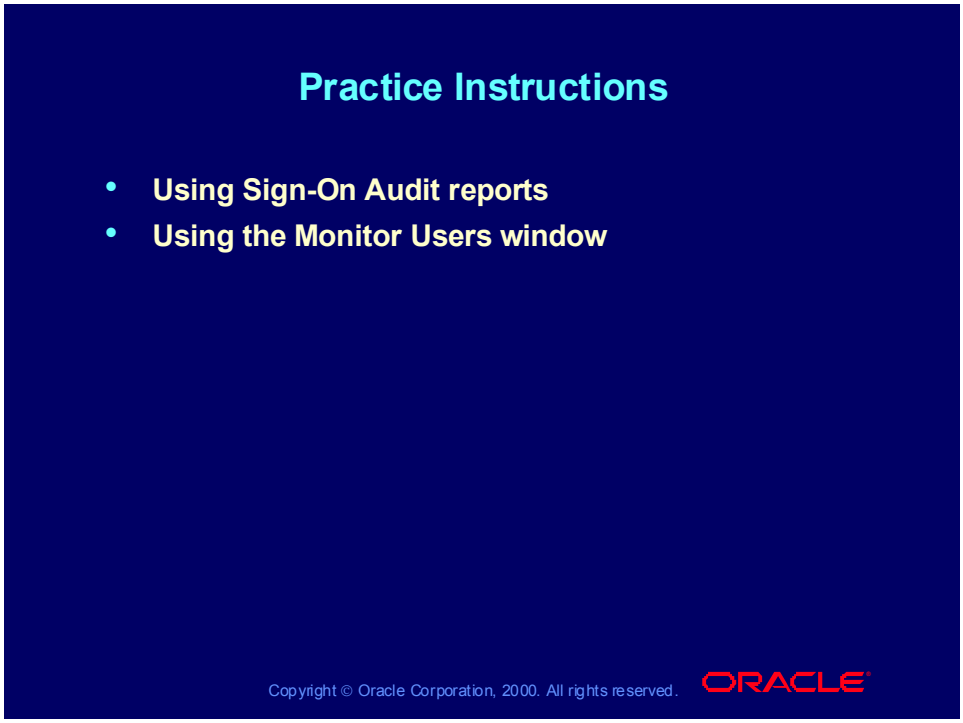
For further descriptions of the Audit Tables window see:

(Help) Applied Technology > Oracle Applications System Administration > User and Data Auditing > Audit Tables Window









Instructions

In this practice you will use a signon audit report to determine who was running a program, who was using a responsibility, and who was using an APPLSYS process. You will monitor a user by using the Monitor Users window.

Using Signon Audit Reports

- Run the appropriate reports to determine the following:
- Who is running the program FNDCPCRQ?
- Who was using the AP Manager's responsibility yesterday from 12:00 until 5:00?
- Who is using the Oracle process APPLSYS?

Using the Monitor Users Window

- Navigate to the Monitor Users window.
- Note any activity.
- Query up the Sign-On Audit Level profile option at the user level for your specific signon. Change it to FORM and save your change.
- Sign off and back on.
- Navigate to the Monitor Users window and note your signon information.

Practice Solutions

Using Sign-On Audit Reports

1. Navigate to (N) Requests > Run.
2. Click OK to accept the default to submit a single request.
3. Click the List of Values icon to get a list of all reports available for you to run.
4. Run the following reports to answer the questions in the instructions.
5. Signon Audit Concurrent Requests
6. Signon Audit Responsibilities
7. Signon Audit Users

Using the Monitor Users Window

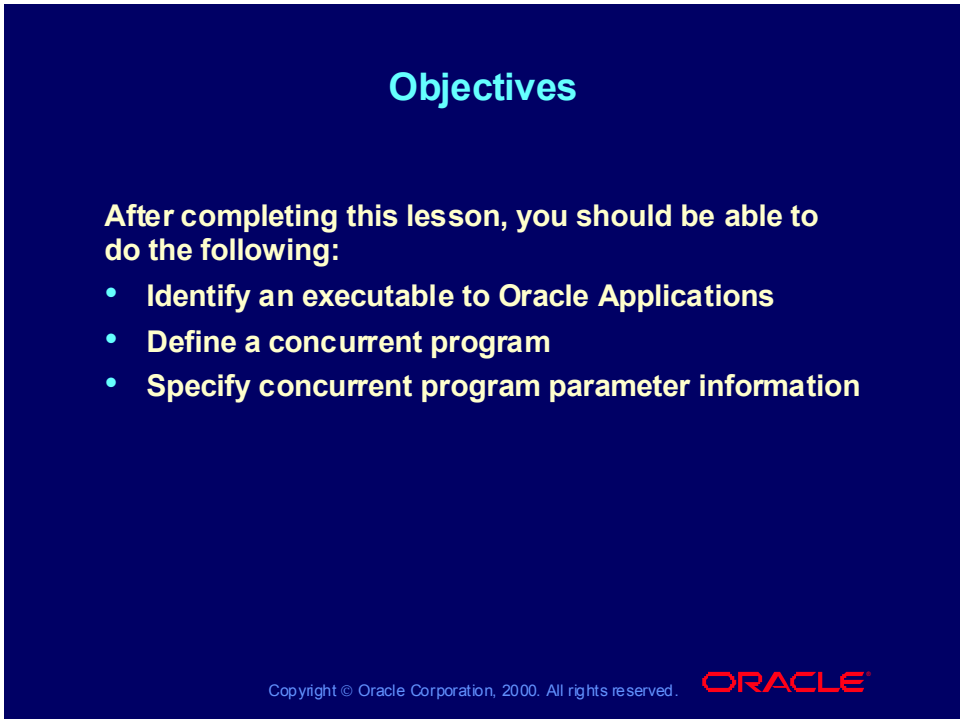
8. Navigate to the Monitor Users window (N) Security > User > Monitor.
9. Query up your User Name and note the activity.
10. Navigate to the Find System Profile Values window (N) Profile > System.
11. Find the Sign-On Audit Level profile option at the user level for your specific signon. Change it to FORM.
12. Click Save to save your work.
13. Sign off and on again. (M) File > Log on as a Different User...
14. Navigate to the Monitor Users window again. (N) Security > User > Monitor.
15. Review the changes of the data in the form.

Incorporating a Custom Program

Chapter 8

Notations:

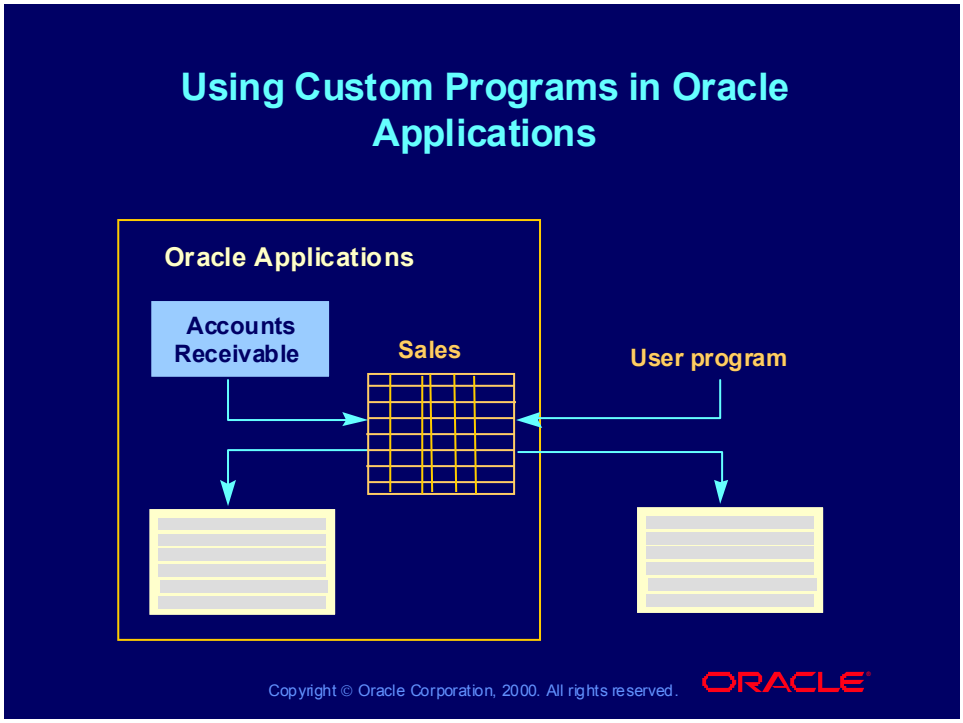
(N) = Navigator
(T) = Tab
(I) = Icon
(H) = Hyperlink
(B) = Button
(Help) = Oracle Applications Help System



Lesson Aim

Oracle Applications uses concurrent programs to process and report on data stored in Oracle Applications tables. These programs are secured, processed, and managed within the Oracle Applications environment, using the operations that you have seen in other lessons. However, you can take your custom applications and programs and integrate them into the Oracle Applications environment as well. In that environment they can be secured and managed the same way as regular Oracle Applications programs.

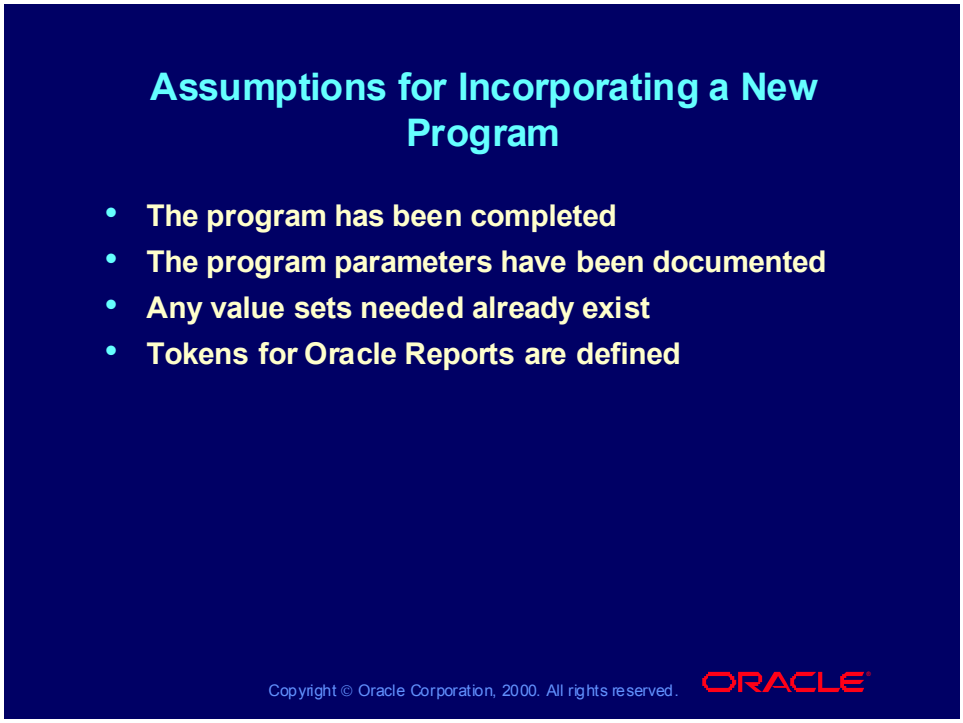
This lesson covers how to integrate user-developed programs into Oracle Applications.

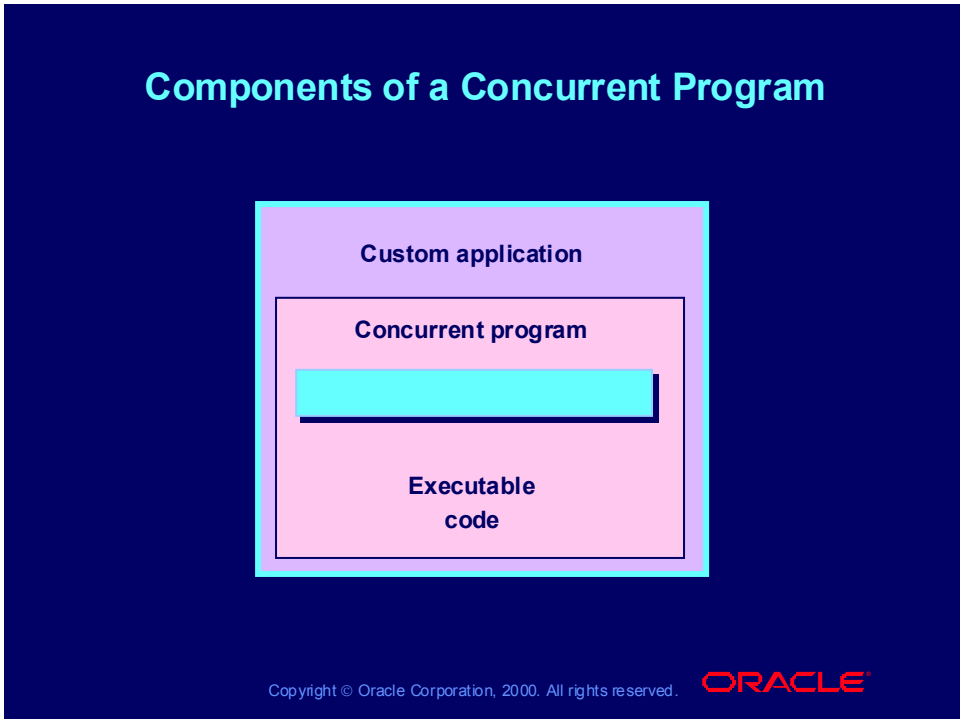


Integrating Custom Programs with Oracle Applications

Although Oracle Applications provides you with a complete range of functionality, you may need to develop and implement your own custom programs to perform specialized processing. You can integrate such custom applications into the Oracle Applications environment so that they are processed like all your other Oracle Applications programs and reports.

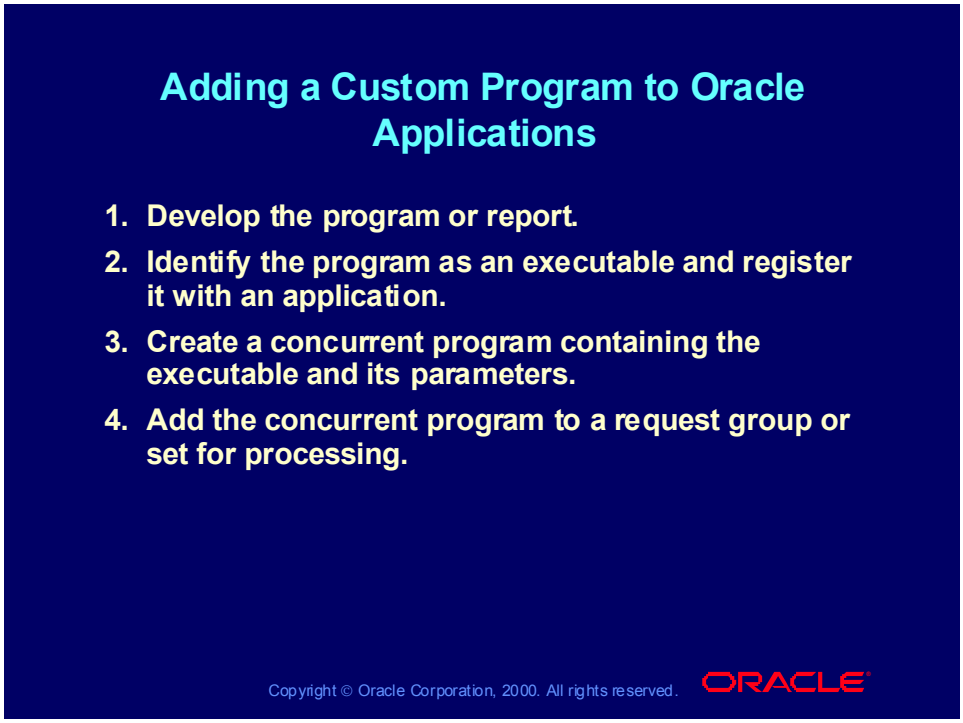
For example, a sales table used by Oracle Receivables can also be accessed by a user program for special reporting needs. Such a user reporting program can be added to the Oracle Applications environment.

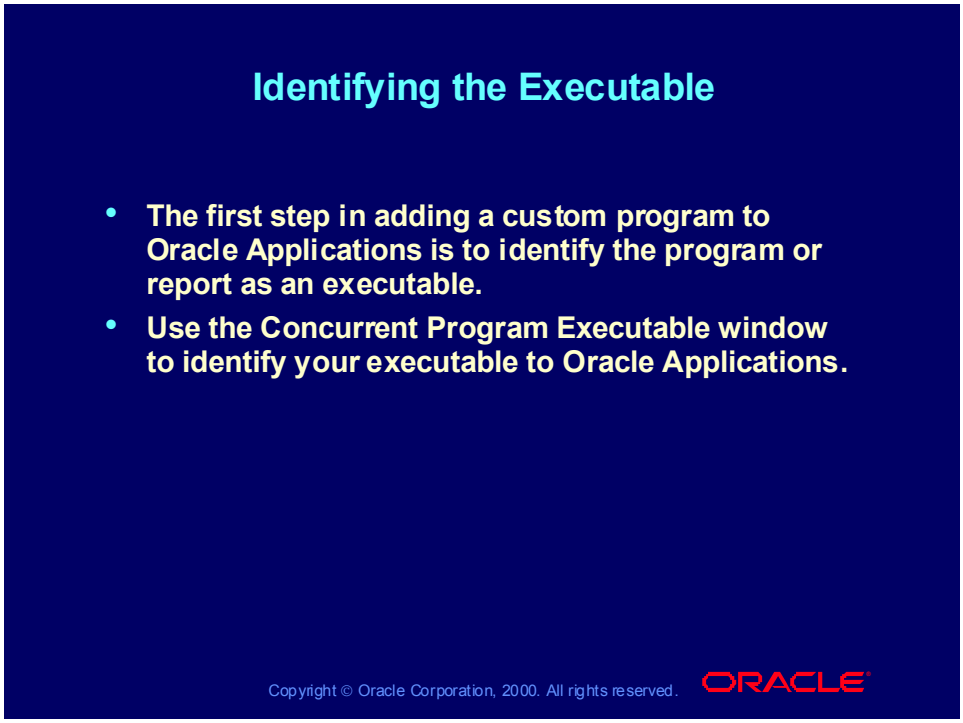




Components of a Concurrent Program

You need to define several components of a concurrent program when adding your custom program to the Oracle Applications environment. A concurrent program consists of an executable module—for example, an Oracle Reports program or a PL/ SQL procedure—and the input parameters required by the program or procedure. A concurrent program must be associated with either an existing Oracle application or a custom application. In most cases, you will associate any custom concurrent programs with a registered custom application. This protects your concurrent programs during an upgrade.



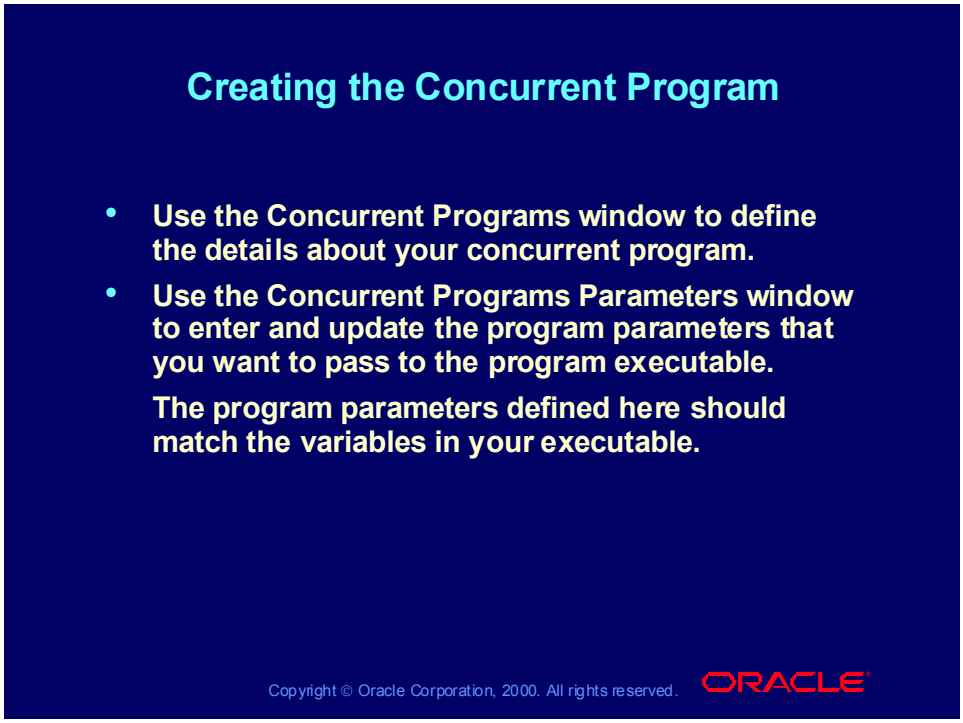


Identifying the Executable

(N) Concurrent > Program > Executable

For a complete description of the fields in this window see:

(Help) Applied Technology > Oracle Applications System Administration > Concurrent Program Executable Window



Concurrent Programs Window

(N) Concurrent > Program > Define

For a complete description of the fields in this form see

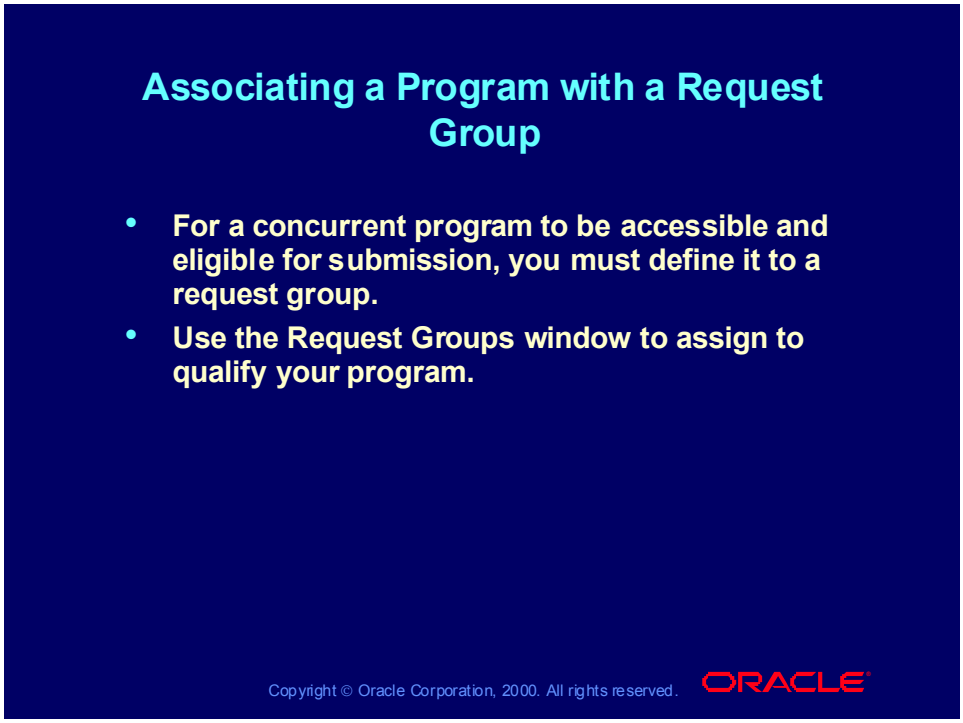
(Help) Applied Technology > Oracle Applications System Administration > Concurrent Programs Window

Concurrent Programs Parameters Window

(N) Concurrent > Program > Define > (B) Parameters

For a complete description of the fields in this window see

(Help) Applied Technology > Oracle Applications System Administration > Concurrent Programs Window > Concurrent Program Parameters Window

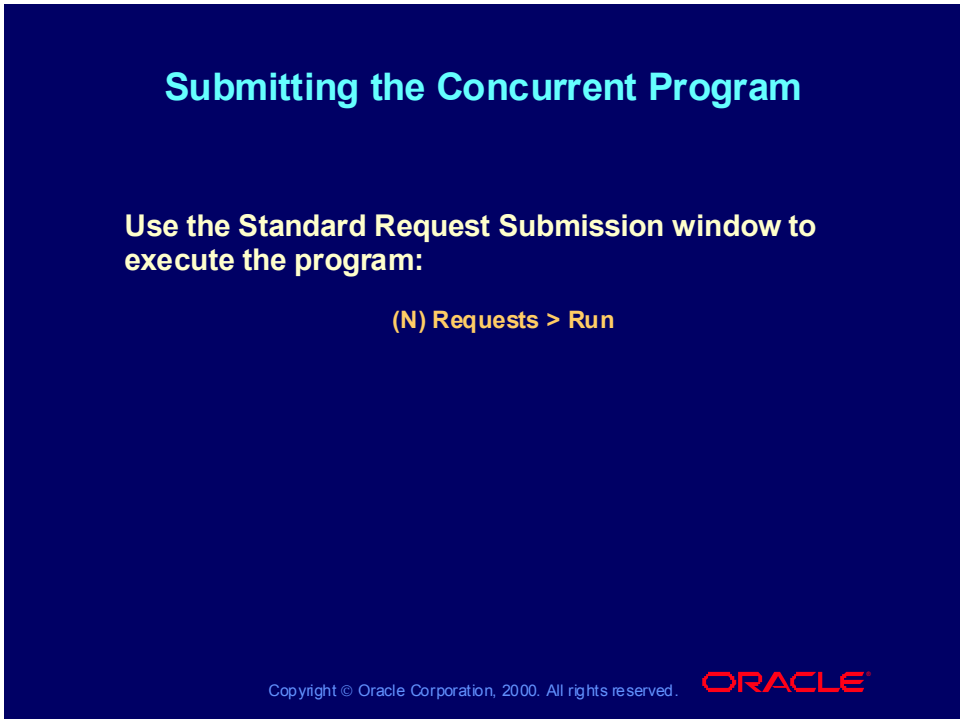


Associate a Program with a Request Group

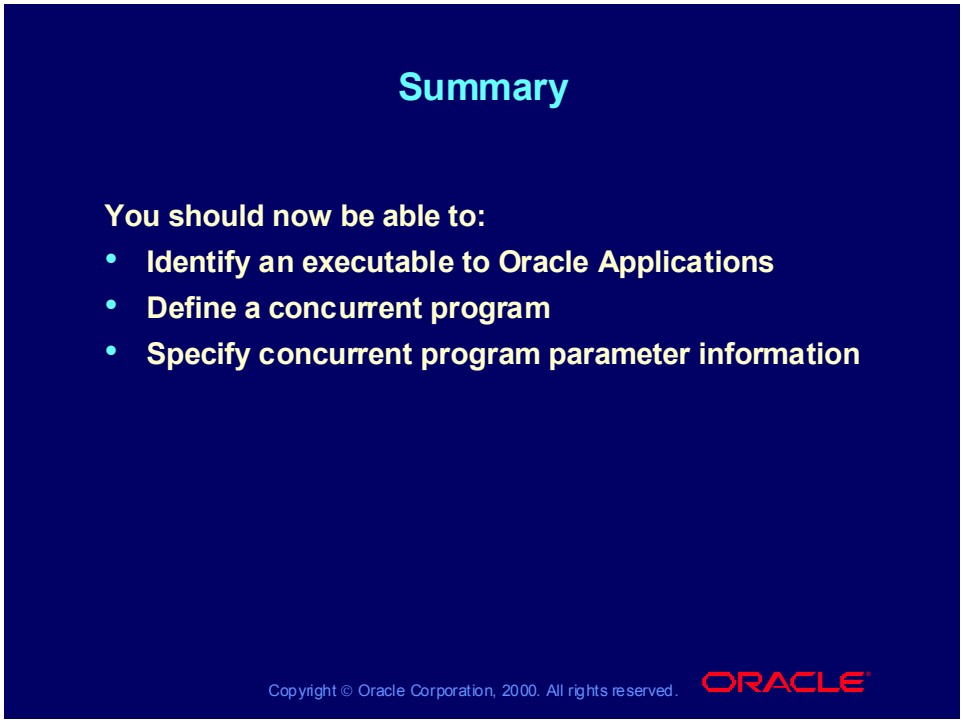
(N) Security > Responsibility > Request

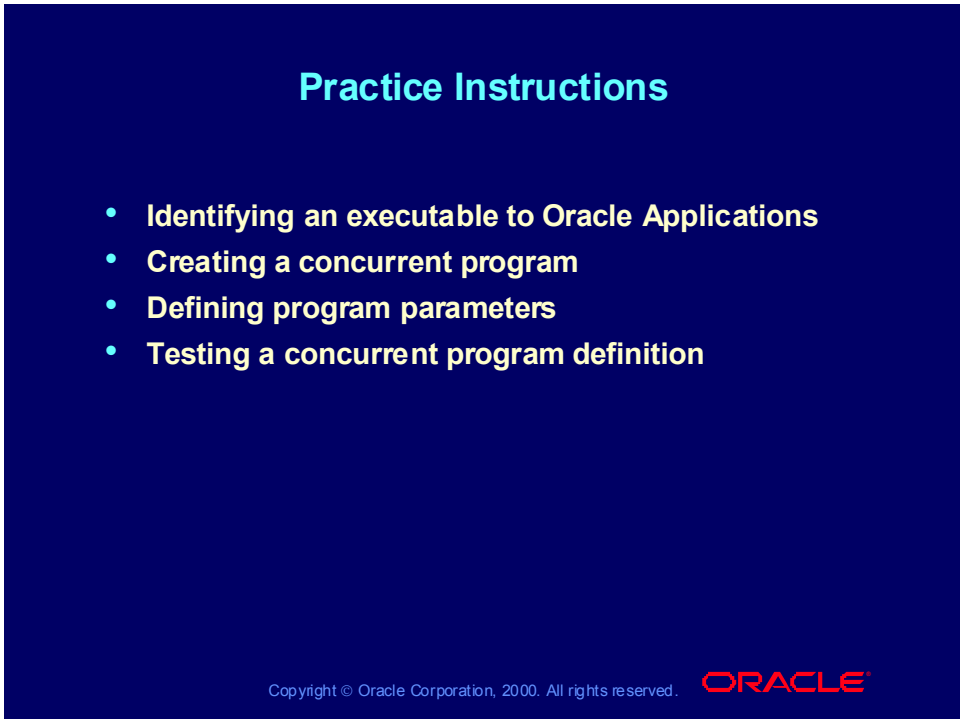
For the definition of the fields in this window see

(Help) Applied Technology > Oracle Applications System Administration > Request Group Window



Summary





Instructions

In this practice you will incorporate a program into Oracle Applications. You will not actually create a new program but will use an existing Oracle Applications reporting program instead. This is the Completed Concurrent Requests Report.

Identifying the Executable

Your first task is to identify the executable to Oracle Applications. Navigate to the Concurrent Program Executable window and use the data below to fill out the window.

Executable:	*nnn*S_Completed Concurrent Requests
Short Name:	*nnn*S_CCR
Application:	*nnn*S_Custom_App
Description:	*your description*
Execution Method:	Oracle Reports
Execution File Name:	FNDCPCRQ

Defining the Concurrent Program

After you have created your executable, you need to create a concurrent program to contain it. Use the data below to complete the Concurrent Programs window.

Program:	*nnn*S_Conc_Req
Short Name:	*nnn*S_CRQ
Application:	Custom Application
Description:	*your description*
Executable Name:	*nnn*S_CCR
Columns:	132
Rows:	45
Style:	Landscape

Specifying the Program Parameters

After you have created the concurrent program, you need to specify all the parameters needed by the program. Use the data in the following charts to define all the parameter information needed. Let any fields not referenced in the directions simply default.

Note: Be careful when specifying the token name.

Parameter 1:

Field	**Entry**
Sequence:	1
Parameter:	Program Application Name
Value Set:	Application_Name_to_Shortname
Default Type:	
Display Size	50
Description Size:	50
Concatenated Description Size	25
Prompt:	Program Application Name
Token:	P_Appl_Short_Name

Parameter 2:

Field	**Entry**
Sequence:	2
Parameter:	Program Name
Value Set:	CONC-Program Name
Default Type:	
Display Size	50
Description Size:	50
Concatenated Description Size	25
Prompt:	Program Name
Token:	P_Program_Name

Parameter 3:

Field	Entry
Sequence:	3
Parameter:	User Name
Value Set:	AP_SRS_USER_NAME
Default Type:	
Display Size	50
Description Size:	50
Concatenated Description Size	25
Prompt:	User Name
Token:	P_User_Name

Parameter 4:

Field	Entry
Sequence:	4
Parameter:	Start Date
Value Set:	CST_SRS_FROM_DATE
Default Type:	
Display Size	9
Description Size:	50
Concatenated Description Size	25
Prompt:	Start Date
Token:	P_Startdate

Parameter 5:

Field	Entry
Sequence:	5
Parameter:	End Date
Value Set:	CST_SRS_TO_DATE
Default Type:	
Display Size	9
Description Size:	50
Concatenated Description Size	25
Prompt:	End Date
Token:	P_Enddate

Testing Your New Program

To test your incorporation of a new concurrent program, create a new request set containing only the new concurrent program. Navigate to the SRS window and execute the request set. You should be prompted for parameter values, and your report should run successfully.

Practice Solutions

Identifying the Executable

1. Navigate to (N) Concurrent > Program > Executable.
2. Enter the data from the instructions into the appropriate fields on the window.
3. Click Save to save your work.

Defining the Concurrent Program

4. Navigate to (N) Concurrent > Program > Define.
5. Enter the data from the instructions into the appropriate fields on the window.

Specifying the Program Parameters

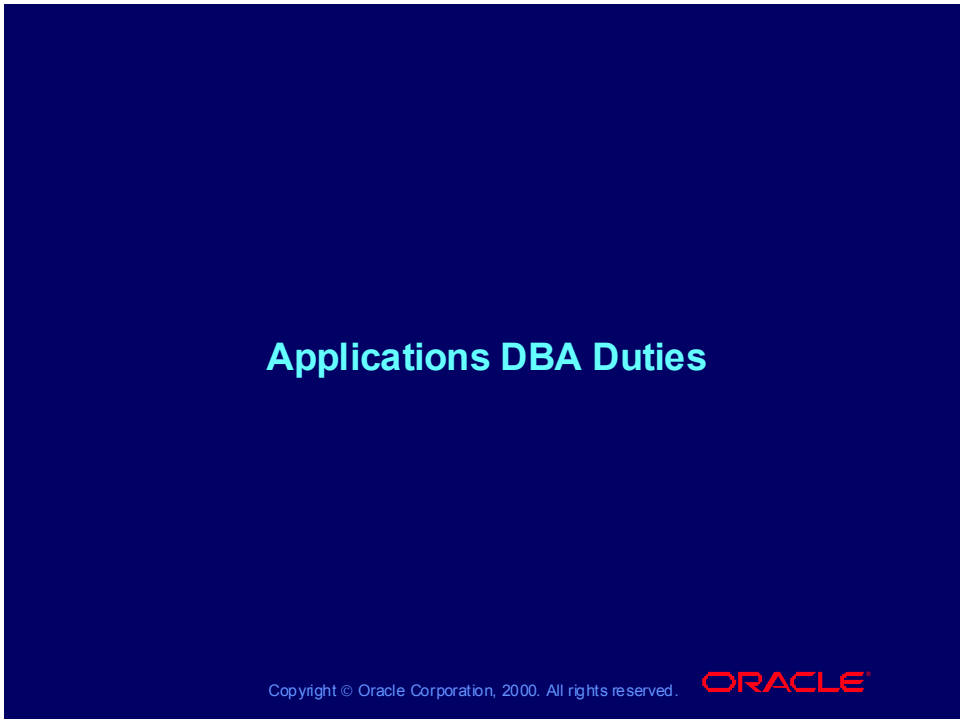
6. Click Parameters to fill in the appropriate parameter information listed in the instructions. In the Value Set field, use the list of values to find the appropriate entry.
7. Continue filling in the parameters as listed in the instructions.
8. Click Save to save your work.

Test your new program

9. Navigate to (N) Requests > Set.
10. Create a request set containing only the new concurrent program that you created in Step 5. Use the Request Set Wizard to enter the appropriate information.
11. Navigate to (N) Requests > Run
12. Execute the request set and watch your report run successfully.

Applications DBA Duties

Chapter 9



Notations:

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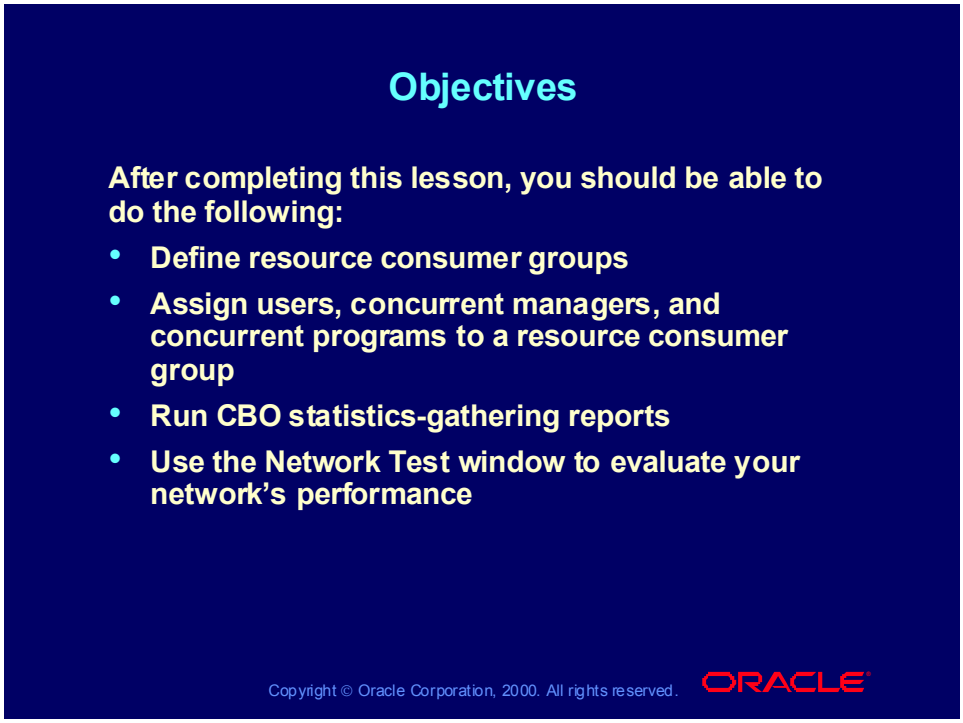
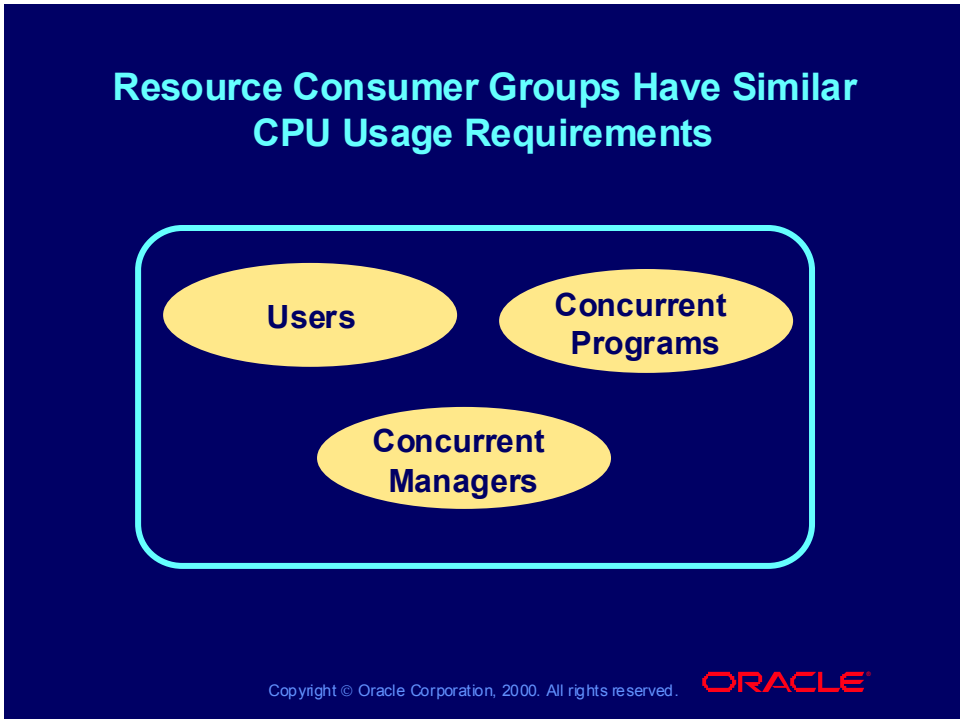
(Help) = Oracle Applications Help System



Lesson Topics

The administration of Oracle Applications includes some duties that can fall to either the Database Administrator or the System Administrator to perform. This lesson describes several security tasks from different functional areas, which encompass forms from various locations on the System Administrator menu tree. These tasks are referred to as Applications DBA duties.

Resource Consumer Groups Have Similar CPU Usage Requirements

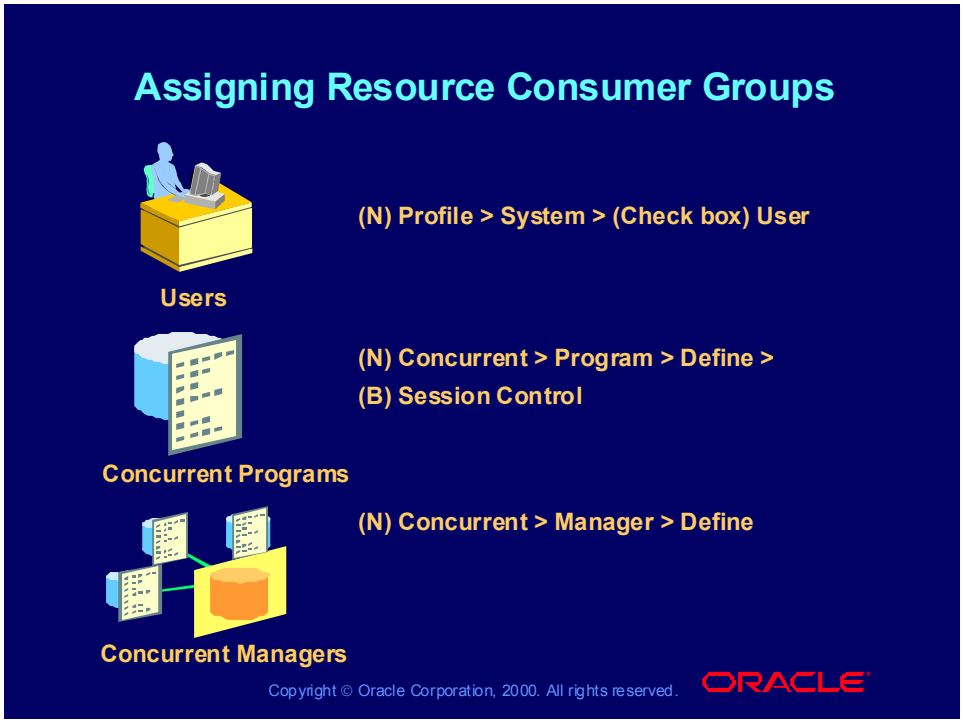


Resource Consumer Groups: Definition

Resource consumer groups and resource plans are tools used to allocate and manage resources among database users and applications. The database administrator establishes resource consumer groups to define users, concurrent managers, or concurrent programs that have similar CPU usage requirements. An overall resource plan is used to specify how resources are distributed among the different resource consumer groups.

System Administrator Assigns Resource Consumer Groups

Oracle Applications allows the system administrator to assign users, concurrent managers, and concurrent programs to existing resource consumer groups.



Assign a User

(N) Profile >System > (Check box) User

The system administrator can assign a user to a resource consumer group by setting the value of the user profile option FND:Resource Consumer Group for that particular user. The user can see this profile option but cannot update it.

Assign a Concurrent Program

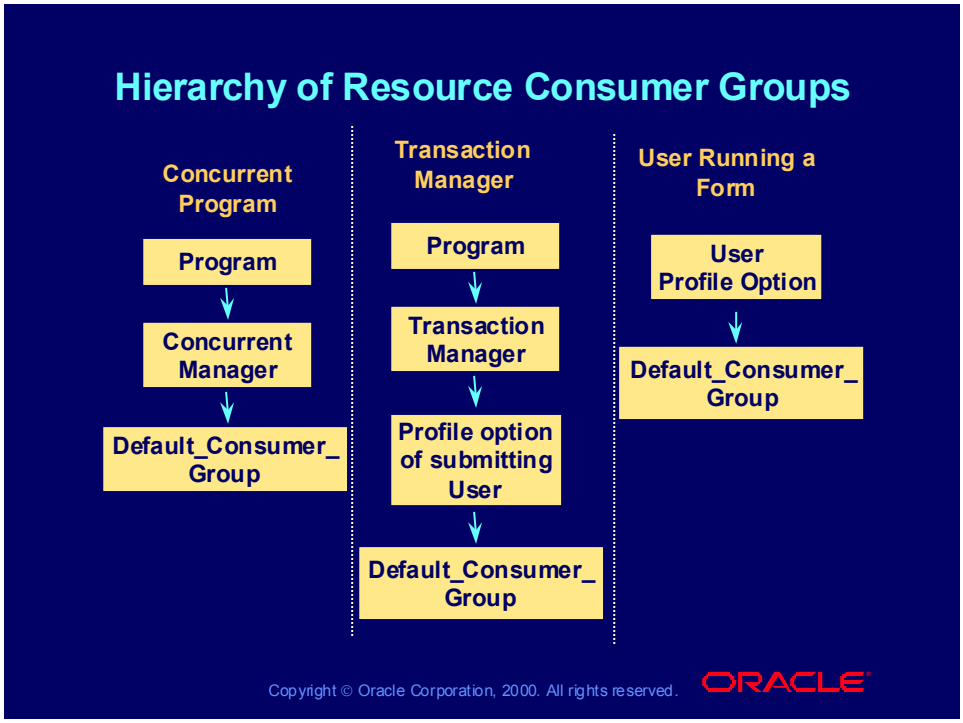
(N) Concurrent > Program > Define > (B) Session Control

The system administrator can assign a concurrent program to a resource consumer group in the Session Control window of the Concurrent Programs form.

Assign a Concurrent Manager

(N) Concurrent > Manager > Define

The system administrator can assign a concurrent manager to a resource consumer group in the Concurrent Managers form.



Hierarchy of Resource Consumer Groups

Conflicts can arise between the resource consumer groups associated with a single session. Oracle Applications uses a hierarchy to resolve these conflicts.

Concurrent Manager Running a Concurrent Program

When a concurrent program is submitted the system first checks for the resource consumer group assigned to the program. If none is assigned, the system will use the group assigned to the manager. If none is assigned to the manager, the system will use the default: Default_Consumer_Group.

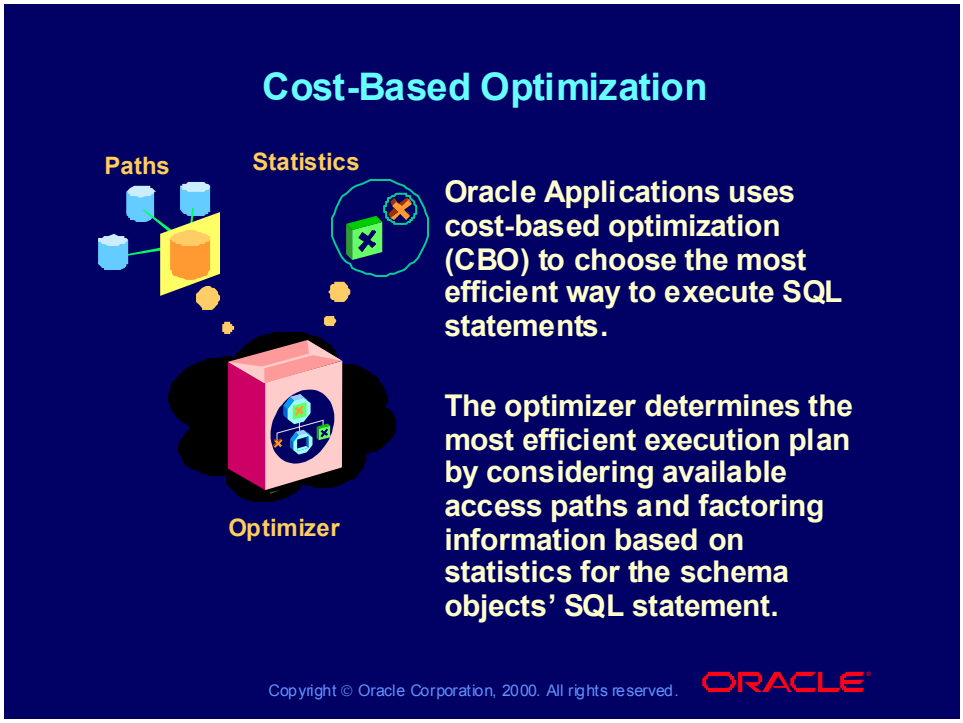
User Performing a Transaction

When a user performs a transaction, the system first checks the group assigned to the transaction. If none is assigned, the system checks the transaction manager. If the manager is not assigned to a group, the system checks the user's profile option. If the user does not belong to a group, then the system uses the Default_Consumer_Group.

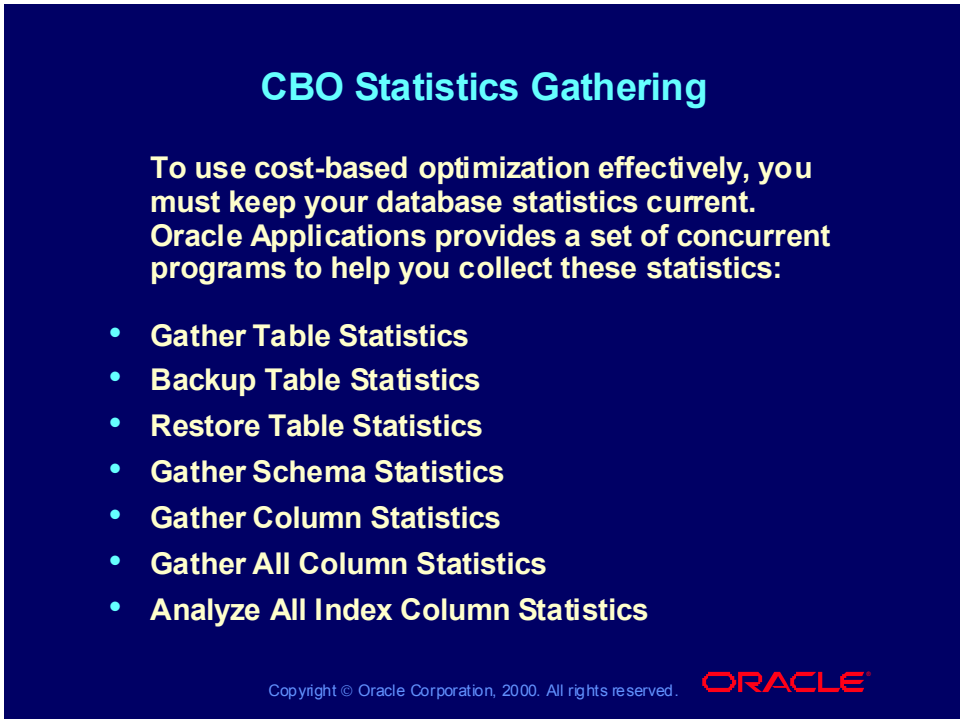
User Running a Form

When a user runs a form, the system first checks the user's profile option. If the user is not assigned to a group, the system uses the Default_Consumer_Group.

Cost-Based Optimization

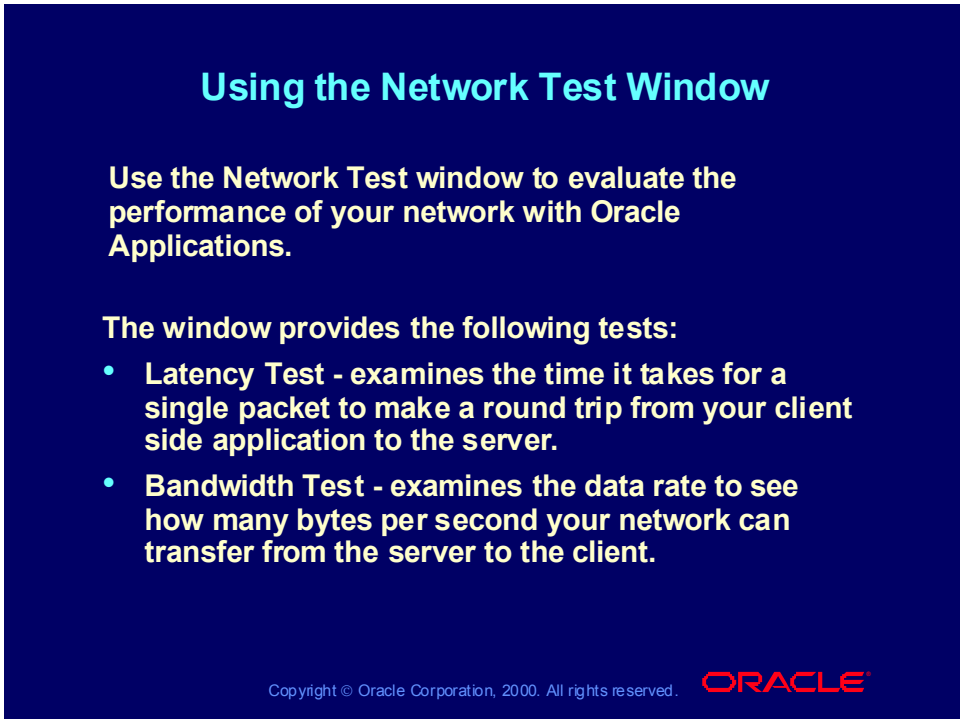


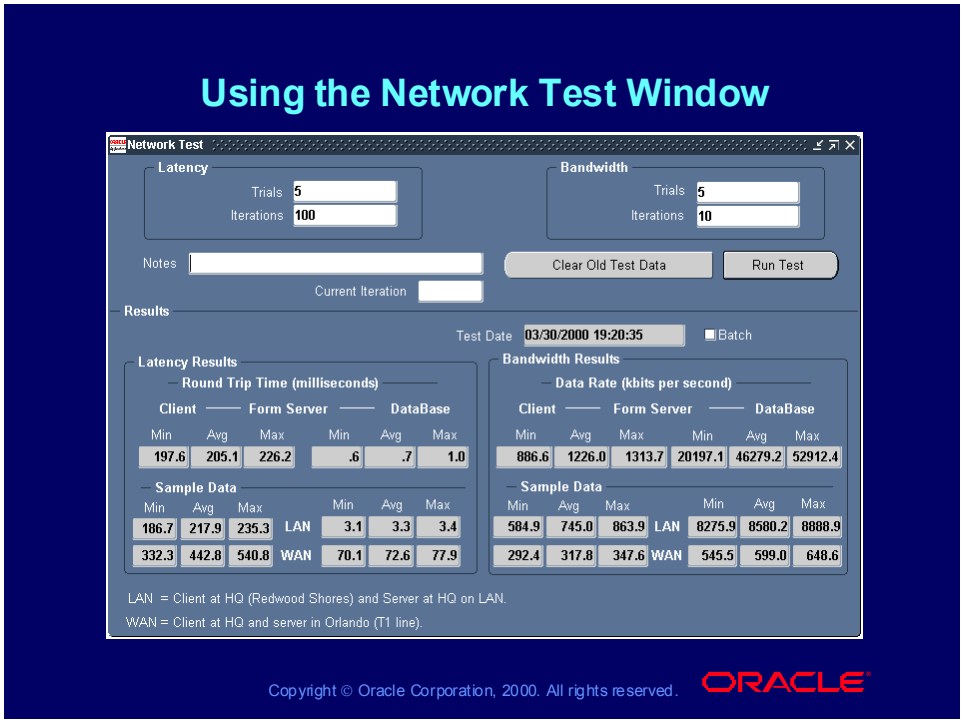
CBO Statistics Gathering



For further information on these reports see

(Help) Applied Technology > Oracle Applications System Administration > Cost-based Optimization > Concurrent Programs for CBO





Running Network Tests

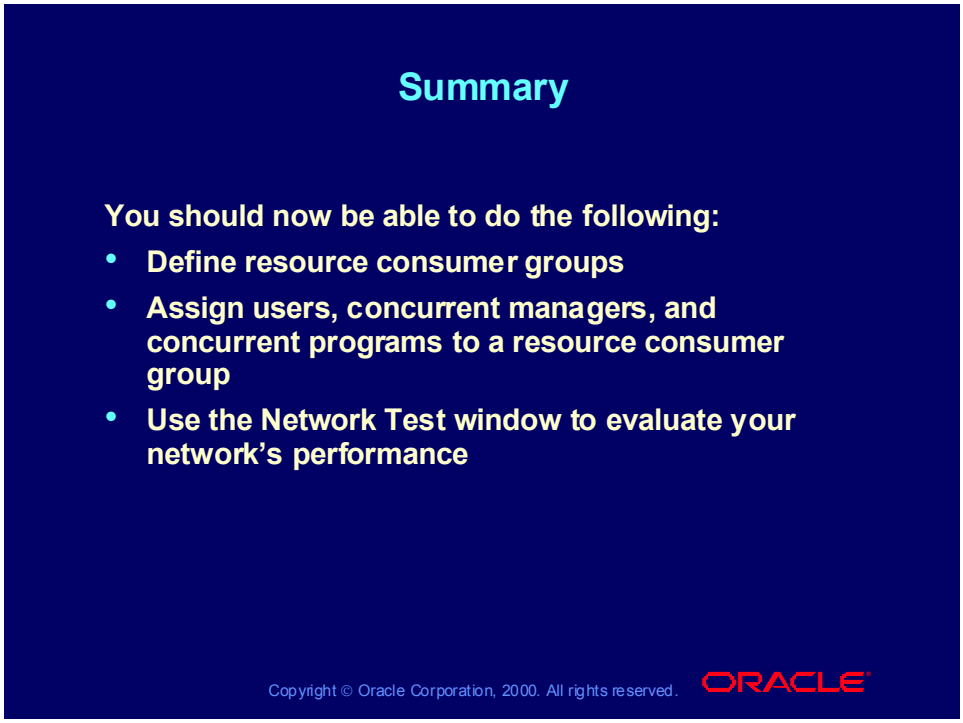
(N) Application > Network Test

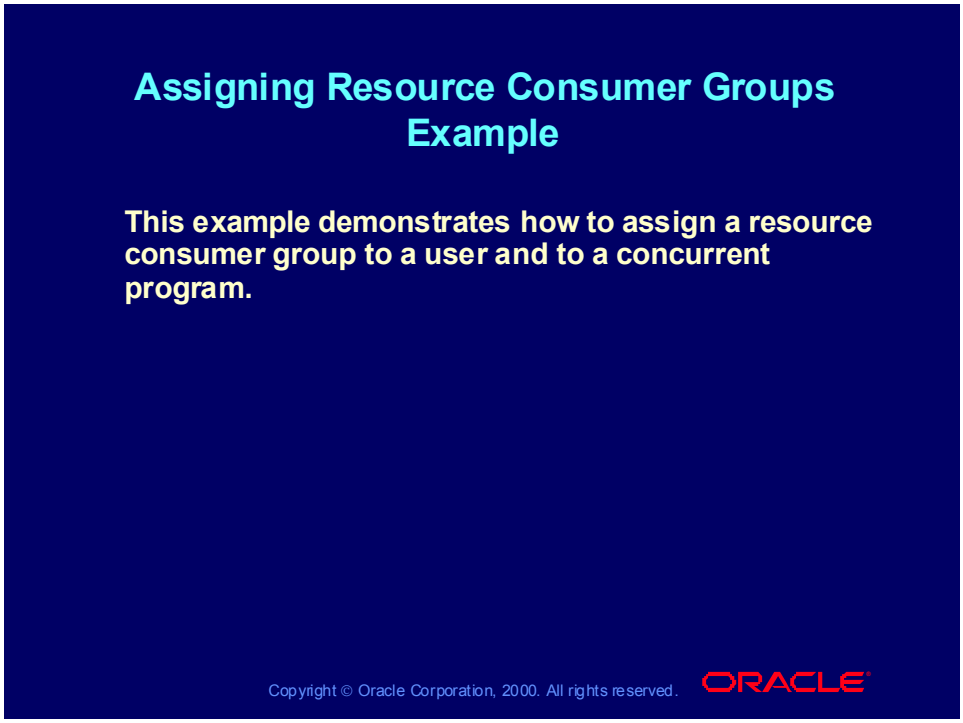
To Test Latency

- Specify the number of Trials and the Iterations for each trial.
- For each iteration, a single packet is sent from the client application to the server and back. A trial consists of the specified number of iterations. The total time for all round trips in a trial is divided by the number of iterations to obtain their average latency.
- The default settings are 5 trials of 100 iterations each. Select the Run Test button to perform the test.

To Test Bandwidth

- Specify the number of Trials and the iterations for each trial. For each iteration, several kilobytes of data are sent from the client to the server and back. The form measures the average rate at which the data travels.
- The default settings are 5 trials of 10 iterations each.
- Select the Run Test button to perform the test.
- Use the Clear Old Test Data button to purge previous test results from your database.





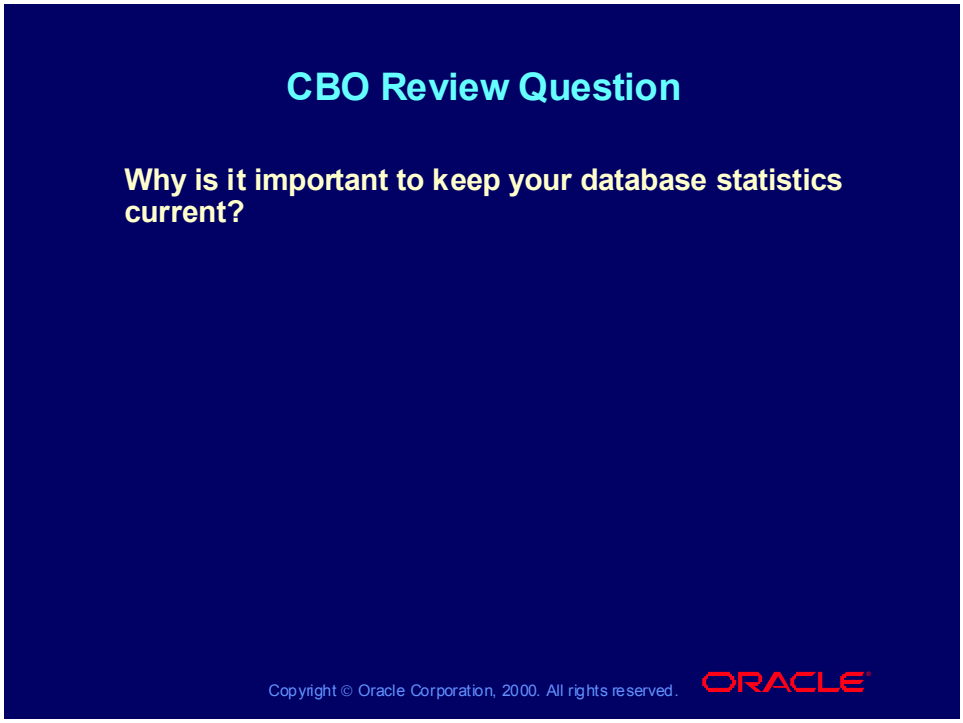
Assigning Resource Consumer Groups Example

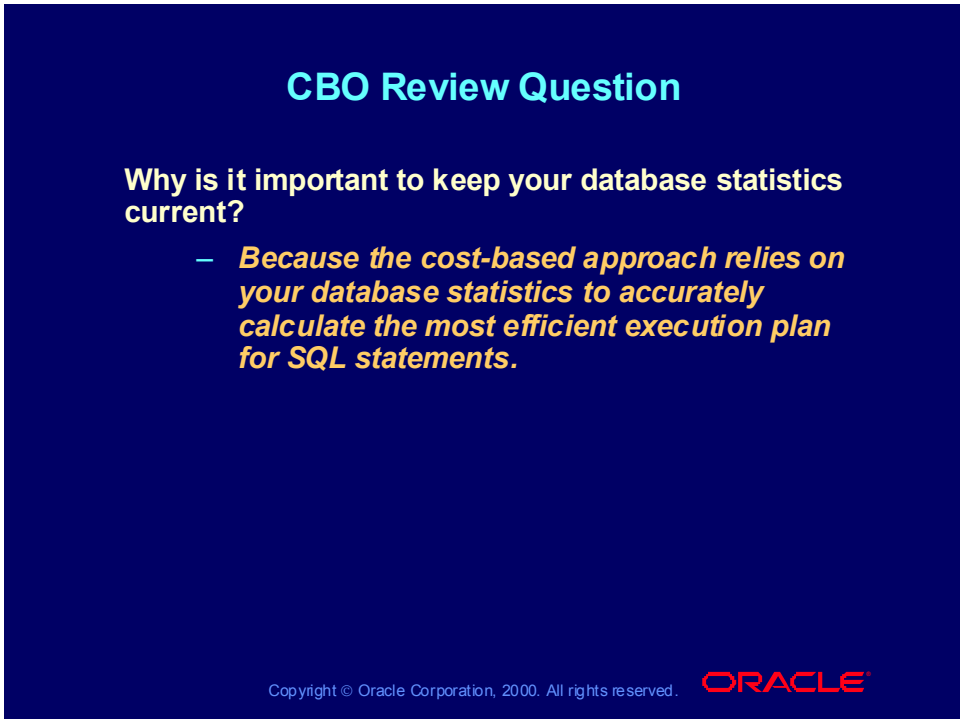
Assign a User to the DEFAULT_CONSUMER_GROUP Resource Consumer Group

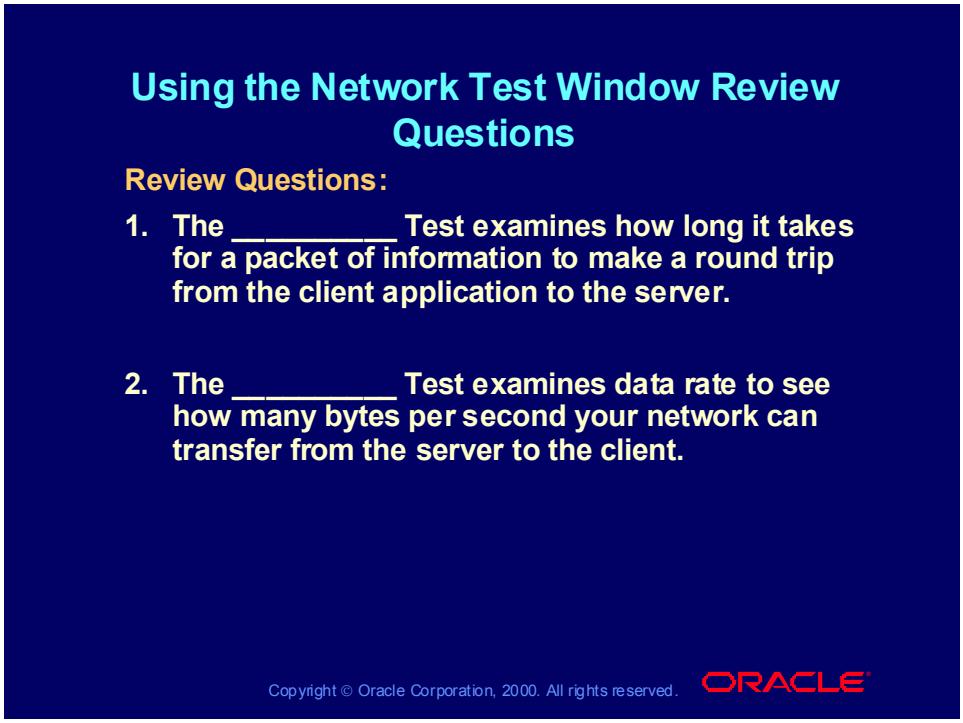
1. Navigate to the System Profile Values find window: (N) Profile > System.
2. Check the User check box and select your user from the list of values.
3. Select "FND: Resource Consumer Group" from the Profile list of values and click Find.
4. The System Profile Values window will display. Select "DEFAULT_CONSUMER_GROUP" from the list of values under the User column. Click Save to save your work.

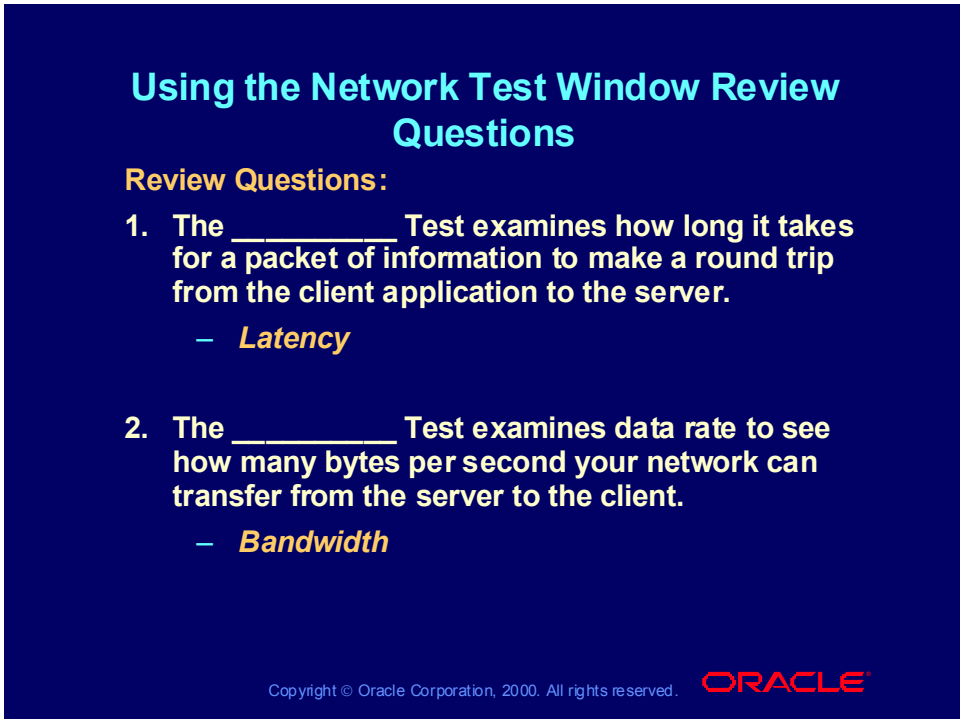
Assign a Concurrent Program to a Resource Consumer Group

1. Navigate to the Concurrent Programs window: (N) Concurrent > Program > Define.
2. Find your program.
3. Click the Session Control button.
4. Use the list of values to select the consumer group to which you wish to assign the program.
5. Click Save to save your work.









Incorporating Custom Help Files

Chapter 10

Notations:

(N) = Navigator
(T) = Tab
(I) = Icon
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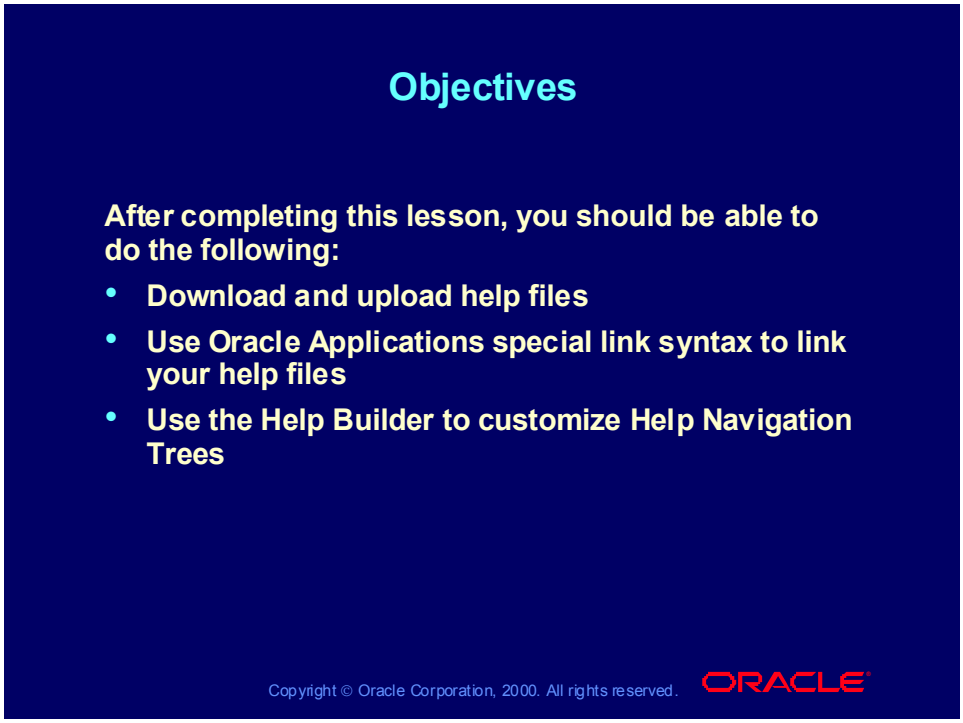
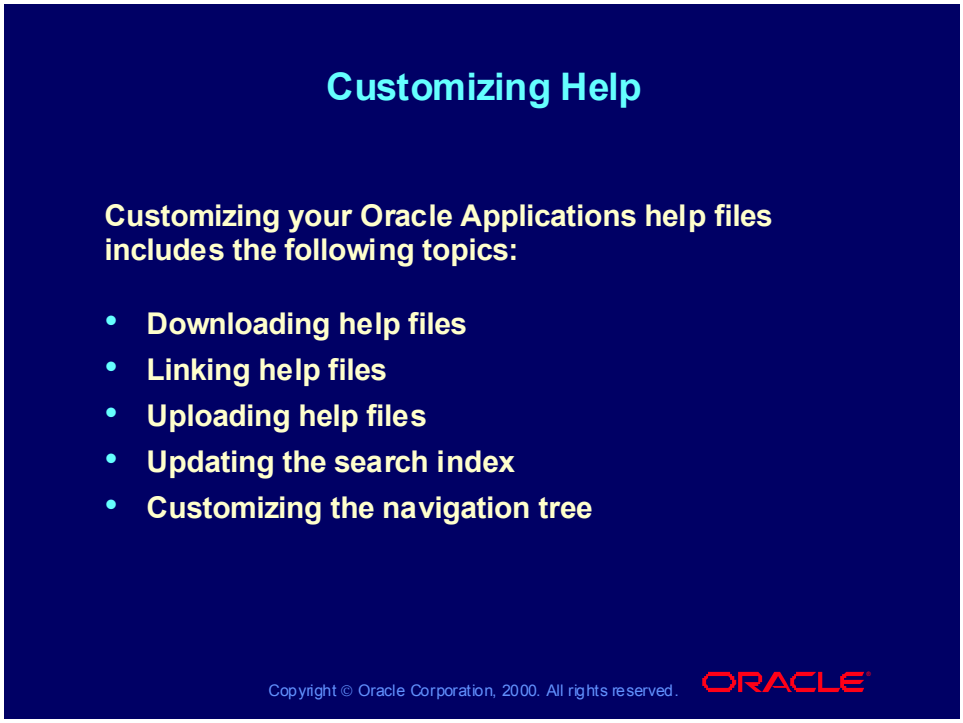
(Help) = Oracle Applications Help System



Lesson Aim

Oracle Applications uses an extensive network of help files to give users immediate online assistance. You can customize these help files by manipulating the files supplied by Oracle, or by adding your own to the system. This lesson covers how to integrate customized help files into Oracle Applications.



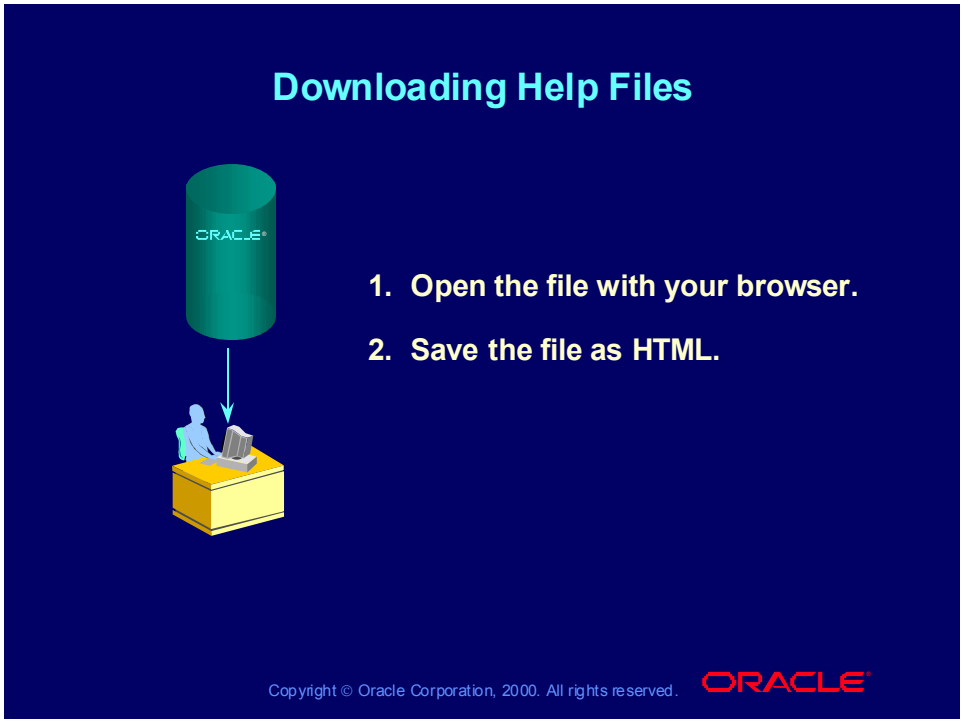
Overview of Customizing Help Files

In order to customize help files you first must download them into an area for manipulation. Oracle Applications help files are in HTML format, making them easy to modify using a commercial web browser/editor such as Netscape Communicator. You can also add HTML and GIF files of your own.

Oracle Applications help files use a special link syntax that points the links to anchors within files rather than to the files themselves. This method ensures that hypertext links will not be broken if files are renamed or split. This lesson explains how to use this syntax, although it is not required for your custom help files.

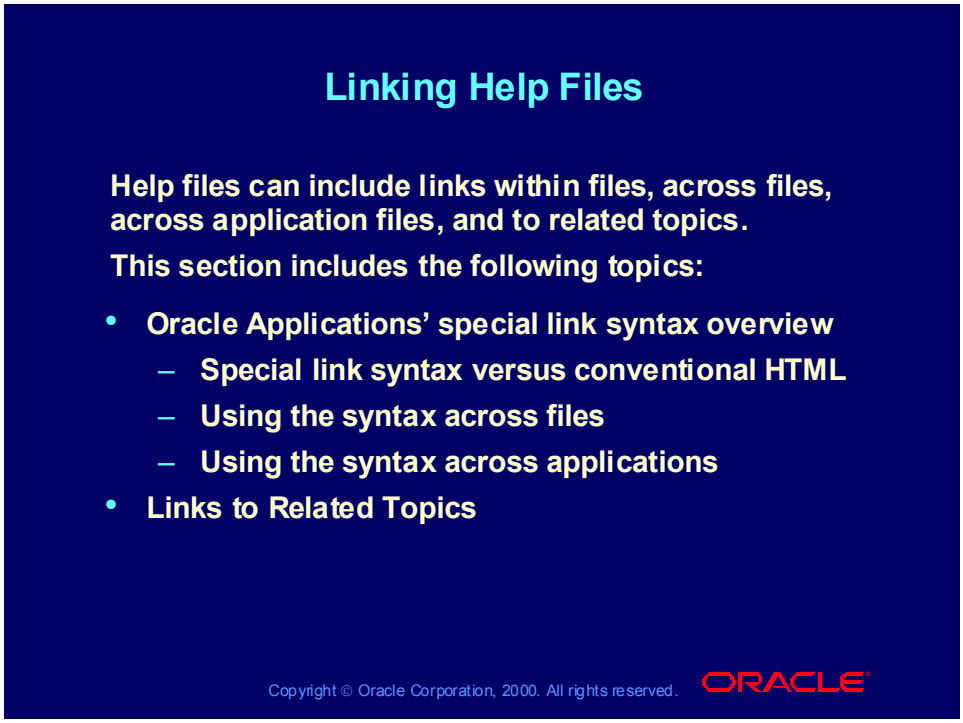
When your changes are complete, upload the files back to the appropriate Oracle Applications directory and rebuild the Search index.

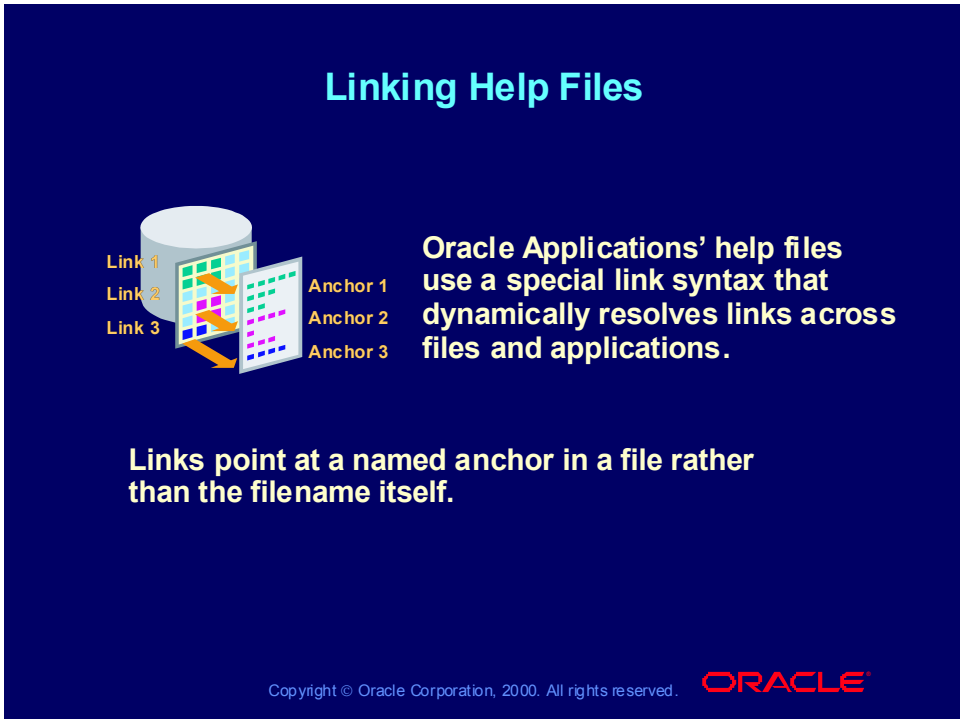
Use the Help Builder applet to update the navigation tree with your new files.



Downloading a File

To download a file, open it in you web browser and save it as an HTML file. If an @ sign is the first character of the file name, remove it.





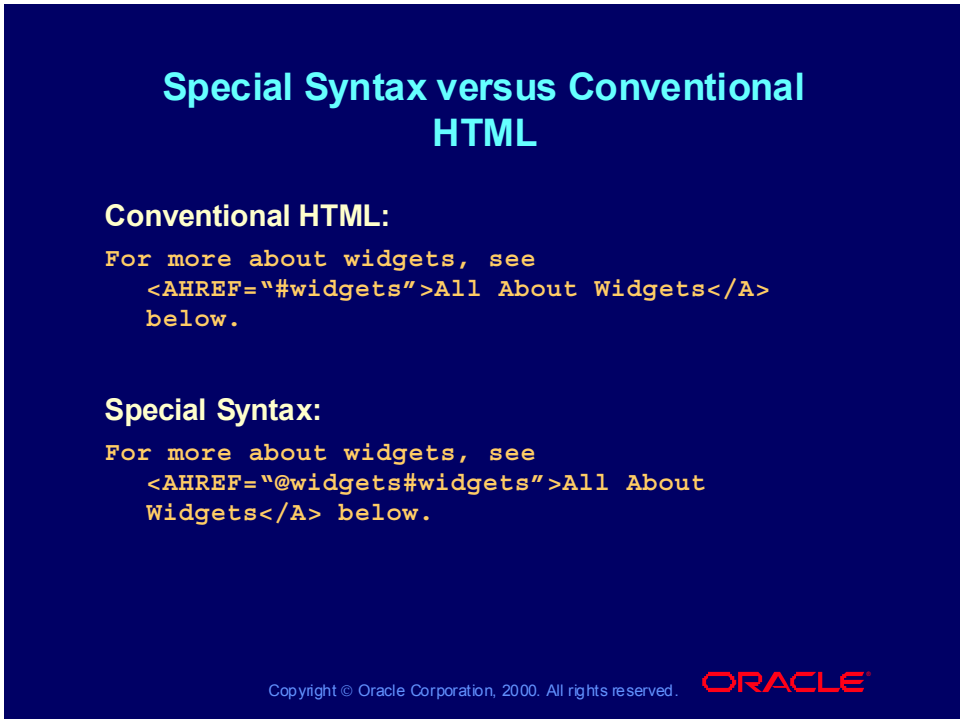
Oracle Applications Special Link Syntax: Overview

The Oracle Applications help system supports a special syntax for hypertext links that keeps them working even when files are renamed or split into parts.

Links in Oracle Applications help files point at a named anchor contained in the file rather than the filename itself. The help system resolves the anchorname to file link dynamically, every time a link is negotiated.

Information on which files contain which anchornames is put into the help system automatically on upload. Authors must ensure that anchornames are unique across an application's help files to prevent duplicate links.

It is not required that you use Oracle's special syntax for your custom help files. If you prefer, you can always use conventional hypertext links based on filename.

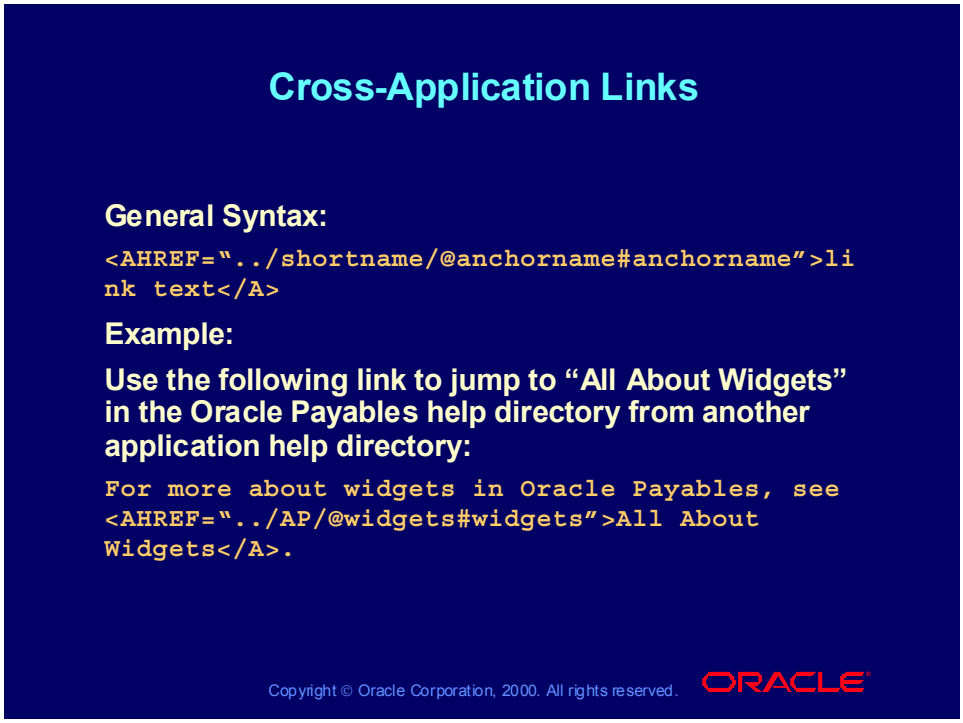


Using the Special Syntax

The conventional HTML example would allow the user to jump forward to a section with the anchorname "widgets."

Oracle Applications help files extend this HTML syntax to create links not only within, but also between help files.

To link to a file that contains a particular named anchor, you simply place an "@" before the anchorname. To link to the precise spot within the file where the anchor appears, you append a pound sign followed by the anchorname, just as you would in conventional HTML.

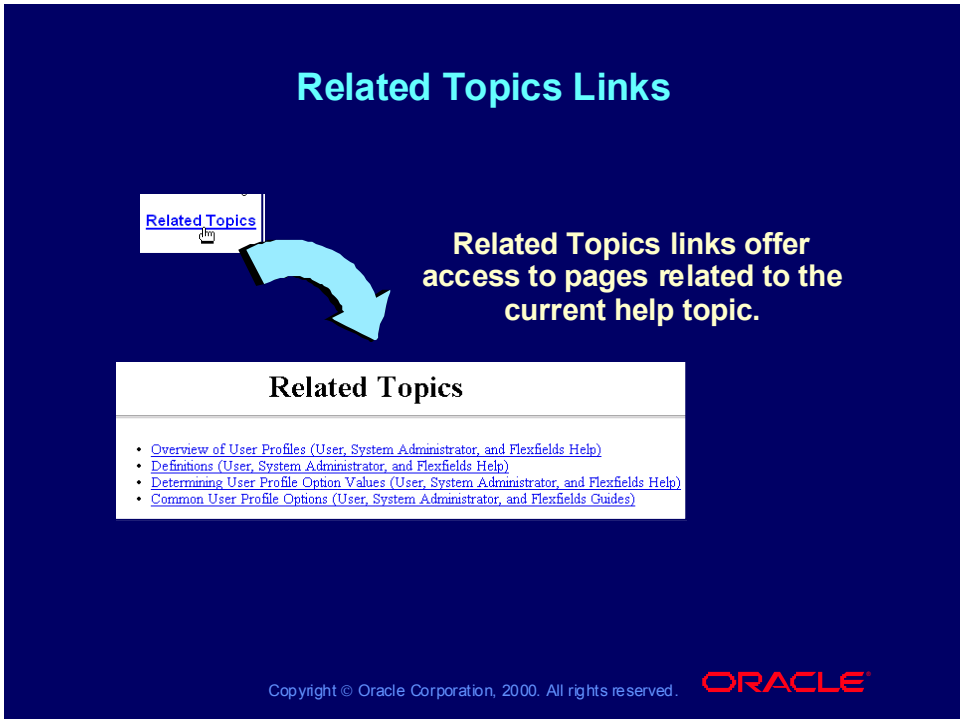


Using the Special Links Syntax Across Applications

In the Oracle Applications help system, all help files associated with a particular application exist in the same directory, as far as their URL is concerned. Help files associated with other applications exist in directories named after the application's short name. All these application directories are at the same level in the help system.

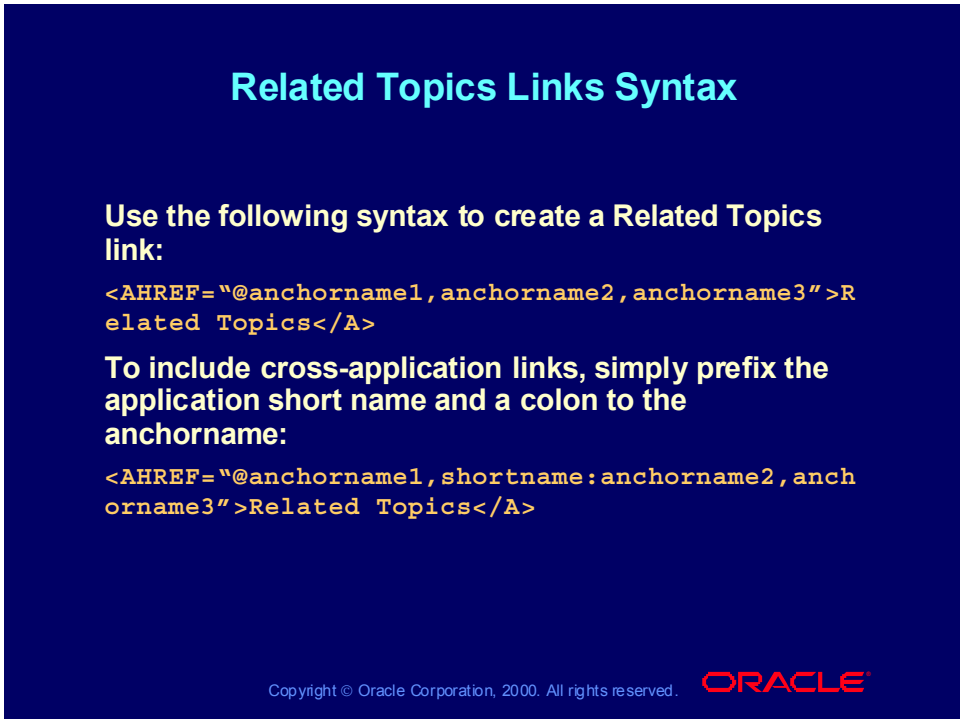
To create a link that goes to a help file associated with a different application, you create a relative link that goes up a level to the parent of all help application directories, and then back down through the other application's directory, before concluding with Oracle Applications' special link syntax.

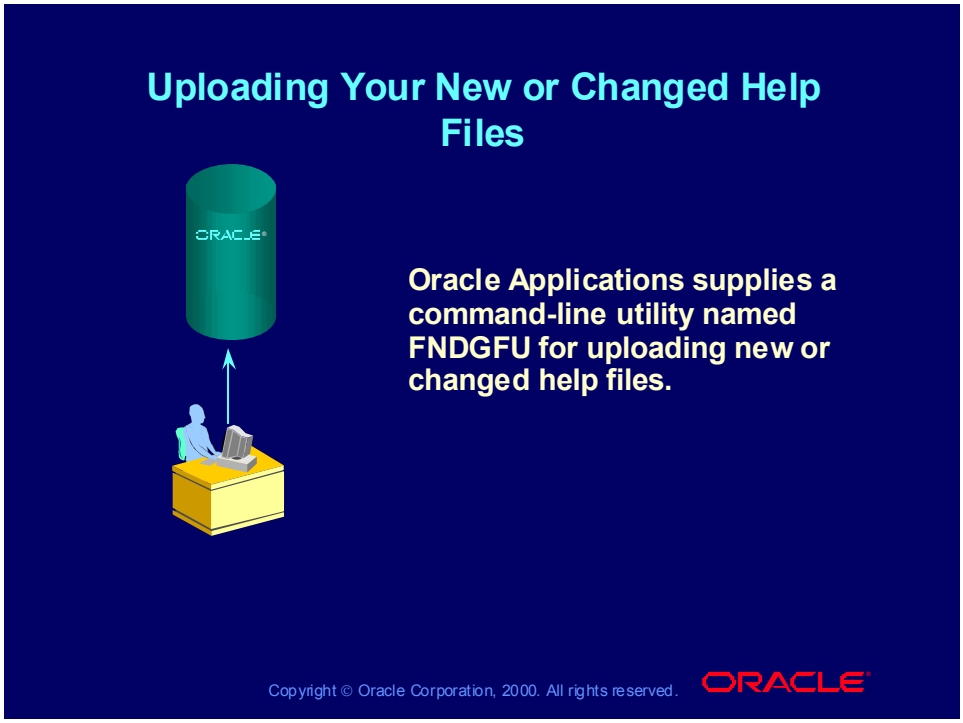
Related Topics Links



Related Topics Links

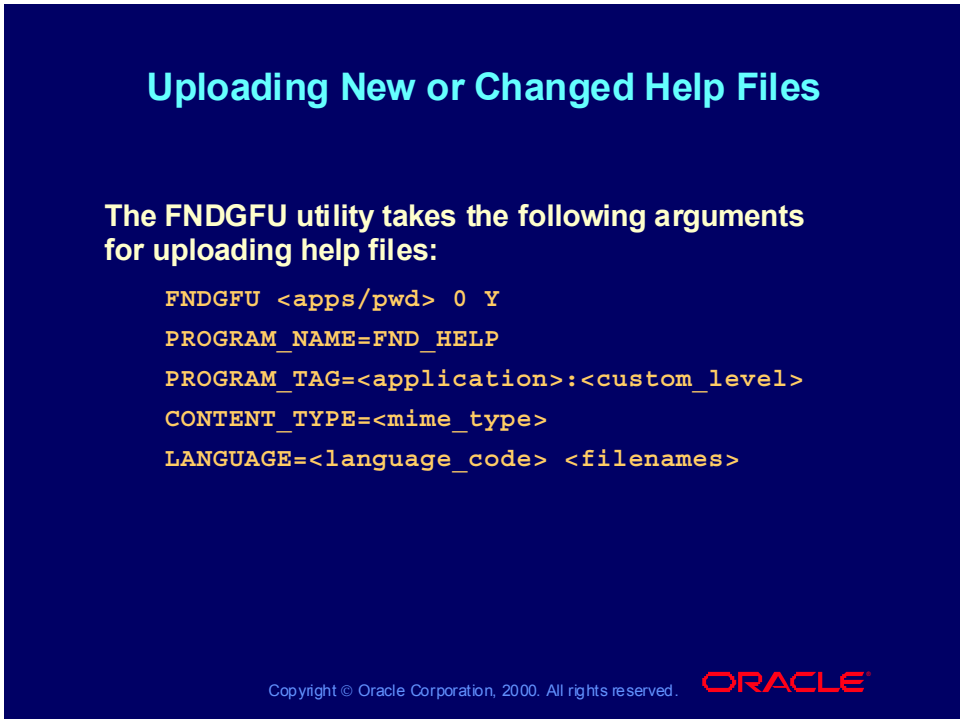
When a user negotiates a Related Topics link, a page headed “Related Topics” appears containing a list of the related page links.





The FNDGFU utility

FNDGFU is located in the $FND_TOP/bin directory. Putting this directory on your path will allow you to invoke FNDGFU easily.



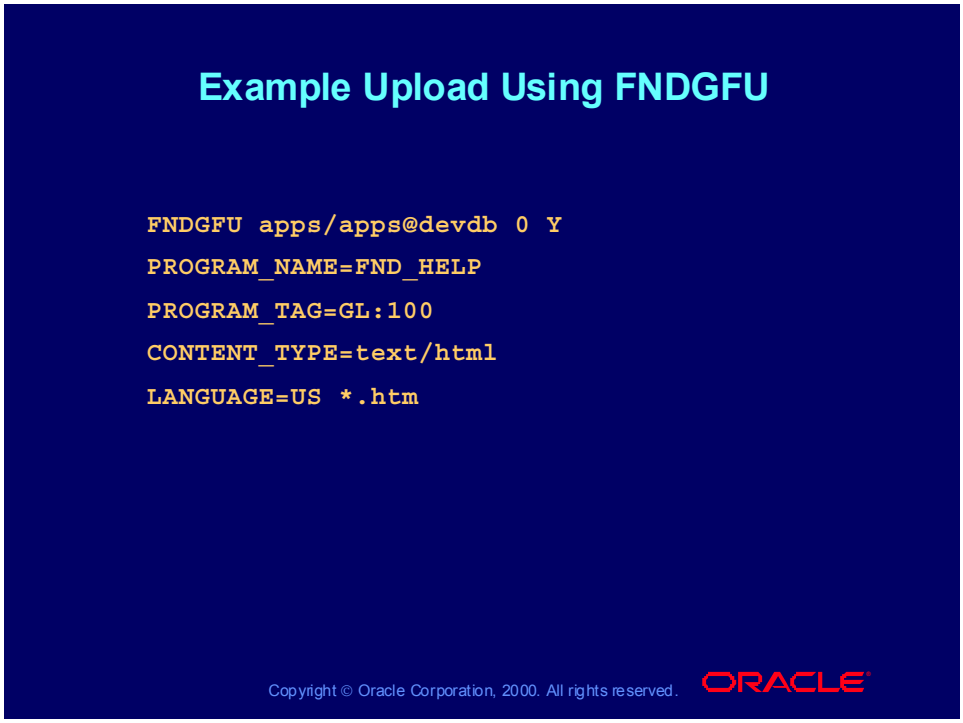
Using FNDGFU

The components of the argument are:

<apps/pwd>	is the APPS schema username/password.
<application>	is the application short name.
<custom_level>	is the files' customization level. Use the number 100 or above for customized help files.
<mime_type>	is the files' MIME type.
<language_code>	is the files' language code.
<filenames>	is a space-separated list of files to upload or a filename glob in the current directory.

Enter all arguments on a single command line.

Example Upload Using FNDGFU



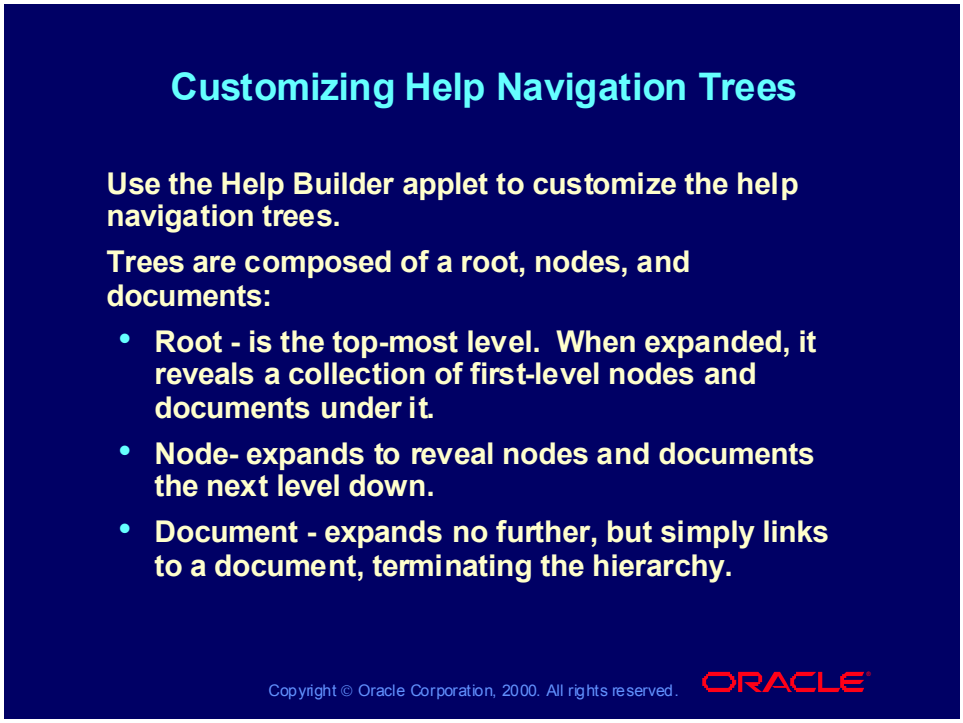
Uploading a File: Example

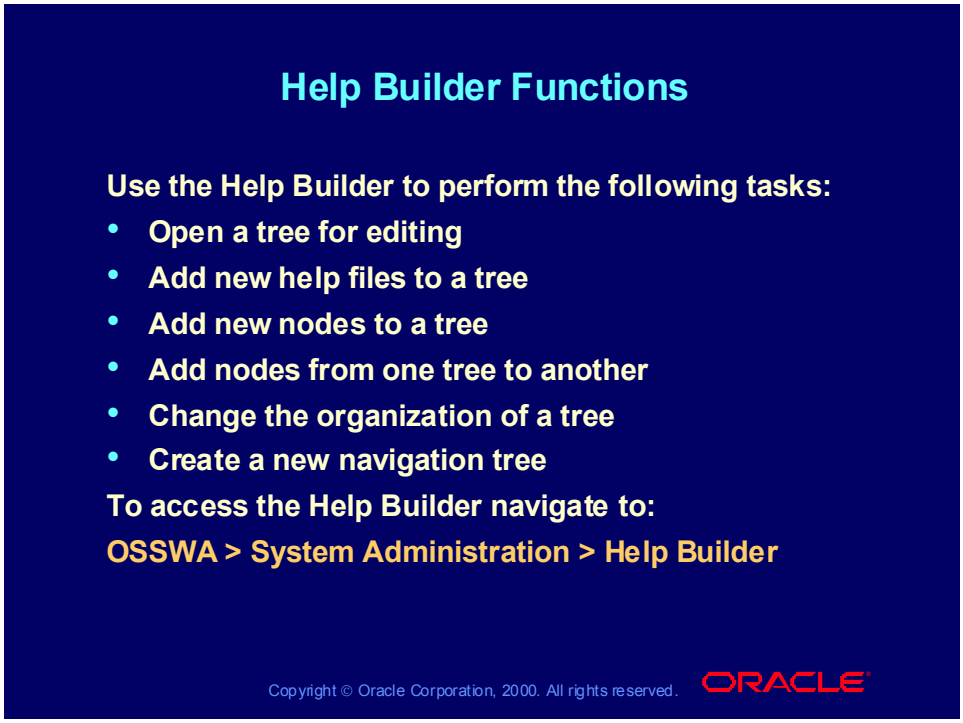
- Connects to apps/apps@devdb
- Identifies uploaded files as part of Oracle General Ledger (GL) help
- Identifies the uploaded files' customization level as 100
- Identifies their MIME type as text/html
- Identifies their language as US English (US)
- Uploads all .htm files in the current directory (in UNIX)

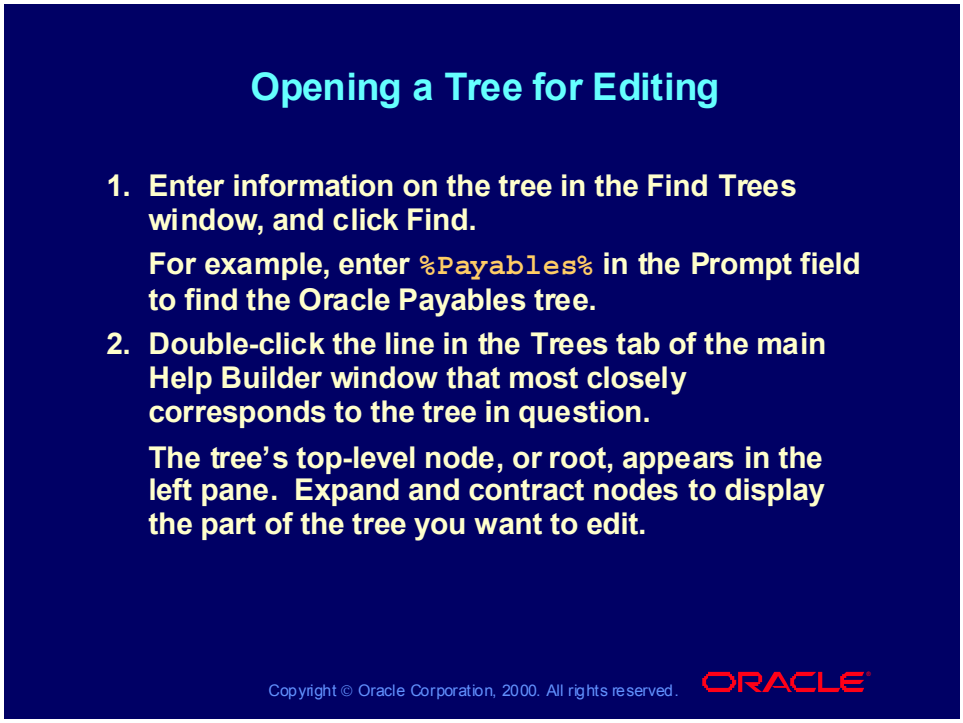
Updating the Search Index

Rebuilding the Search Index

Oracle interMedia Text enables the search feature provided by the Oracle Applications help system. Rebuilding the search index ensures that your custom files will be included in any searches your users perform.



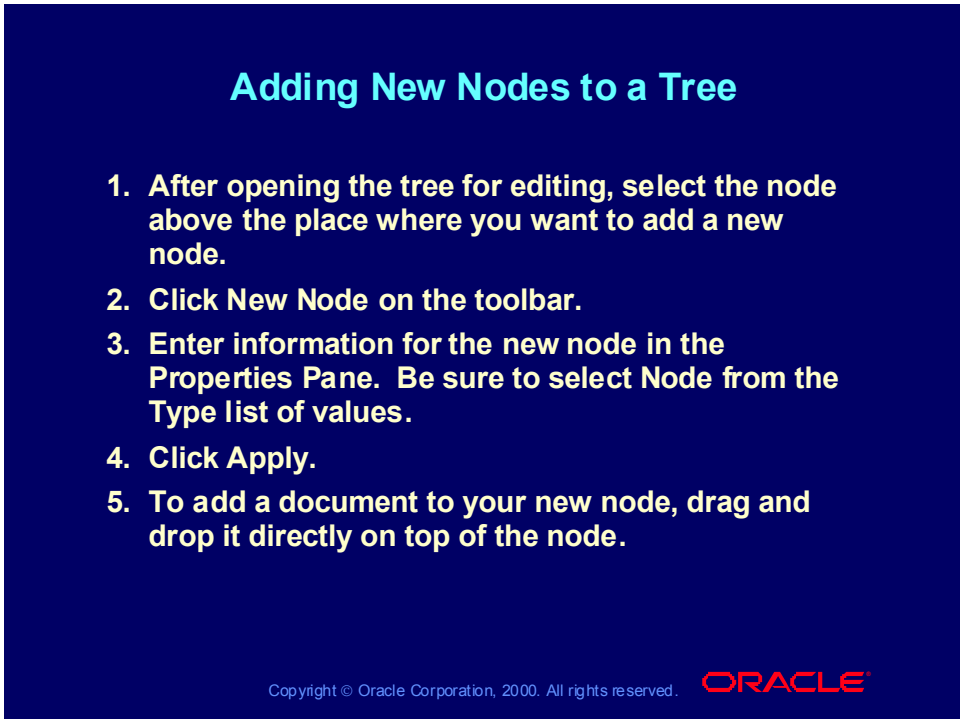


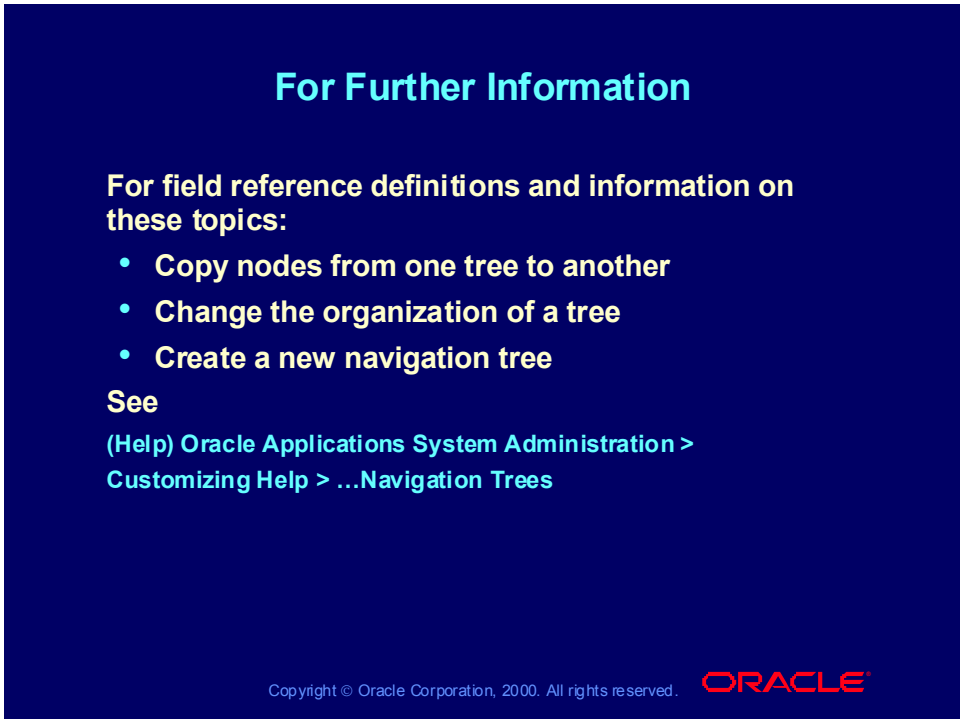


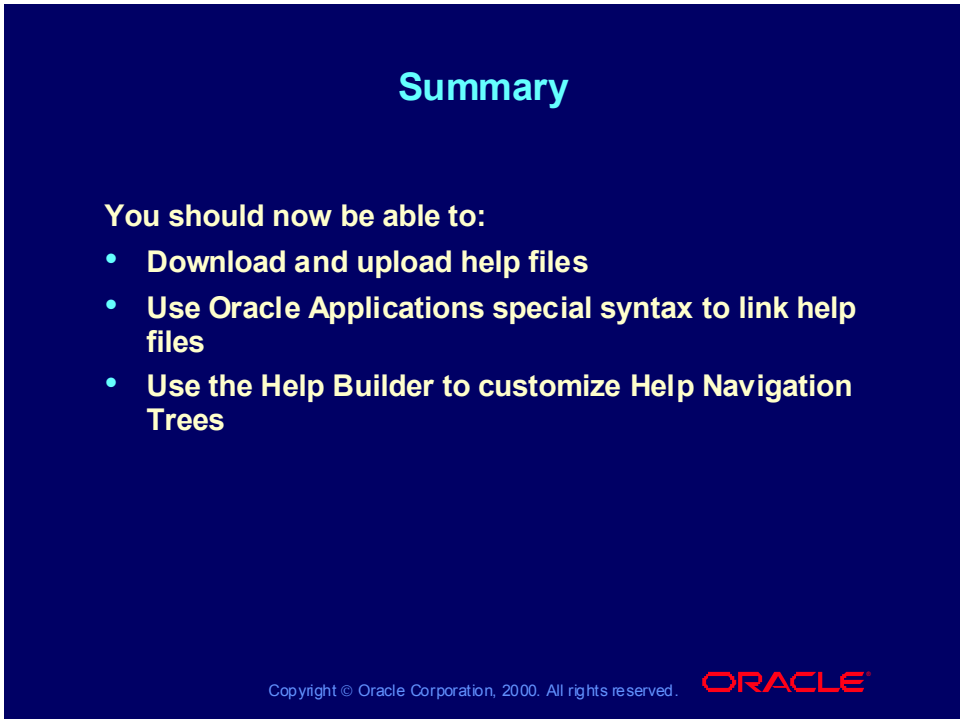
Adding New Help Files to a Tree

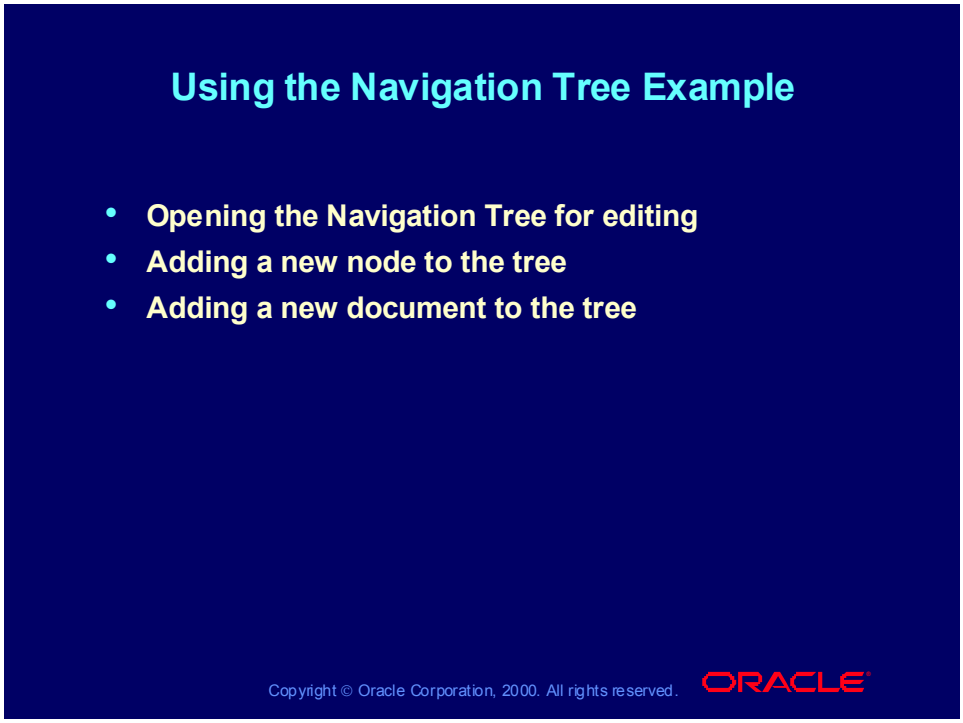
Note:

Files containing named anchors appear multiple times: once with the filename, and once with each anchorname listed as the Target. Be sure to choose the anchorname that corresponds to the topic you want to add.









Using the Navigation Tree Example

This example demonstrates how you would open the Navigation Tree for editing and add a new node and documents to the tree. This example will show you how to access the Oracle Applications AOL root, create a new node called "Flexfield Overviews" and copy documents into this node.

Opening the Tree for Editing

1. Navigate to the Help Builder: OSSWA > System Administration > Help Builder.
2. In the Find Trees window, enter "Oracle Applications AOL" in the Prompt field and click Find. The Oracle Applications AOL root will appear in the Trees tab in the upper right pane of the Help Builder window.
3. Double-click "Oracle Applications AOL" on the Trees tab. This will display the tree in the large left pane of the Help Builder window.
4. Click on the + to expand the tree. Open the Oracle Applications System Administration node of the tree.

   Notice that as you click on various nodes and documents on the tree the Properties of the selected item are displayed in the Properties pane.

Add a Node to the Tree

1. Scroll down the tree until you the node called Applications DBA. Select this title by clicking on it once.

   Note: Do not click on the +. You do not want to expand this node, you just want to select it in order to add a node beneath it.
2. Click the New Node icon on the toolbar to add a node beneath the selected node.

3. In the Properties pane on the lower right, enter the name for the new node in the Prompt field: “Flexfield Overviews.”
4. Click Apply.

Find and Add Documents to the Tree

1. Click the Find Documents icon on the toolbar to display the Find Documents window. Enter “Overview” in the Title field and check the Exclude documents already on a tree checkbox. Click Find.

   The Documents tab in the upper right pane of the Help Builder window will become enabled and display a list of documents which match your search criteria.
2. Select the document with title “Overview of Flexfield Concepts.”
3. Drag and drop the document directly on top of you new Flexfield Overviews node. The document will immediately appear on the tree. Repeat this step with the following documents, dragging and dropping them beneath your first document:

   Overview of Shorthand Flexfield Entry

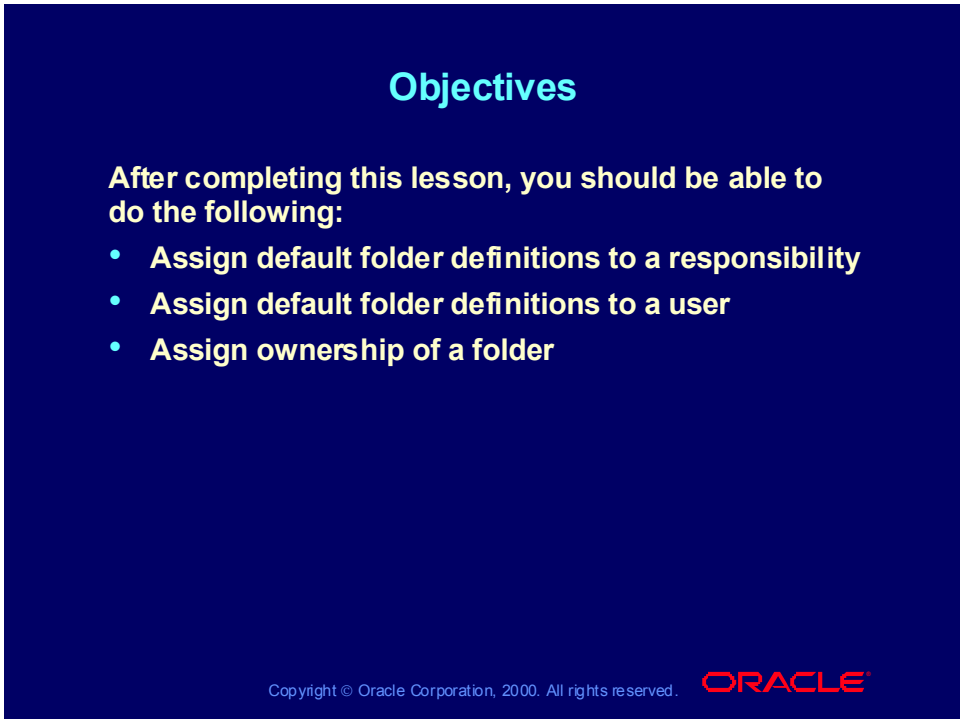
   Overview of Flexfield Value Security
4. Save your work.

Administering Folders

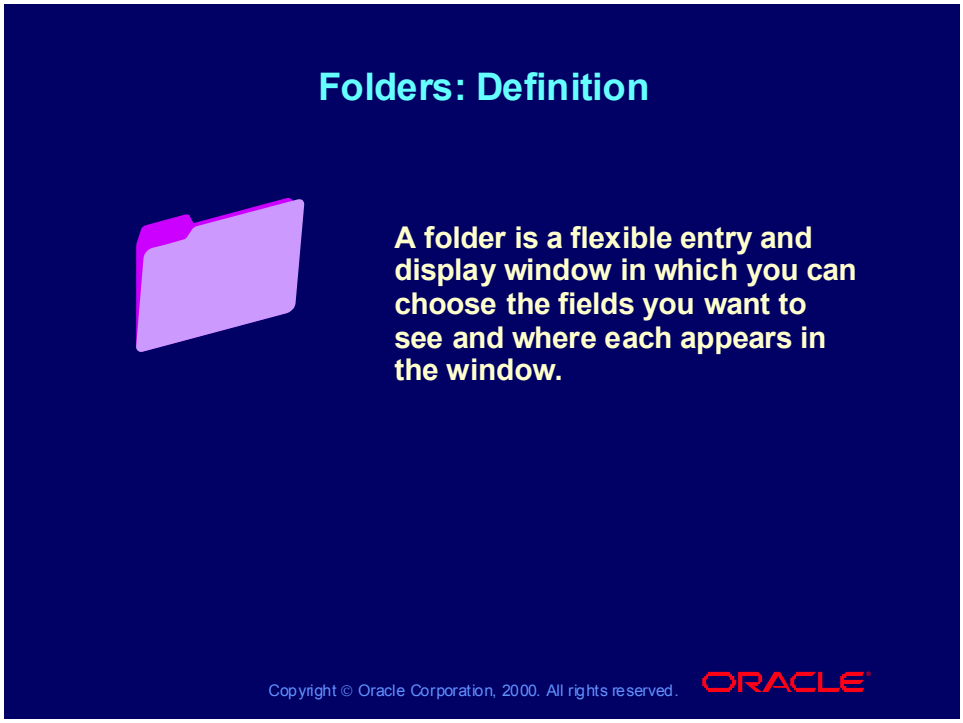
Chapter 11

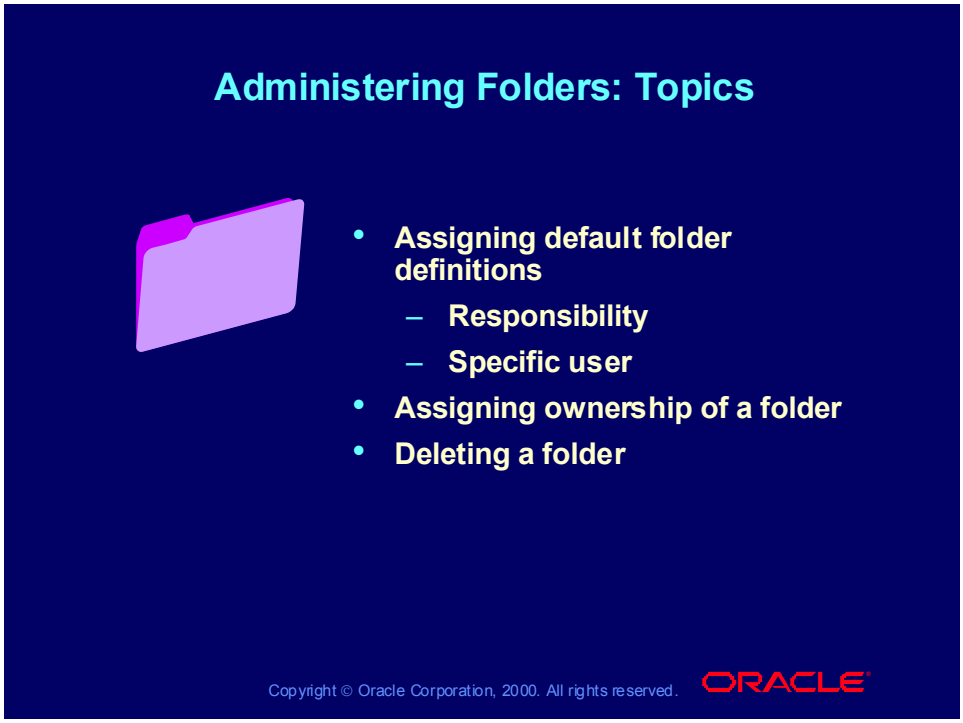
Notations:

(N) = Navigator
(T) = Tab
(I) = Icon
(H) = Hyperlink
(B) = Button
(Help) = Oracle Applications Help System

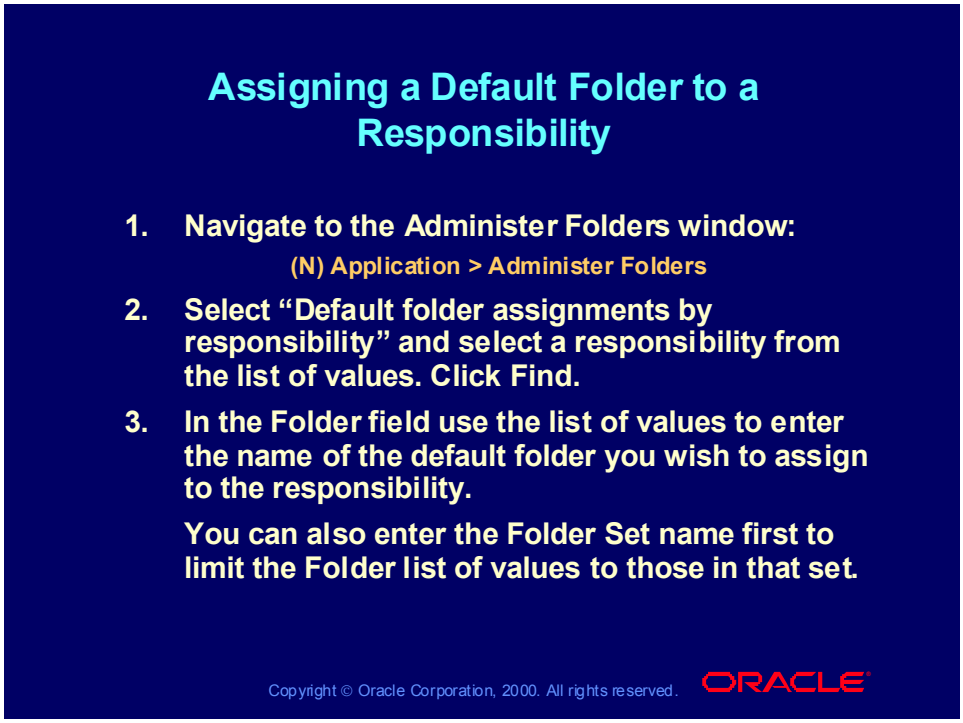


Folders: Definition





Assigning a Default Folder to a Responsibility



Assign a Default Folder to a Responsibility

Note: You must create default folders before you can perform the following functions. For information on creating default folders see

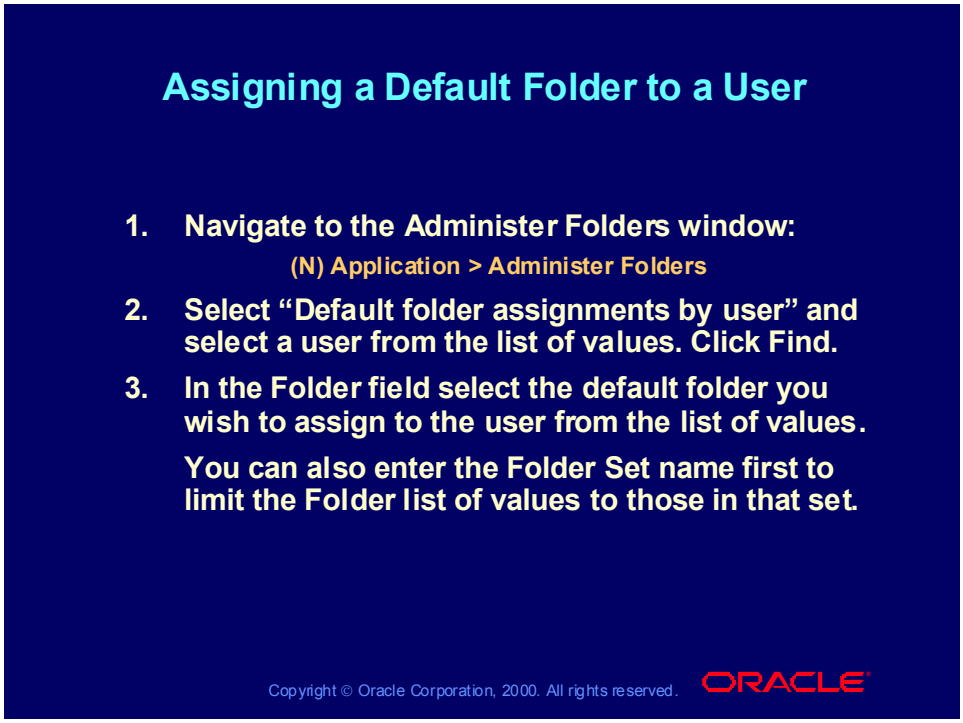
(Help) Oracle Applications User's Guide > Folders > Customizing the Presentation of Data in a Folder.

Note: After you save a default folder definition for a folder set, that folder set no longer appears in the list of values.

Form Fields

Folder Set: Every folder set is associated with a particular folder block, and a user or responsibility can have one default folder within each folder set. The folder set name generally describes the records shown in the block; some blocks may have multiple sets of folders associated with them.

Assigning a Default Folder to a User



Assign a Default Folder to a User

Note: After you save a default folder definition for a folder set, that folder set no longer appears in the list of values.

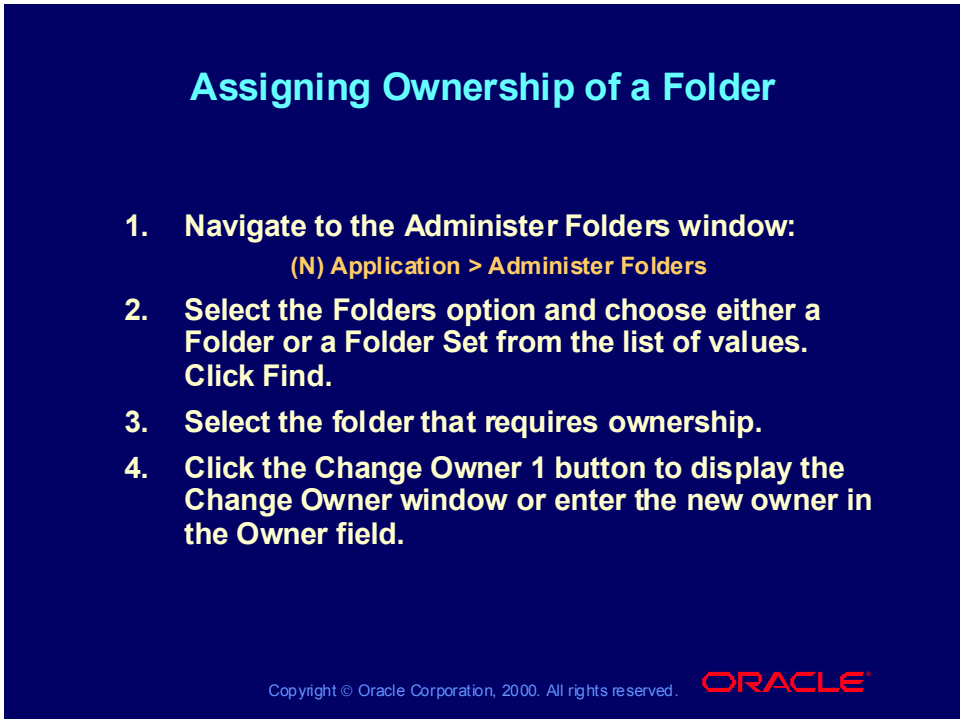
Form Fields

Source Type: Enter either User or Responsibility. Records entered in this window use the source type of User. If one of the current user's responsibilities has default folders defined, the default folders are listed with a source type of Responsibility.

User defaults override Responsibility defaults. You cannot delete Responsibility default folders in this window.

Responsibility: The Responsibility that uses this default folder definition.

Assigning Ownership of a Folder

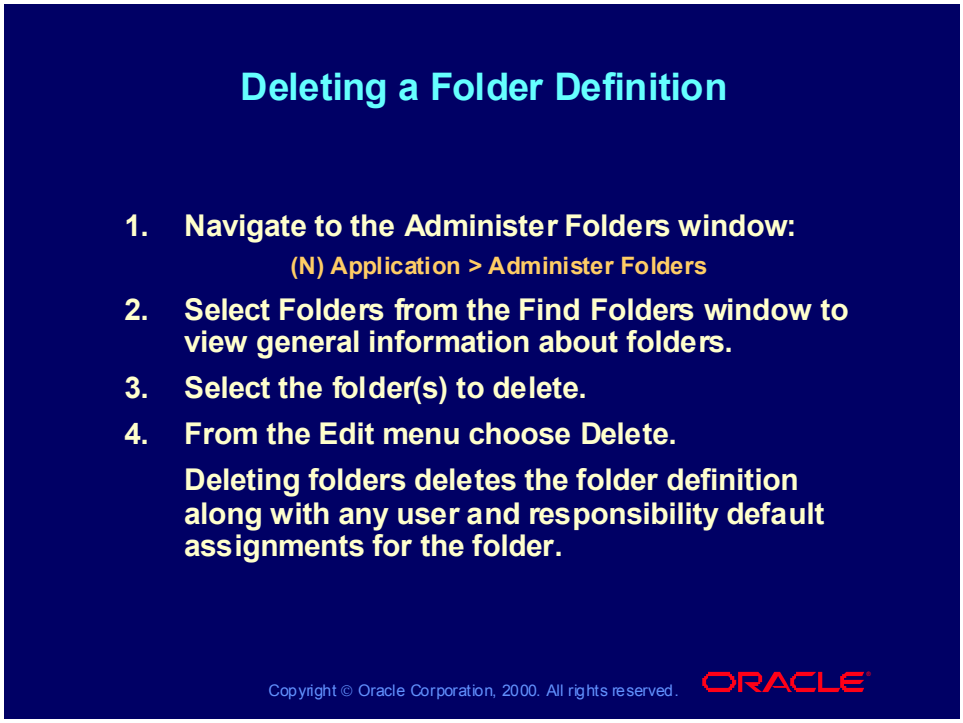


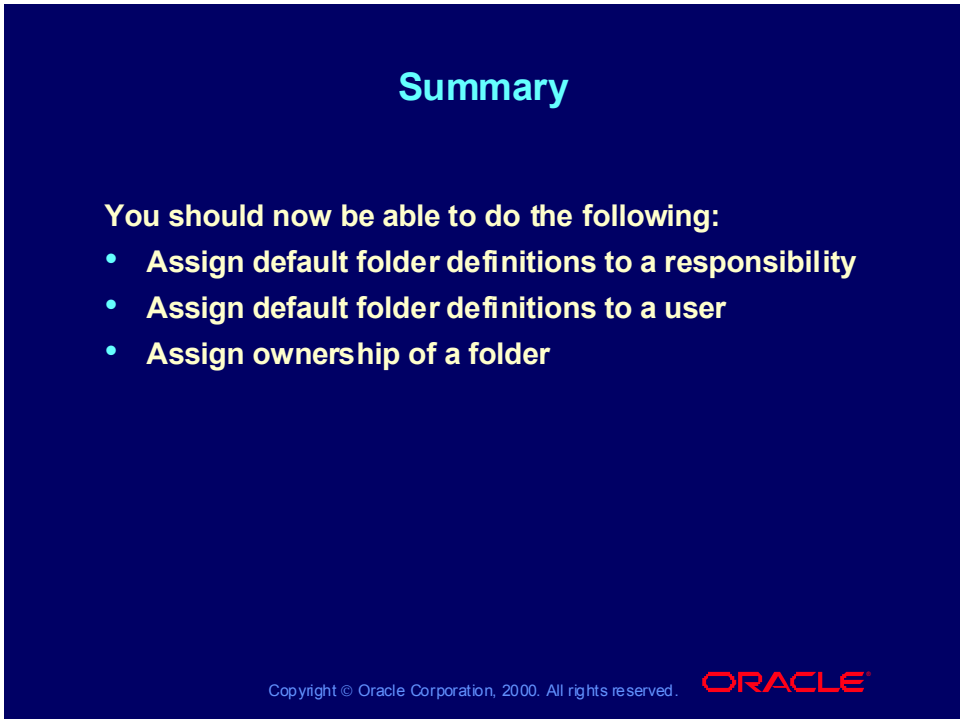
Form Fields

Public: This check box governs the availability of the folder to all users.

Anyone's Default: Indicates whether this folder definition is used as a default by a user or a responsibility. If it is a default definition, use Default Assignments to view the users and responsibilities for which it is the default folder definition.

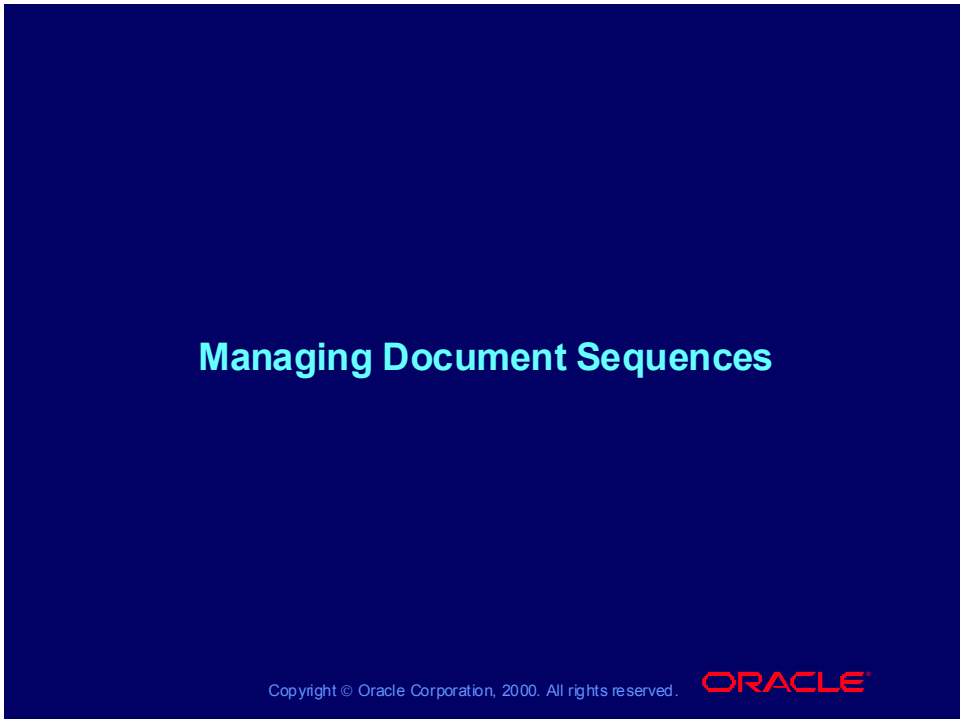
Default Assignments: The users and responsibilities that use this folder definition as a default.





Managing Document Sequences

Chapter 12



Notations:

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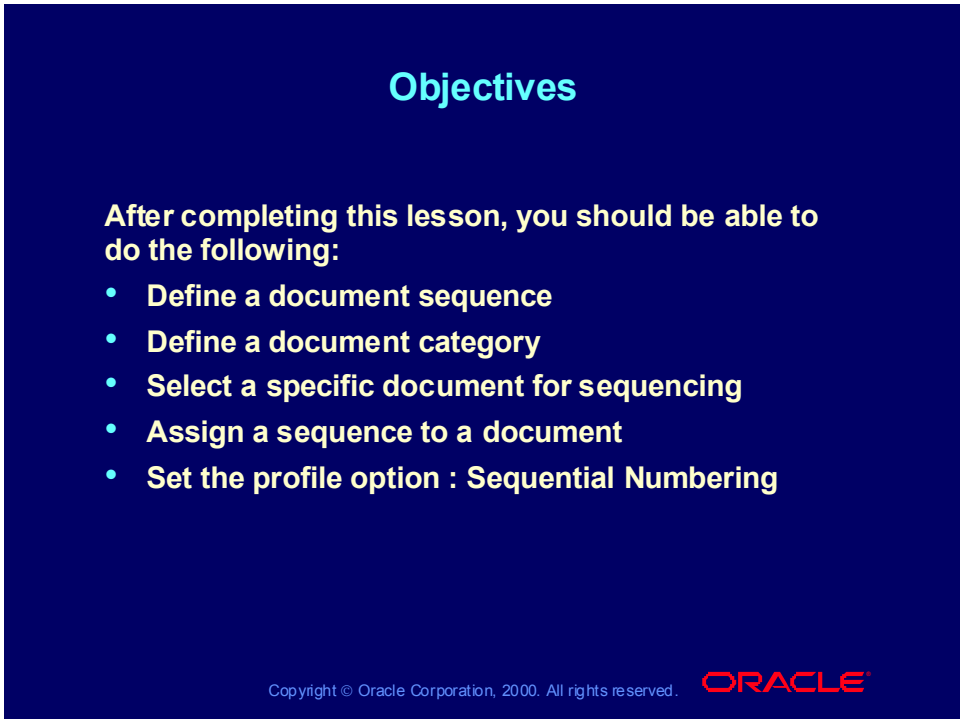
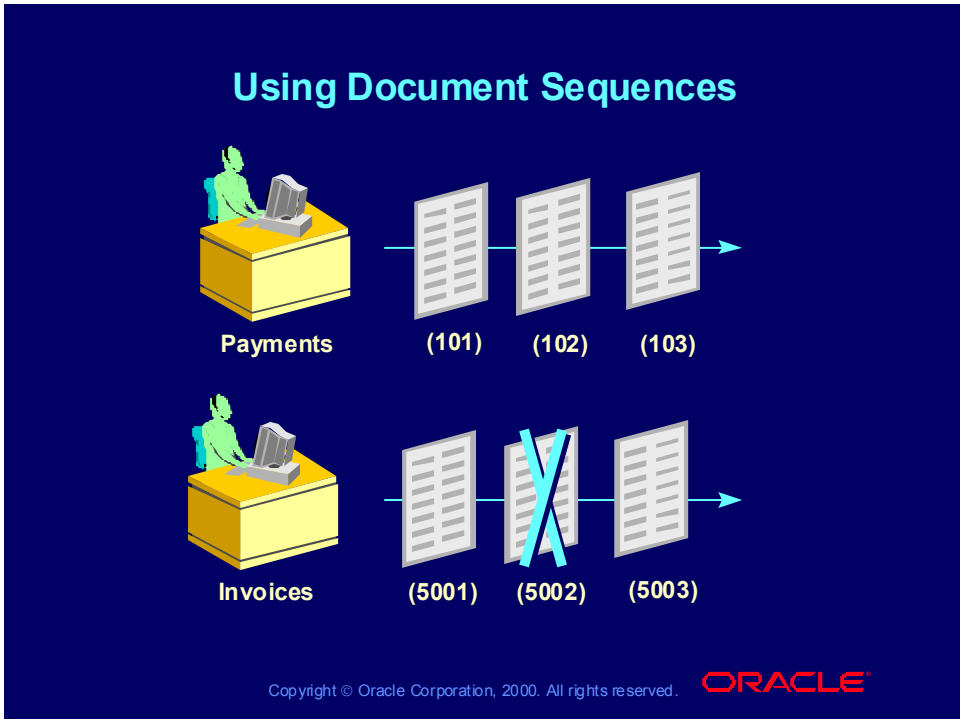
Objectives



Lesson Aim

A document sequence is an internally managed log of transactions against a particular table. Sequences enable complete auditing of all transactions, whether successful or not. This lesson covers creating and implementing document sequences.



Why Use Document Sequences?

Transactions Create Documents

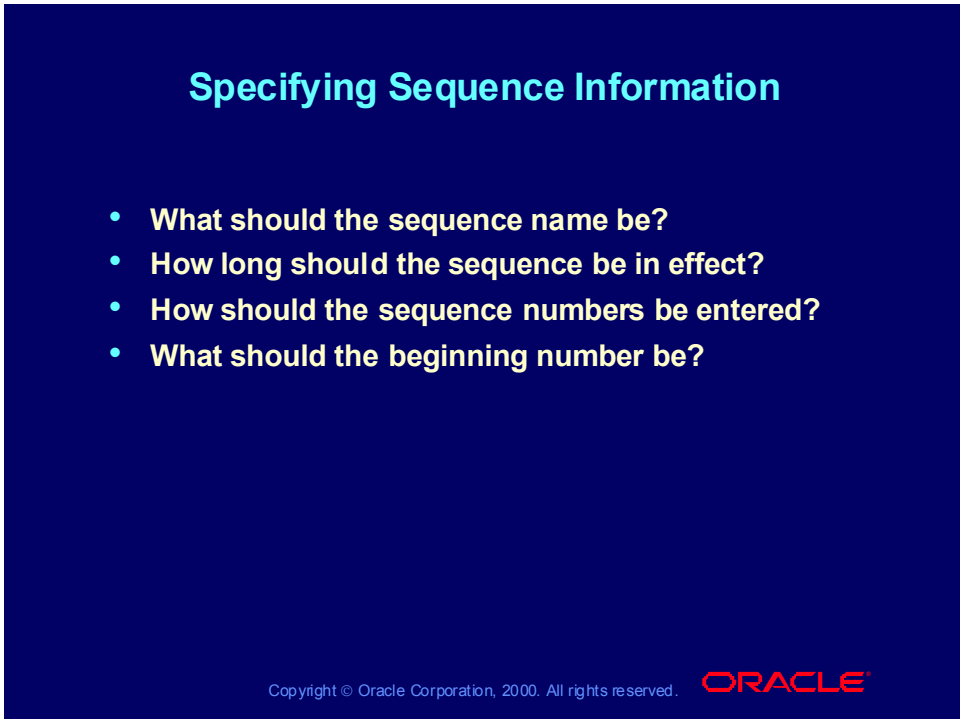
- Whenever you enter a transaction, you create a document. For example, when you enter a payment, you create a payment document. Or when you enter an invoice, you create an invoice document.
- You can assign unique numbers to the documents that you create by using document sequences.

Document Sequences Provide Completeness

- Completeness is proof that every document created by a user's transaction can be accounted for.
- By assigning unique numbers to documents, you can use document sequences to account for all transactions, even those that fail.

Sequences, Categories, and Assignments

- Specify sequence information to determine how documents are numbered.
- Define document categories to group documents together.
- Associate a sequence with a document category to determine which documents the sequence will number.



Using Manual or Automatic Sequence Numbering

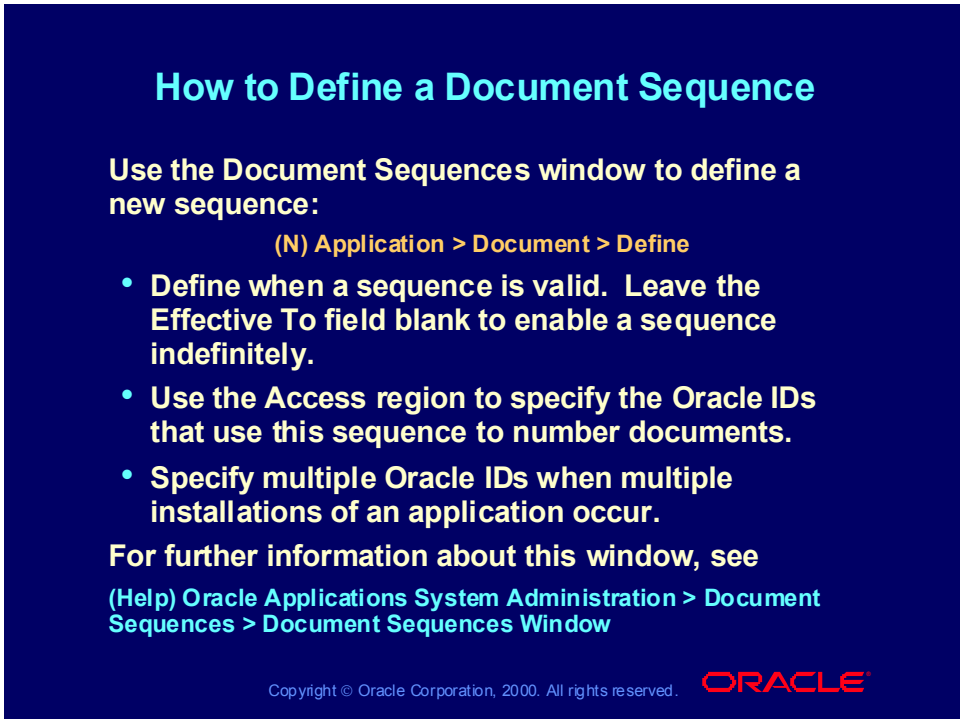
Certain information must be specified when a user creates a document sequence. This includes the document name, its effective dates, and the type of numbering used. The numbers associated with the documents can be entered manually or generated automatically.

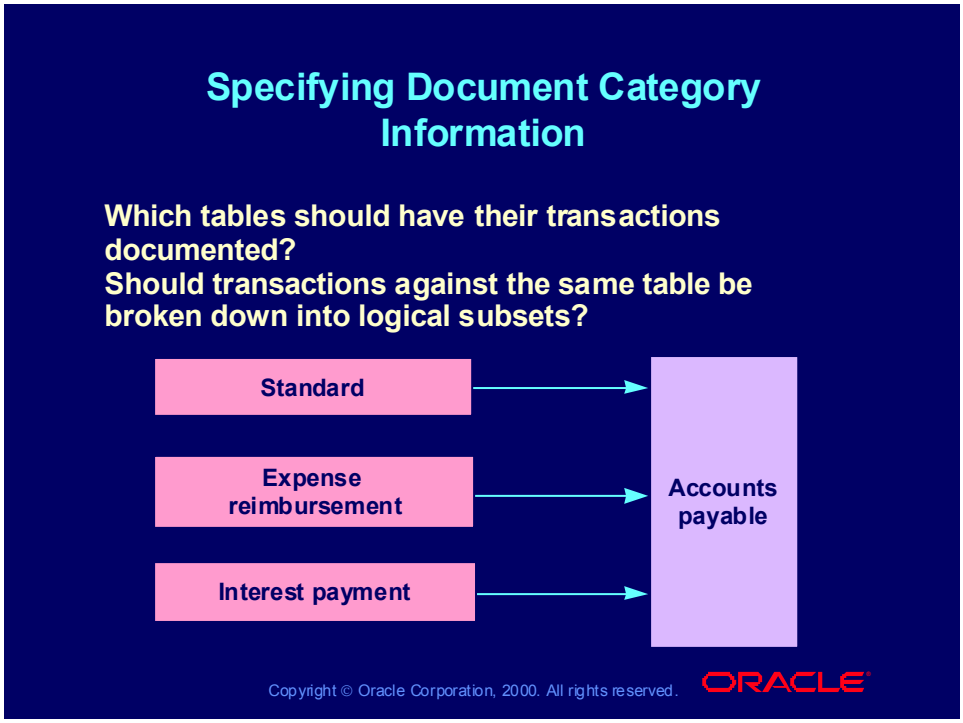
Manual Numbering of Documents

- User assigns a unique number to each document before it is generated.
- Numerical ordering and completeness are not enforced.
- Users may skip or omit numbers when entering the sequence value.

Automatic Numbering of Documents

- Automatic numbering sequentially assigns a unique number to each document as it is generated.
- With automatic numbering, documents are numbered in order by date and time of creation.
- Numbers are in sequential order with no gaps or omissions.
- The user specifies the initial value for the sequence.
- A message can be sent to the user whenever a sequence number is assigned.





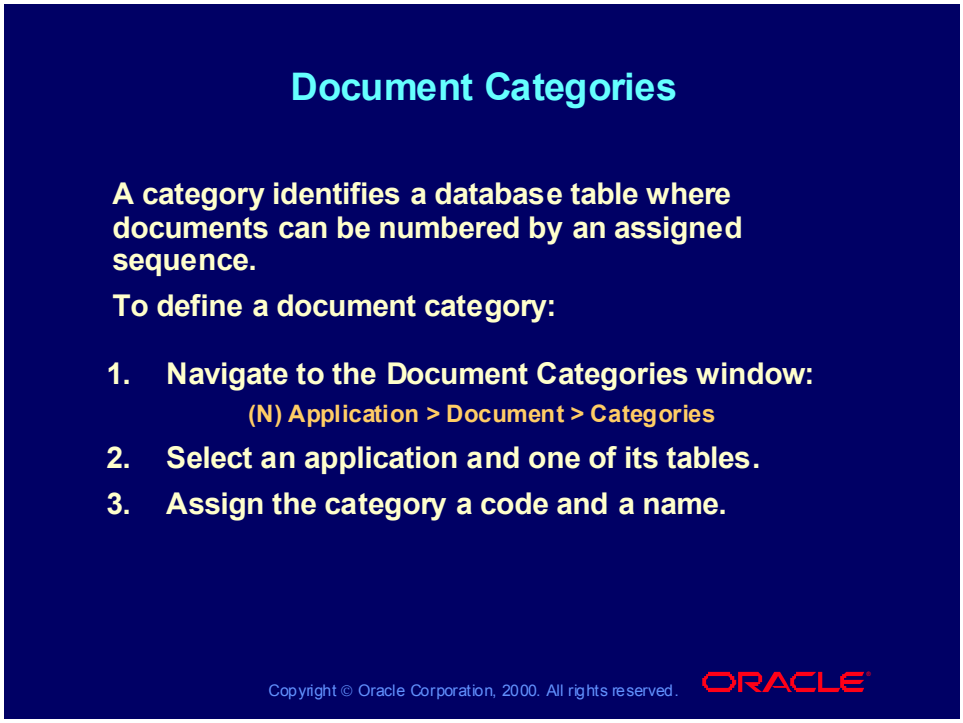
Specifying Document Category Information

Sequences track the transactions against a particular application table. The target table is identified by a document category. In some cases, transactions against a table may need to be classified into subgroups according to some criterion to obtain important information. For example, transactions against the Accounts Payable table may need to be divided according to what type of payment each transaction concerned.

Use categories to divide your documents into logical groups. For example, accounts payable invoices can be divided into the following types:

- Standard invoices
- Expense report invoices
- Prepayment invoices
- Interest invoices
- Credit memo invoices
- Debit memo invoices

Document Categories



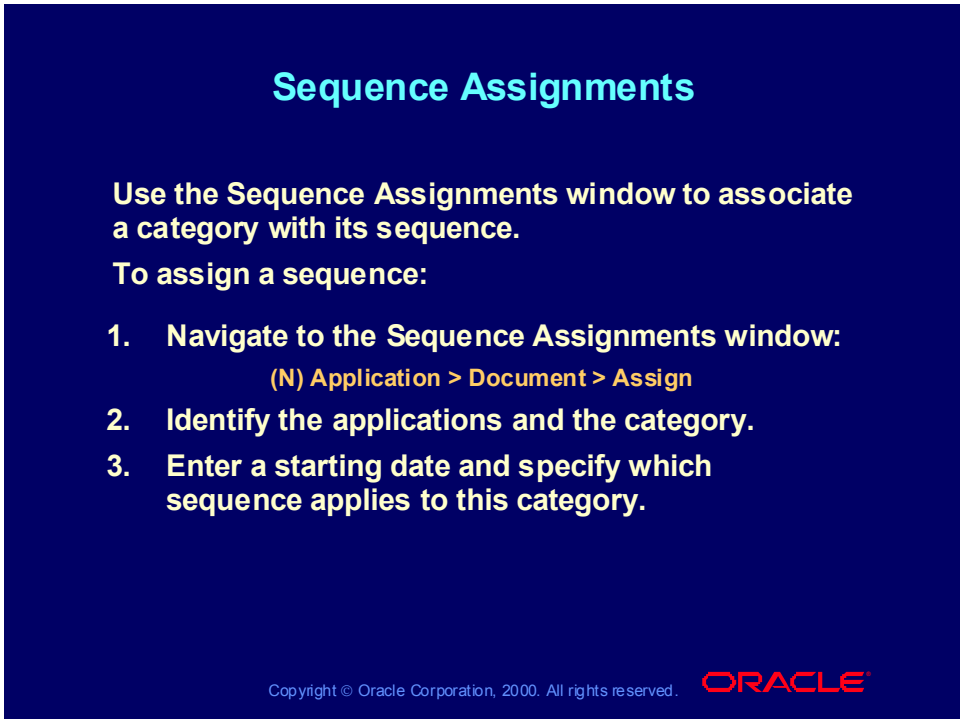
Category Code and Name

- The combination of code and name must be unique within an application.
- Code must be unique. Name does not have to be unique.
- After a category is defined, you cannot change the choice of table.

For a complete explanation of the fields in the Document Categories window, see

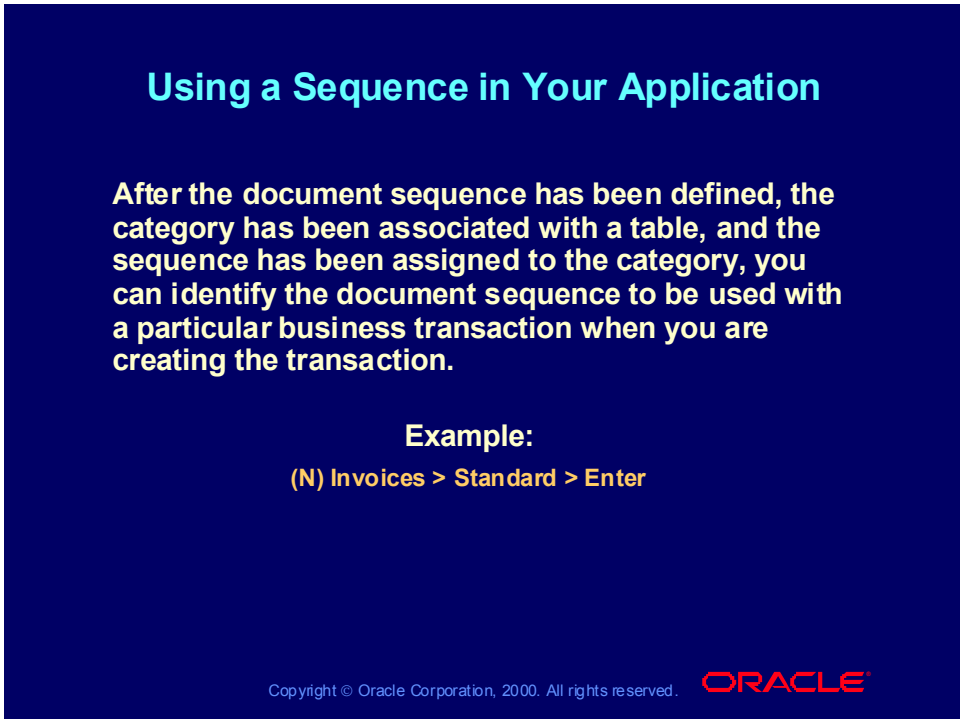
(Help) Applied Technology > Oracle Applications System Administration > Document Sequences > Document Categories Window.

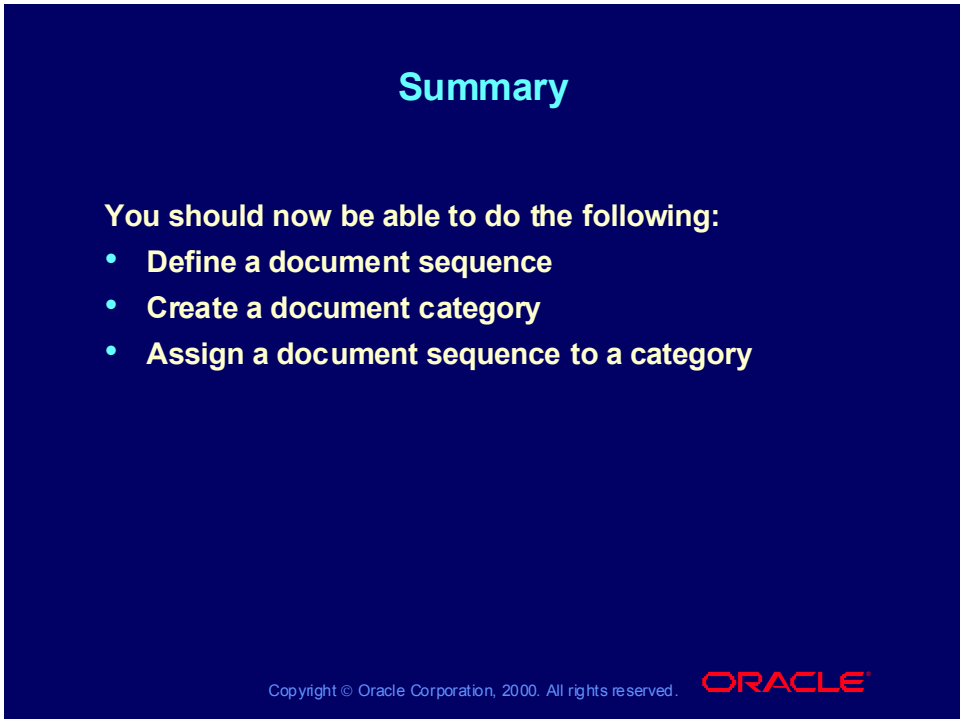
Sequence Assignments



For a complete explanation of the fields in the Document Categories window, see

(Help) Applied Technology > Oracle Applications System Administration > Document Sequences > Sequence Assignments Window.

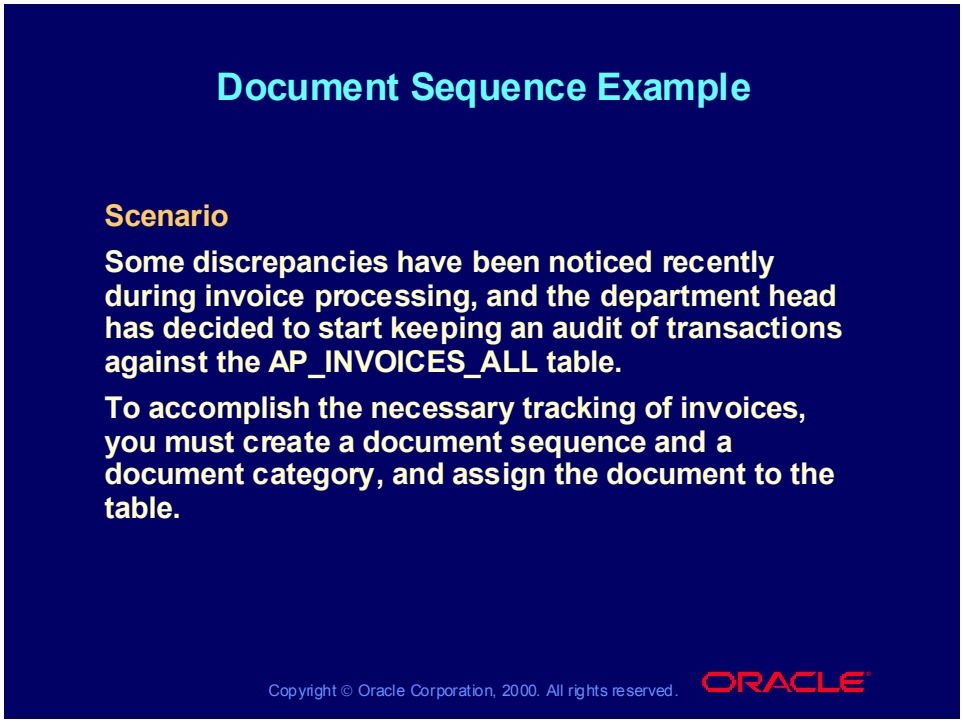




Summary

Document sequences can be used to track all transactions against a table regardless of transaction completion. These sequences can provide an audit trail of transactions against a table. A particular table can have multiple categories defined to it. In this way, different types of transactions can all be tracked.

Document Sequence Example



Create Your Document Sequence

Your first task is to create a sequence to generate the numbers. To do this, you would navigate to the Define Document window: (N) Application > Document > Define and enter data similar to the following:

Name: My_AP_Invoices_Sequence
Application: Application Object Library
From: Today's Date
To: Ending Date or leave blank
Type: Automatic
Message: enabled
Initial Value: 1

Create Your Document Category

After creating your sequence, you would create a document category and associate it with the table whose transactions need to be accounted for. To do this, you would navigate to the Define Categories window: (N) Application > Document > Categories and enter data similar to the following:

Application: Oracle Payables
Code: OPS01
Name: My_AP_Invoices_Category

Description: Payables Invoice Category

Table Name: AP_INVOICES_ALL

Assign Your Sequence and Category

Your last task is to connect your sequence to your category. To do this, you would navigate to the Document Assign window: (N) Application > Document > Assign and enter data similar to the following:

Application: Oracle Payables

Category: My_AP_Invoices_Category

Set of Books: U.S. Operations

Method: Manual

Start Date: Today's Date

End Date: Ending date or leave blank

Sequence: My_AP_Invoices_Sequence