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# Managing Users, Roles, and Domains

This chapter describes how to add users to the Learning Management Server, set user roles and permissions, and partition the Learning Management Server into domains.

Topics include:

- Adding users and groups of users
- Viewing and editing user profiles
- Creating job categories and assigning job categories to users
- Defining new user roles
- Creating and editing access permissions
- Assigning access permissions to roles
- Creating separate LMS domains

**Note:** User administration and access control on the Content Delivery Server is superseded by the same functions on the Learning Management Server. As long as Students access Docent courses through the Learning Management Server, you do not need to worry about user administration on the Content Delivery Server.

## Managing Users

LMS Administrators have the ability to manage users of the server. This includes adding users, changing user profiles, and so on.

A user is anyone who uses the Learning Management System to perform a task. Users can be assigned roles such as Administrator, Student, Instructor, Manager, or Training Coordinator.

### Adding New Users

When you install the Learning Management Server, a default logon is defined with access to all privileges. (For more information, see “Logging On,” on page 2-2.) Use this logon to create user names and passwords for others to access the Learning Management Server.

**Note:** Each user should have his or her own logon and password. Users sharing the same logon and password cannot access the Learning Management Server at the same time.

To add a new user:

- 1 Log on to the Learning Management Server.
- 2 Open the Administrator menu and click Users > Add New.

The Add User page appears.

**Note:** In a multiple domain environment, you must select a domain for the user you are adding. (For more information, see “Working with Domains,” on page 3-23.)

**3** Enter the user profile as required. This information includes:

Table 3-1 User Profile

Field	Description	Status
First Name	First name of the user	Required
Last Name	Last name of the user	Required
Email	Unique email address for the user. This sets the user's logon for the Learning Management Server.	Required
Password	Docent password assigned to the user	Required
Password Verify	A verification of the Docent password assigned to the user	Required
System ID	Unique number used to identify the user (for example, an employee ID number). This ID can be used instead of an email address for a user logon.	Optional
Manager	Name of the user's Manager. Selecting a Manager indicates the user is a member of the Manager's group.	Optional

Table 3-1 User Profile (Continued)

Field	Description	Status
Job Category	Job category assigned to the user. For more information, see "Adding Job Categories," on page 3-10.	Optional
Roles	Role(s) assigned to the user. By default, all users are assigned the Student role. You can assign more than one role to a user. The Student role is required to enroll in classes.	Required
Preferred Domain	In a multiple domain environment, you can specify a preferred domain for the user. For more information, see "Setting Preferred Domains," on page 3-43.	Required

**4** When you finish adding the user profile, click Save.

In addition to registering individual users:

- You can also add several users at the same time. For more information, see "Adding Several Users," on page 3-7.
- You can modify the Reference Implementation to enable users to self register. For more information, see Chapter 10.
- You can import user names and profiles from external applications such as a Human Resources system. For more information, see Chapter 12.

**Note:** When you add a new Instructor to the Learning Management System, you must also add the Instructor as an LMS resource. See Chapter 5 for more information.

## Listing Users and Viewing User Profiles

To list users:

- 1 Open the Administrator menu and click Users > List Users.

A list of users appears. All users who have a logon and password on the Learning Management Server are included in the list.

Click to display a user profile.

List Users		
Showing 1-12		
Name	Email	Job Category
Cohen, Ilan	ilanc@test.docent.com	Senior Software Engineer
Dellinger, Richard	richardd@test.docent.com	Vice President of Engineering
Diller, Brad	bdiller@test.docent.com	Senior Software Engineer
docentsetup, docentsetup	docentsetup	
Dong, Diana	ddong@test.docent.com	
Ellett, Dave	dellett@test.docent.com	
Kaminsky, Aaron	akaminsky@test.docent.com	
Kelly, Lisa	lkelly@docent.com	
Lee, Darren	darrenl@test.docent.com	
Mena-Mendoza, Gonzalo	gonzalom@test.docent.com	
Sambasivam, Meena	msambasivam@test.docent.com	
Ton, Ken	kton@test.docent.com	
Showing 1-12		

Edit User	
User Details	
First Name:	Ben
Last Name:	Smith
Email:	ben@company.com
Password:	***
Verify Password:	***
System ID:	
Job Category:	Software Development Engineer
Manager:	Carver, George W.
Roles:	<ul style="list-style-type: none"> <li>Anonymous</li> <li>Instructor</li> <li>Manager</li> <li><b>Student</b></li> <li>System Administrator</li> </ul>
Preferred Domain:	Global
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

- 2 To display detailed information about a user, click a name in the Name column.

To change information about a user, enter the new information as desired and click Save.

You cannot delete users from the Learning Management Server, but you can change the user's password or remove the user's Student role to prevent enrollment in courses.

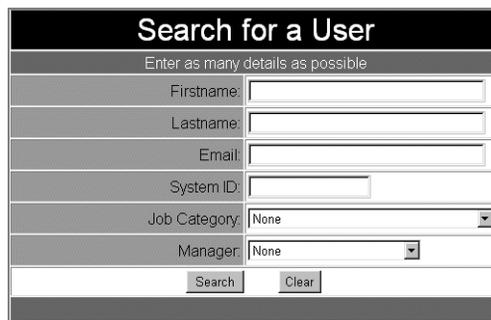
### Searching for Users

The Learning Management Server enables you to search for users based on a number of different search criteria.

To search for users:

- 1 Open the Administrator menu and click Users > Search.

A search page appears.



Search for a User	
Enter as many details as possible	
Firstname:	<input type="text"/>
Lastname:	<input type="text"/>
Email:	<input type="text"/>
System ID:	<input type="text"/>
Job Category:	None
Manager:	None
<input type="button" value="Search"/> <input type="button" value="Clear"/>	

- 2 Enter search criteria for the users you want to find.

For example, you can search for a specific user by specifying a full user name or System ID. Or, you can search for all users assigned to a given Manager or all users in a given job category.

- 3 Click Search.

A list of users who match the search criteria you specified appears. Each user's name, email address, and job category appear on this page.

**Search for a User**  
Enter as many details as possible

Firstname:

Lastname:

Email:

System ID:

Job Category:

Manager:

**Search Results**  
Showing 1-2

Name	Email	Job Category
Carver, George W.	gocarver@test.docent.com	Vice President
Kramer, Cosmo	ckramer@test.docent.com	Vice President

Showing 1-2

If no users are found that match the search criteria you specified, a message appears.

## Adding Several Users

To add several users at the same time:

- 1 Open the Administrator menu and click Users > Add New Batch.

The Batch Mode Administration page appears.

Use this page to enter a profile for each user you want to add.

- 2 To enter user profiles click in the User Definition area and start typing.

**Add a new batch of users**

User Data

User definition (one per line)

**Example:** FirstName::John|LastName::Smith|Password::js|Email::jsmith@company.com|SystemID::1111|JobCategoryID::ENGR|managerID::mgrName@company.com|

Save

Settings for new users

Roles: Anonymous  
Instructor  
Manager  
Student  
System Administrator

Preferred Domain: Global

User profiles should have this format.

Use these guidelines for entering user profiles:

- Insert two colons (::) after a variable
- Insert user profile information after the colons
- Insert a pipe character (|) after the user profile
- Press the Enter key to separate user profiles

**Note:** If desired, you can change the format for entering user profiles. For more information, see Chapter 10.

Table 3-2 Batch Mode Syntax

Variable	Example User Profile	Delimiter
FirstName::	Michael	
LastName::	Crawford	
Password::	mpc123	
Email::	michael@docent.com	
SystemID::	1234	
JobCategoryID::	SysAdmin	
managerID::	chris@docent.com	

**Note:** Make sure you press Enter after each user definition.

- 3 Select a role for the users you are adding.

By default, users are assigned the Student role. You can assign more than one role.

**Note:** In a multiple domain environment, you can also set a preferred domain for the users you are adding. For more information, see “Working with Domains,” on page 3-23.

- 4 When you finish adding user profiles, click Save.

## Managing Job Categories

When you add users, you can assign each user a job category. Although not required, job categories serve as a convenient method for organizing users who perform similar jobs (for example, Senior Software Engineer, Accounting Clerk, and Marketing Communicator).

Job categories are useful when you want to send an email message to a collection of users or if you want to search for all users with a given job.

You can create as many job categories as desired. You can assign any number of users to a category by entering that category in their user profiles.

**Note:** In a multiple domain environment, you can create and maintain separate job categories for each domain on the Learning Management Server. For more information about domains, see “Working with Domains,” on page 3-23.

### Adding Job Categories

To add a job category:

- 1 Open the Administrator menu and click Job Categories > Add New.

The Add Job Category page appears.



- 2 Enter a new job category.

Information used to define a job category includes:

Table 3-3 Job Category Information

Field	Description	Status
Code	Code identifier for the job category	Required
Title	Title for the job category	Required
Description	Text description for the job category	Optional

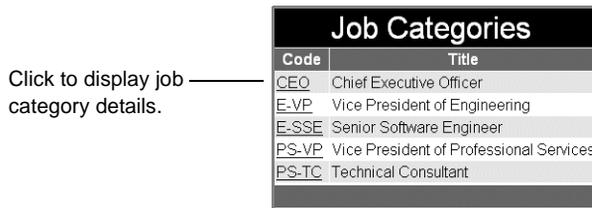
- 3 When you finish defining the job category, click Save.

## Listing and Editing Job Categories

To list job categories:

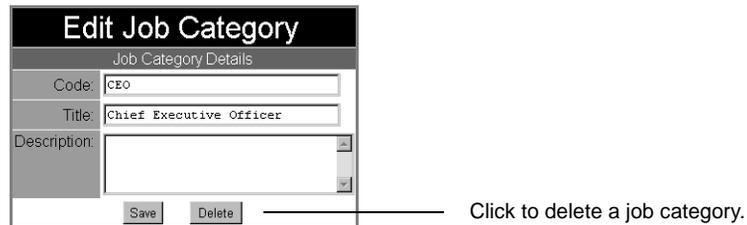
- 1 Open the Administrator menu and click Job Categories > List Job Categories.

A list of job categories appears. All job categories defined for the Learning Management Server are included in the list.



- 2 To display detailed information about a job category, click the Job Code.

A description of the category appears.



- To edit the job category, enter new information as desired and click Save.
- To delete the job category, click Delete.

**Note:** You cannot delete a job category if the category is still assigned to one or more users. Reassign the users to another category, then delete the category.

# Managing Roles and Permissions

## About Roles

Docent Enterprise enables you to create a set of roles you can use to control system security. Roles determine which users have access to which system functions. For example, users assigned to the Training Coordinator role are able to change entries in the catalog, but users assigned to the Student role cannot.

Roles are defined by the LMS Administrator. Default roles included in the Reference Implementation are Administrator, Manager, Student, Instructor, Training Coordinator, and Anonymous user. Administrators can create new roles and assign roles to other users of the system.

Once roles are defined, the LMS Administrator can assign permissions to the roles. Permissions control access to specific system functions. In essence, a role is a collection of permissions with a name assigned to it.

**Note:** In a multiple domain environment, separate roles and permissions are maintained for each domain on the Learning Management Server. For more information about domains, see “Working with Domains,” on page 3-23.

When a user is added to the Learning Management Server, a role is assigned. Once the role is assigned, users have access to all the permissions associated with the role. (For more information, see “About Permissions,” on page 3-15.)

Typically, all users have a Student role, plus additional roles if needed.

		Roles			
		Student	Administrator	Manager	Training Coordinator
Users	Ann	X	X		X
	Bob	X		X	
	Carlos	X	X	X	X
	Lei-Leung	X			

You can assign one or more roles to each user. Once a role is assigned, a user has access to all permissions associated with that role.

		Permissions			
		Permission 1	Permission 2	Permission 3	Permission 4
Roles	Administrator	X	X	X	X
	Training Coordinator	X		X	
	Manager		X		
	Student				X

You can assign as many permissions as desired to each role.

## Adding Roles

To add a new role:

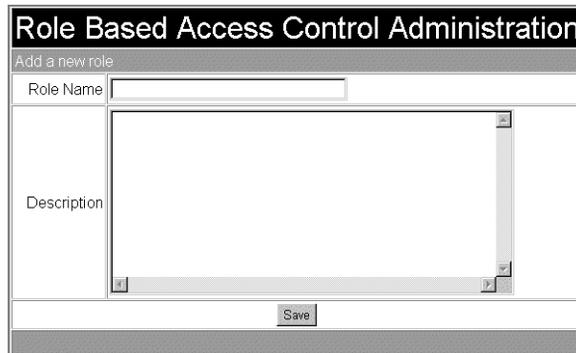
- 1 Open the Administrator menu and click Roles and Permissions > Roles.  
A page appears with a list of existing roles.



**Note:** In a multiple domain environment, you must select the domain you want to add the role to. (For more information, see “Working with Domains,” on page 3-23.)

- 2 Click Add New Role.

An Add New Role page appears.

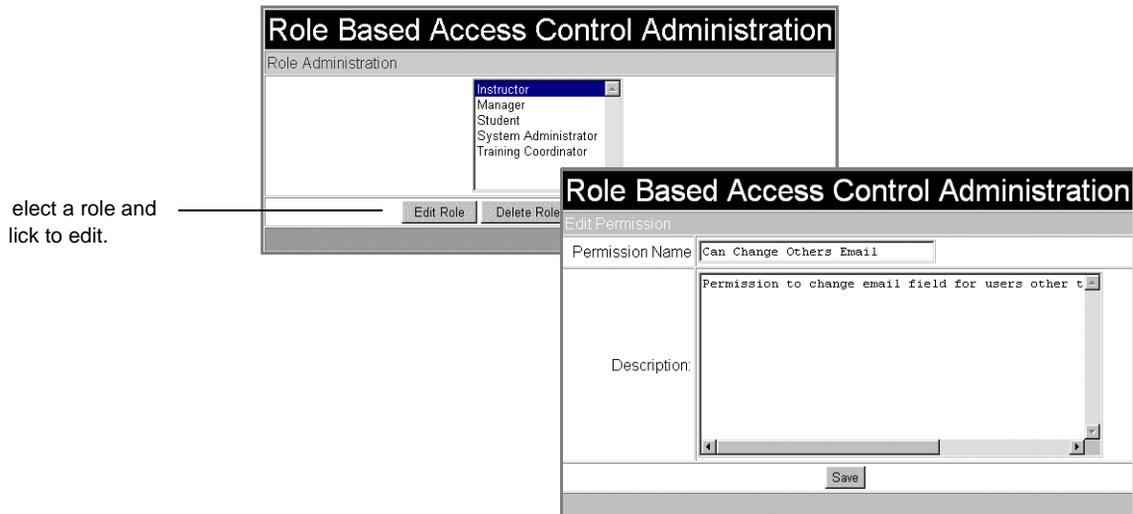


- 3 Enter a short name and description for the role.
- 4 Click Save.

## Editing Roles

To edit a role:

- 1 Open the Administrator menu and click Roles and Permissions > Roles. The Role Based Access Control Administration page appears.
- 2 Select the role you want to edit and click Edit Role.



- 3 Change the role name and definition as desired, then click Save.

**Note:** To delete a role, select a role and click Delete Role. You cannot delete a role if it is assigned to a user.

## About Permissions

A permission enables access to files and functions in the Learning Management Server. You can use existing permissions and associate them with a role or add new permissions. See Table 3-4 and Table 3-5 for examples of permissions defined in the Reference Implementation.

Once a permission is created, you can associate it with a role. For example, you can grant all Instructors permission to view Student progress reports and change Student scores.

The names and functions of permissions on the Learning Management Server are based on strings specified within an App file. For example, a given App file might check the permission “Can Change Own Email” and allow users who have this permission to change their email address in their user profile. You can set permissions to enable changes to email addresses, user names and passwords, job category assignments, Student scores, and so on.

Table 3-4 Permission Strings

<b>Permission Name</b>	<b>Description</b>
Can Change Others Domains	Permission to change the domain field for users other than yourself
Can Change Others Email	Permission to change the email field for users other than yourself
Can Change Others Job Category	Permission to change the Job Category field for users other than yourself
Can Change Others Manager	Permission to change the Manager field for users other than yourself
Can Change Others Name	Permission to change the first and last name fields for users other than yourself
Can Change Others Password	Permission to change the password fields for users other than yourself
Can Change Others Roles	Permission to change the role assignments for users other than yourself
Can Change Others SSID	Permission to change the SSID field for users other than yourself
Can Change Own Email	Permission to change the email field on one's own user record (change your own email address)
Can Change Own Name	Permission to change the first name and last name in your user profile (change your own name)

Permissions also control navigation to specific App files and directories. For example, `admin/*` is a permission that gives access to all App files in the LMS `admin` directory. These permissions control the buttons and menus you see on the LMS home page.

Table 3-5 Permissions for File and Directory Access

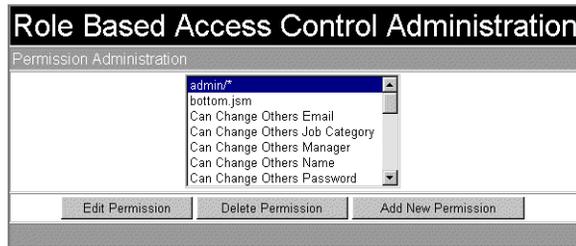
Permission String	Description
<code>admin/*</code>	Permission to access all files in the <code>admin</code> directory. This directory contains App files used only by Administrators.
<code>bottom.jsm</code>	Permission to access <code>bottom.jsm</code> , which is the universal bottom of page
<code>catalog/*</code>	Permission to access all files in the <code>catalog</code> directory. This directory contains App files related to the catalog. For example, App files for certificate programs are located here.
<code>error_list.jsm</code>	Permission to access <code>error_list.jsm</code> . This file contains LMS error messages.
<code>instructor/*</code>	Permission to access all files in the <code>instructor</code> directory. This directory contains App files used only by Instructors.
<code>lib/*</code>	Permission to access general-purpose JavaScript routines in the <code>lib</code> directory. This directory contains App files that are incorporated with various other pages. For example, to display the date or generate email lists.
<code>manager/*</code>	Permission to access all files in the <code>manager</code> directory. This directory contains App files used only by Managers.
<code>reports/*</code>	Permission to use all reports in the <code>reports</code> directory
<code>reports/admin/*</code>	Permission to access all files in the <code>admin</code> subdirectory of the <code>reports</code> directory. This subdirectory contains App files for reports important to Administrators.
<code>reports/enroll/*</code>	Permission to access all files in the <code>enroll</code> subdirectory of the <code>reports</code> directory. This subdirectory contains App files for reports dealing with enrollment.
<code>reports/manager/*</code>	Permission to access all files in the <code>manager</code> subdirectory of the <code>reports</code> directory. This subdirectory contains App files for reports important to Managers.
<code>reports/menu.jsm</code>	Permission to access <code>menu.jsm</code> in the <code>reports</code> directory, which is the Reports menu
<code>reports/results/*</code>	Permission to access all files in the <code>admin</code> subdirectory of the <code>reports</code> directory. This subdirectory contains App files for reports that include course results.
<code>reports/student/*</code>	Permission to access all files in the <code>student</code> subdirectory of the <code>reports</code> directory. This subdirectory contains App files for reports important to Students.
<code>top.jsm</code>	Permission to access <code>top.jsm</code> , which is the universal top of page
<code>training_coOrdinator/*</code>	Permission to access all files in the <code>training_coOrdinator</code> directory. This directory contains App files used only by Training Coordinators.

## Adding Permissions

To add a permission:

- 1 Open the Administrator menu and click Roles and Permissions > Permissions.

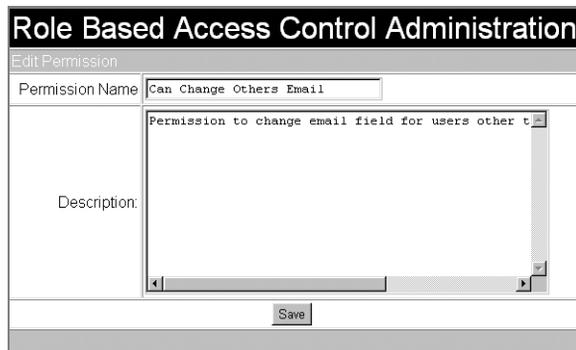
A page appear with a list of existing permissions.



**Note:** In a multiple domain environment, you must select the domain you want to add the permission to. (For more information, see “Working with Domains,” on page 3-23.)

- 2 Click Add New Permission.

An Add New Permission page appears.



- 3 Enter a name and description for the permission.

Permissions you add must be defined in an App file. For example:

```
<DOCENT>
  if (user.hasPermission(PERM.CAN_CHANGE_OTHERS_EMAIL)) {
</DOCENT>
  <input type=text size=50 maxlength=64 name=email
value='\usr_rs.colValue('email')\'>
<DOCENT>
  } else {
</DOCENT>
  <input type=hidden name=email value='\usr_rs.colValue('email')\'
'\usr_rs.colValue('email')\'
<DOCENT>
  }
</DOCENT>
</td>
</tr>
```

In this example, the App file does the following:

- Checks to see if the user accessing the file has the “Can Change Others Email” permission. (PERM.CAN\_CHANGE\_OTHERS\_EMAIL is a variable that contains the string, “Can Change Others Email.”)
- If the user has this permission, the email field displayed by the App file is editable.
- If the user does not have this permission, the email field is hidden.

Permission can also include access to App files and directories. For example:

```
<path>/*
<path>/<file>.jsm
```

where `<path>` is the directory where the file resides, `<file>` is the name of a specific App file, and `*` is a wildcard character that grants permission to all directories or files that appear below the current `<path>`.

- 4 After you enter a name and description for the permission, click Save.

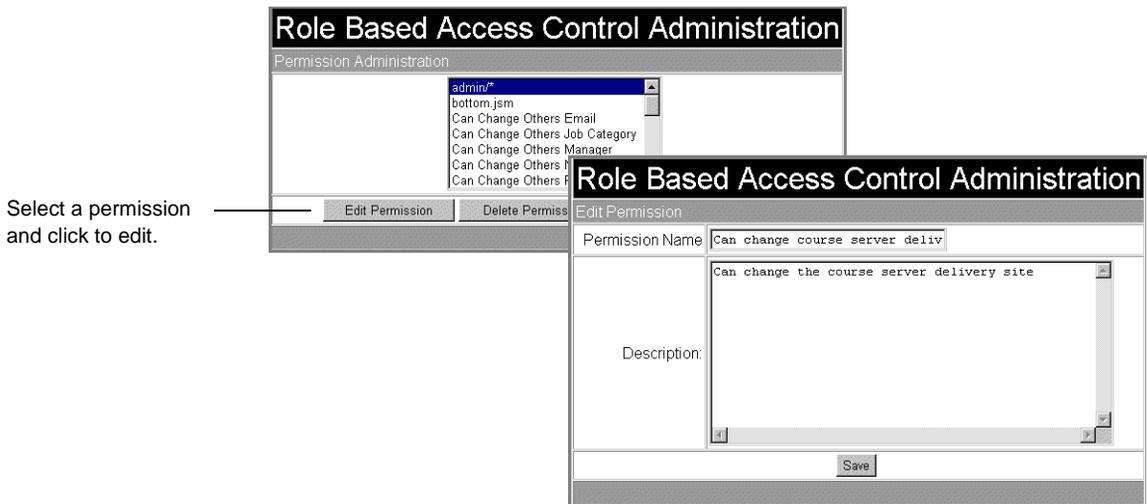
## Editing Permissions

To edit a permission:

- 1 Open the Administrator menu and click Roles and Permissions > Permissions.

A list of permissions defined for the Learning Management Server appears.

- 2 Select the permission you want to edit and click Edit Permission.



- 3 Change the permission as desired, then click Save.

**Note:** To delete a permission, select a permission and click Delete Permission. A message appears asking you to confirm the deletion.

## Associating Permissions with Roles

After you define roles and permissions, you can associate a collection of permissions with a role.

To associate permissions with a role:

- 1 Open the Administrator menu and click Roles and Permissions > Associations.

A list of roles appears.

- 2 Select the role you want to assign permissions to.
- 3 Click Edit Permissions.

A list of all permissions appears.

The screenshot shows two overlapping windows from the 'Role Based Access Control Administration' application. The background window is titled 'Role-Permission Associations Administration' and has a dropdown menu with the following options: Instructional Designer (selected), Instructor, Manager, Student, System Administrator, and Training Coordinator. Below the dropdown are two buttons: 'Edit Permissions for Role' and 'Show All Roles'. The foreground window is titled 'Role Based Access Control Administration' and is titled 'Edit Role-Permission Associations - For Role Instructional Designer'. It contains a table with the following data:

Permission String	Description	Status
top.jsm	The contents of this file are "pasted" onto the top of virtually every app other file	<input type="radio"/> Granted <input type="radio"/> Revoked <input checked="" type="radio"/> No Association
bottom.jsm	The contents of this file are "pasted" onto the bottom of virtually every other app file	<input type="radio"/> Granted <input type="radio"/> Revoked <input checked="" type="radio"/> No Association
error_list.jsm	This file is displayed when an error occurs	<input type="radio"/> Granted <input type="radio"/> Revoked <input checked="" type="radio"/> No Association
frameset.jsm	This file sets the frame set or shows only the main catalog depending on configuration.	<input type="radio"/> Granted <input type="radio"/> Revoked <input checked="" type="radio"/> No Association
menubar.jsm	This file contains the left hand menu bar when using frames.	<input type="radio"/> Granted <input type="radio"/> Revoked <input checked="" type="radio"/> No Association

Each permission has a status associated with it. Permission status includes:

- **Granted** means the permission is enabled for the role.
- **Revoked** means the permission is disabled for the role.
- **No Association** means the permission is neither enabled or disabled. In other words, the permission is not associated with the role. This setting is useful for users who have more than one role assigned. (See “Using Permissions with More Than One Role,” on page 3-22 for details.)

**4** Set the permission status.

You can set the status for as many permissions as desired.

**5** When you finish setting permission status, click Save.

### **Using Permissions with More Than One Role**

Permissions can be associated with more than one role. For example, permission to change scores can be **Granted** for Instructors and Training Coordinators and **Revoked** for Students.

If a user has more than one role assigned and the roles have conflicting permissions, the **Revoked** permission takes precedence. For example, a user who has both **Administrator** and **Student** roles cannot change scores if the permission is set to **Revoked** for the **Student** role, but **Granted** for the **Administrator** role.

To prevent this type of conflict, you can use the **No Association** option for the permission. In the previous example, setting **No Association** for the permission in the **Student** role and **Granted** for the permission in the **Administrator** role keeps Students from having the permission but enables it for Administrators.

## Viewing All Roles and Permissions

To view all roles and permissions:

- 1 Open the Administrator menu and click Roles and Permissions > Associations.

A list of roles appears.

- 2 Click Show All Roles and Permissions.

A list of all permissions granted for each LMS role appears. Only the Granted permissions are shown for the role.

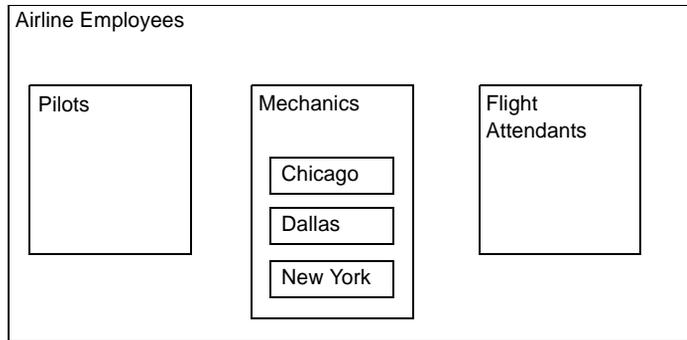
The screenshot shows the 'Role Based Access Control Administration' interface. On the left, a dropdown menu lists roles: Instructional Designer, Instructor, Manager, Student, System Administrator, and Training Coordinator. The main window displays a table titled 'Show All Role-Permission Associations' with the following data:

Role Name	Permission	Description	Grant or Revoke
Instructor	bottom.jsp	The contents of this file are "pasted" onto the bottom of virtually every other app file	Granted
	error_list.jsp	This file is displayed when an error occurs	Granted
	instructor/*	Instructor related app files	Granted
	lib/*	A library of general purpose javascript routines	Granted
	reports/enroll/*	Enrollment reports	Granted
	reports/menu.jsp	The reports menu	Granted
	reports/results/*	Student performance related reports	Granted
	top.jsp	The contents of this file are "pasted" onto the top of virtually every app other file	Granted
Manager	bottom.jsp	The contents of this file are "pasted" onto the bottom of virtually every other app file	Granted

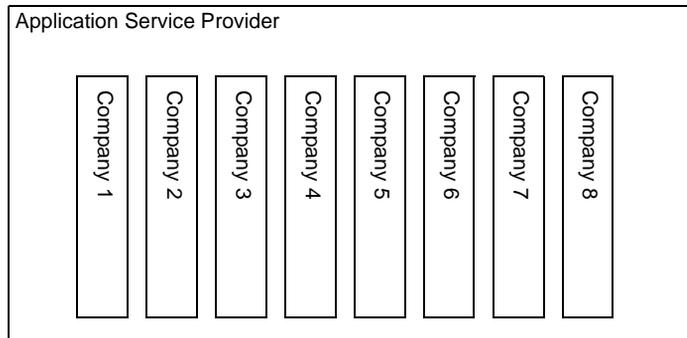
## Working with Domains

If desired, you can create partitioned regions, called domains, on the Learning Management Server. Domains are useful for large corporations who wish to group users, courses, and other LMS items based on business function, professional groupings, or some other corporate structure. Domains are also useful for Application Service Providers (ASPs) who wish to control access to the Learning Management Server based on customer type.

For example, an airline might want to maintain a Mechanics domain and a Pilots domain on the same Learning Management Server. Courses that appear in the course catalog would vary depending on whether a user belonged to the Mechanics domain or the Pilots domain.



Domains In a Large Corporation – Organized by Business Function



Domains in an ASP – Organized by Customer

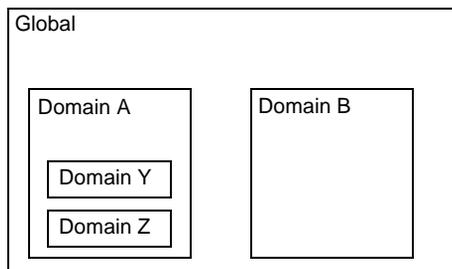
Alternatively, an ASP might support a variety of companies who access a single Learning Management Server. The ASP can create a separate domain for each company with separate course catalogs, separate user interfaces, and so on. Each company would have the impression of using a dedicated Learning Management Server.

**Note:** If you do not plan to create domains on the Learning Management Server, you can skip this section.

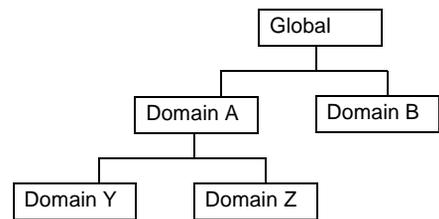
## About Domains

By default, the Learning Management server contains a Global domain. All users and courses you add to the Learning Management Server are included automatically in this domain.

You can add new domains as desired. The domains you add can be arranged hierarchically – enabling you to define large “parent” domains that contain more-exclusive “child” domains.

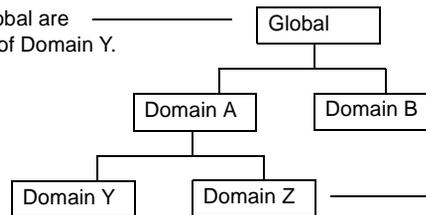


Containment Representation



Hierarchical Representation

Domain A and Global are “parent” domains of Domain Y.



Domain Z is a “sibling” domain of Domain Y.

Domain hierarchies enable you to include items in a parent domain that are inherited by the child domain. For example, if a parent Airline Employees domain contained more-specialized child domains for Mechanics and Pilots, pilots would have access to courses in the Pilots domain **and** courses in the Airline Employees domain. They would not have access to courses in the Mechanics domain.

Hierarchies simplify domain administration. For example, users you add to a child domain are automatically considered members of the parent domain. You do not have to add users separately to each domain.

Some things to remember about domain hierarchies include:

- You can define as many levels of domain hierarchy as desired.
- You can add a user to more than one sibling domain.
- Students viewing their own Transcript information will see a list of all courses taken regardless of the domain.
- A manager can manage employees in more than one domain.

### **Viewing and Modifying Domains**

Depending on what login role is assigned, users can either “view” items in a domain or “modify” domains. Viewing means you have access to items in a domain. For example, you can view courses in the course catalog, access transcript information, enroll in courses, and so on. However, you cannot change items in the domain. Modifying a domain means you can explicitly change domain-specific items in the domain. For example, you can add courses to the course catalog, add new users, and so on.

In the Reference Implementation, roles that enable users to view domains include Student, Instructor, and Manager. Roles that enable users to modify domains include Training Coordinator and Administrator.

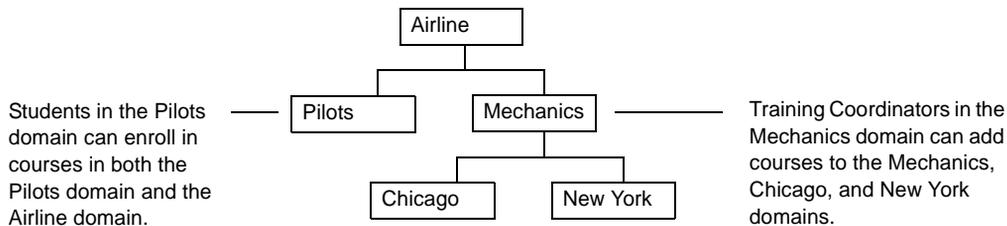
Ultimately, viewing and modifying within domains is determined by the permissions assigned to the user role. For example, any user who has a role with the permission “Can Change Others Email” would be able to change the email address of other users in the domain.

Some things to remember about viewing and modifying domains include:

- Depending on the domain hierarchy and permission settings, users might be able to view or modify more than one domain.

In general, the rule for viewing across domain hierarchies is that members of a child domain can view items in any parent (or grandparent) domain. (In other words, viewing works “up” the domain hierarchy.)

The general rule for modifying domains is that members who can modify a parent domain can modify items in a child domain. (In other words, modification works “down” the domain hierarchy.)



- Training Coordinators and Administrators can have modification access in one domain and view access in another. For example, a Training Coordinator in the Pilots domain could add courses to the Pilots domain, but only view/take courses in the Airline Employees domain.

### How Domains Work with Roles and Permissions

Roles are similar to domains in that they enable you to create collections of users with similar characteristics. (For more information, see “Managing Roles and Permissions,” on page 3-12.)

In the Reference Implementation, users are grouped into roles based on how they access the Learning Management Server. A role is essentially a named collection of permissions that specify which menus are available, what files can be changed, and so on.

For example, when a user logs on to the Learning Management Server, the Training Coordinator button appears on the LMS home page only if that user has permission to visit the page, `training_coOrdinator/menu.jsm`.

Domains enable you to create a collection of users based on the overall job responsibilities. Typically, domains reflect the business structure of your company rather than an access structure to LMS functions. This business structure can be defined by geographical areas or by job function or both.

When you add a new domain to the Learning Management Server, the domain inherits the same roles and permissions as the parent domain. You can then change the roles and permissions for the domain as desired to reflect the specific needs and demands of the domain.

For example, a “Training Coordinator” in a SW Region domain might have a different set of permissions from a “Training Coordinator” in a NW Region domain.

Some things to remember about roles and permissions in domains include:

- Because roles and permissions are defined on a per domain basis, you can only view roles and permissions for one domain at a time.
- You can only change roles and permissions one domain at a time.
- Because a child domain inherits roles and permissions from a parent domain, for each role or permission currently in the parent domain a corresponding role or permission is created (with the same name) in the child domain.

### Using Domains – A Workflow Summary

The following is an summary of the basic steps required to set up and use domains:

- Use the Administrator menu to create domains and set up the domain hierarchy. (See “Adding Domains,” on page 3-32.)
- If desired, use the Administrator menu to update or change roles and permissions for each domain. (See “Managing Roles and Permissions,” on page 3-12.)
- Use the Administrator and Training Coordinator menus to:
  - Add users to domains (See “Managing Users,” on page 3-2.)
  - Add courses to domains, set up the course catalog, and add course resources (See Chapter 4 and Chapter 5 for more information.)
  - Set up payment accounts and payment options for domains (See Chapter 8 for more information.)

Other domain-specific settings include: email setup, report generation, and so on. “Using Domains – Some Examples,” on page 3-34 provides some examples of how to use domains in the Reference Implementation.

## Planning Domains

Before you create new domains on the Learning Management Server, it is a good idea to plan the types of domains and domain hierarchies you want to include on the server. You also need to plan the roles and permissions included with each domain.

Some things to think about when you are planning domains:

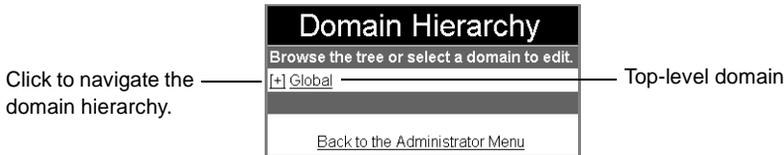
- Is the domain structure I have created set up for growth? Is it flexible enough to add new groups as needed?
- Who will maintain user accounts and course catalogs in each domain? Who will maintain the overall domain structure?
- Do I want to maintain role and permission consistency across domains? If not, which domains need special permissions or roles?
- What are the reporting requirements per domain? What kinds of information do I want to track per domain.
- How will new users be added to the system? Will domain administrators be responsible for adding their own users?

## Viewing Existing Domains

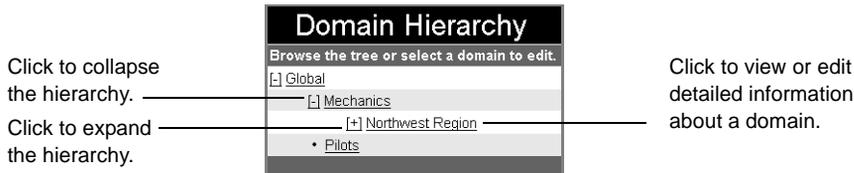
To view existing domains:

- 1 Open the Administrator menu and click Domains.

A page appears enabling you to view the domain hierarchy.



- 2 Use the plus (+) and minus (-) symbols to navigate the domain hierarchy.



- Click the plus (+) symbol to expand the hierarchy and view the next level.
- Click the minus (-) symbol to collapse the hierarchy.

The names of domains you can modify are underlined (  ). Click to edit the domain.

The screenshot shows the 'Edit Domain' interface. The 'Domain details' section contains the following fields:
 

- Parent Domain:** Mechanics
- Name:** Northwest Region
- Description:** Domain for all Mechanics reporting to the Northwest Region of the Airline.
- Image Root Directory:** Radio buttons for 'Inherit Parent's Setting' (selected) and 'Use Explicit Setting of' with an input field.
- Theme Root Directory:** Radio buttons for 'Inherit Parent's Setting' (selected) and 'Use Explicit Setting of' with an input field.

 Below these fields are 'Save' and 'Delete' buttons. The 'Child Domains' section lists 'Seattle' and 'Portland' as child domains, with an 'Add a new child domain' link at the bottom.

Annotations in the image:
 

- Points to the 'Name' field: To change a domain name, enter a new name and click save.
- Points to the 'Image Root Directory' and 'Theme Root Directory' sections: Theme and image root settings for the domain.
- Points to the 'Delete' button: Click to delete the domain. You cannot delete domains that contain LMS items.
- Points to the 'Child Domains' list: Child domains contained in the domain.

Domain information includes:

Table 3-6 Domain Information

Field	Description	Status
Name	Name of the domain. Changing a domain name does not alter the domain contents or domain hierarchy. Domain names must be unique across the domain hierarchy.	Required
Description	Brief description of the domain	Optional
Image and Theme Root Directories	Sets the image and theme roots for the domain. For more information, see "Using Themes with Domains," on page 3-40.	Required
Child Domains	List of child domains, if any, contained in the domain	Optional

## Adding Domains

To add a new domain to the hierarchy:

- 1 Open the Administrator menu and click Domains.

A domain hierarchy appears.

- 2 Navigate to the parent domain that will contain the domain you want to add.

- 3 Click the parent domain.

A domain description appears. This page lists child domains, if any, contained in the parent domain.

The image shows two overlapping screenshots from a web application. The top-left screenshot, titled "Domain Hierarchy", displays a tree view with the following structure: Global (expanded), Mechanics (expanded), Northwest Region (expanded), and Pilots (expanded). A line points from the text "Click to edit the domain." to the "Pilots" domain. The bottom-right screenshot, titled "Edit Domain", shows the "Domain details" form for the "Pilots" domain. The form includes fields for "Parent Domain" (Global), "Name" (Pilots), and "Description" (Domain for all Pilots in the Airline.). It also has radio buttons for "Image Root Directory" and "Theme Root Directory", both set to "Inherit Parent's Setting". Below the form are "Save" and "Delete" buttons. At the bottom, a "Child Domains" section shows "None" and a link "Add a new child domain". A line points from the text "Click to add a new domain." to this link.

- 4 Click Add a New Child Domain.

A domain description appears.

- 5 Enter a name and description for the domain.

Domain names must be unique across the domain hierarchy.

- 6 If desired, enter an image and theme root directory for the domain.

By default, the domain inherits the image and theme root directory from the parent domain. (For more information, see “Using Themes with Domains,” on page 3-40.)

The image shows two screenshots from a web application. The top screenshot is titled "Add Domain" and has a sub-header "Domain details". It contains the following fields and options:

- Parent Domain: [Pilots](#)
- Name:
- Description:
- Image Root Directory:
  - Inherit Parent's Setting
  - Use Explicit Setting of:(Note that a blank value defaults to the directory, /docentim. A non-blank value of XYZ becomes /docentim/XYZ).
- Theme Root Directory:
  - Inherit Parent's Setting
  - Use Explicit Setting of:(Note that a blank value defaults to the directory, themes. A non-blank value of XYZ becomes themes/XYZ).

A "Save" button is located at the bottom of the form. A callout box on the right points to the form with the text: "Enter information about the domain and click Save."

The bottom screenshot is titled "Domain Hierarchy" and has the instruction "Browse the tree or select a domain to edit." It shows a tree structure:

- Global
  - Mechanics
    - Northwest Region
      - [Portland](#)
      - [Seattle](#)
- Pilots
  - [Northwest Region](#)

A callout box on the left points to the "Northwest Region" entry under "Pilots" with the text: "The new domain appears in the domain hierarchy."

- 7 Click Save.

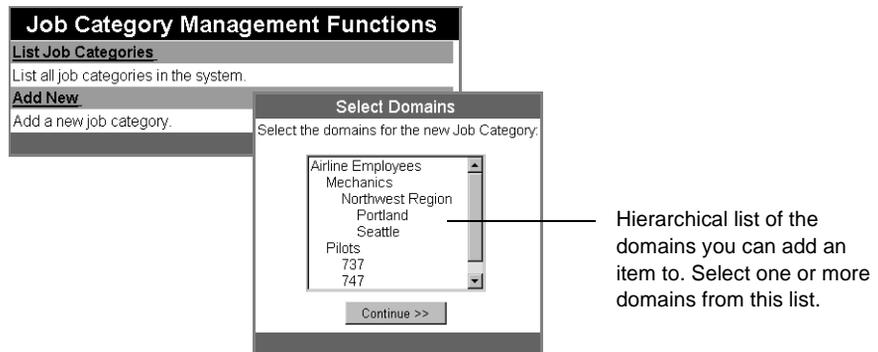
The domain you added appears in the domain hierarchy. You can now add users, courses and other LMS items to the domain.

## Using Domains – Some Examples

The following section provides some examples of how domains work with common LMS tasks in the Reference Implementation. You can use these examples as a model for understanding domains in your own LMS environment.

### Adding Items

In a multiple domain environment, when you **add** an item to the Learning Management Server, you must select a domain (or domains) for the item. Examples include adding a job category, adding a new user, and so on.



This page does not appear if:

- You have only one domain defined on the Learning Management Server.
- You can modify only one domain.

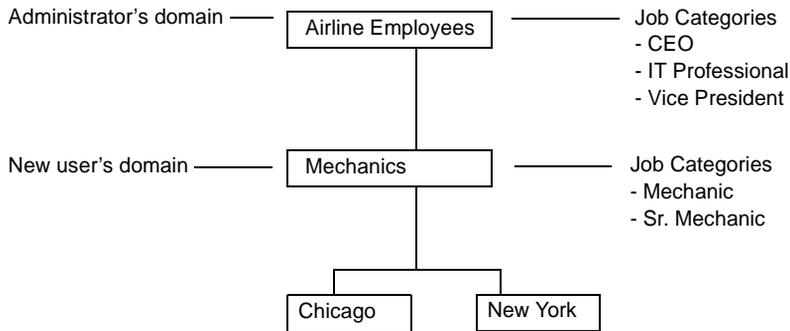
### Associating One Item with Another

In a multiple domain environment, when you **associate** one item with another (for example, associating a resource with a course meeting or a user with a job category), the rule for viewing across domains changes slightly.

The “view” is set with respect to the domain of the item you are associating instead of the domain of the user making the association.

Some examples include:

- When an Administrator assigns a job category to a new user, the list of available job categories displayed includes all job categories defined for the user’s domain (not the Administrator’s domain) plus all job categories defined for any parent domains that contain the user’s domain.



An Administrator adding a new user to the Mechanics domain would see job categories for both the Mechanics domain and the parent Airline Employees domain:

- CEO
- IT Professional
- Mechanic
- Sr. Mechanic
- Vice President

## Working with Domains

---

- When a Training Coordinator adds a new catalog section, the list of Parent Catalogs shows all catalog sections defined in the catalog's domain (not the Training Coordinator's domain) plus all catalog sections defined for any parent domains that contain the catalog.

The image shows a sequence of three screenshots from a software application, illustrating the process of adding a new catalog section. The first screenshot, titled 'Catalog Related Functions', shows a menu with options: 'Add New Catalog' (with a sub-menu 'Add a new catalog section.'), and 'List Catalog Sections' (with a sub-menu 'List all catalog sections.'). The second screenshot, titled 'Select Domains', shows a dialog box with the instruction 'Select the domains for the new Catalog Section.' and a list box containing 'Mechanics', 'Northwest Region', 'Portland', and 'Seattle'. A 'Continue >>' button is at the bottom. The third screenshot, titled 'Add a Catalog Section', shows a form with fields for 'Name', 'Code', and 'Description'. Below these is a 'Parent Catalogs' list box containing: 'Main Catalog', 'Employee Development Program', 'New Broker Learning Center', 'Operations Certification Program (OCP)', 'Operations Supervisor Training Program', 'IT Professional', 'Software Engineering', 'Computer Architecture', and 'Operating Systems'. At the bottom, there is a 'Domains' section with 'Mechanics' selected, a 'Change Domain Membership' link, and a 'Save' button. Three annotations with lines pointing to the screenshots provide context: 'Select the domain you want to add the catalog section to.' points to the 'Select Domains' dialog; 'This list contains all catalog sections in the catalog's domain plus catalog sections in all parent domains.' points to the 'Parent Catalogs' list; and 'Shows the domain you are adding the item to.' points to the 'Domains' section.

Select the domain you want to add the catalog section to.

This list contains all catalog sections in the catalog's domain plus catalog sections in all parent domains.

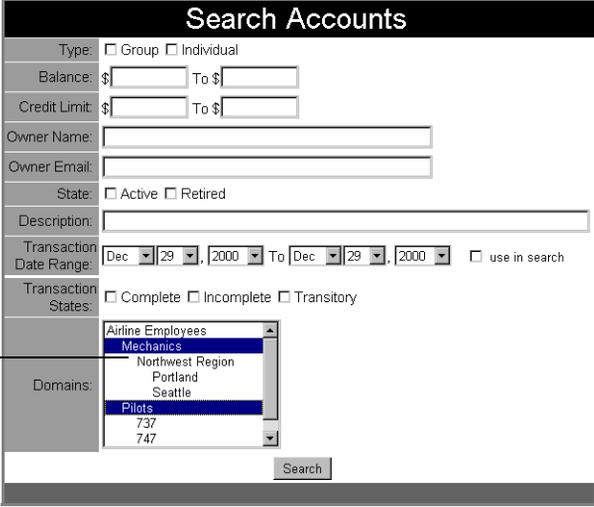
Shows the domain you are adding the item to.

- When a Training Coordinator associates a resource with a course meeting, the set of available resources includes all resources defined for the domain the course resides in (not the Training Coordinator's domain) and all resources defined for any parent domain that contains the course domain.

## Searching for Items

In a multiple domain environment, when you **search** for items, you can restrict your search to a specific domain or set of domains.

Select the domains you want to include in the search.



The screenshot shows a web form titled "Search Accounts". The form contains several input fields and checkboxes. The "Domains" field is a dropdown menu that is currently open, showing a list of domains: "Airline Employees", "Mechanics", "Northwest Region", "Portland", "Seattle", "Pilots", "737", and "747". The "Mechanics" and "Pilots" items are highlighted in blue. A line from the text "Select the domains you want to include in the search." points to the dropdown menu. Other fields in the form include "Type" (Group/Individual), "Balance" and "Credit Limit" (with dollar signs and "To" fields), "Owner Name" and "Owner Email" (text boxes), "State" (Active/Retired), "Description" (text box), "Transaction Date Range" (date pickers for Dec 29, 2000), and "Transaction States" (Complete/Incomplete/Transitory). A "Search" button is located at the bottom right of the form.

**Note:** The list of domains does not appear if you can view or modify only one domain.

### System Setup

In a multiple domain environment, LMS Administrators can maintain different email and Cybercash configurations for each domain.

The screenshot displays a web interface for system setup. On the left, a vertical menu titled "System Setup Management Functions" includes options for System Parameters, Email Setup, Cybercash Merchant Setup, and Preloaded Files Setup. The main area is divided into two overlapping windows. The top window, "Edit Email Configuration Parameters", shows fields for Domain Name (Global) and Parent Domain Name (N/A). The bottom window, "Edit Cybercash Merchant Configuration Parameters", shows a list of merchant configuration parameters including Cybercash ID, CCPS Host, CCPS Script, CCPS SSL Host, Hash Secret, Merchant Key, Time Limit, Address Verification Service (AVS) Level, MCK Type, Default Currency, HTTP Proxy Host, and HTTP Proxy Port. A "Save" button is located at the bottom right of the second window.

System Parameters	
Set up and view system configuration parameters such as Web Server URL, database version number, etc.	

Email Setup	
Set up and view Email configuration parameters	

Cybercash Merchant Setup	
Set up and view Cybercash merchant configuration parameters	

Preloaded Files Setup	
Set up and view preloaded files	

Edit Email Configuration Parameters	
Email Configuration Parameters	
Domain Name:	Global
Parent Domain Name:	N/A

Edit Cybercash Merchant Configuration Parameters	
Merchant Configuration Parameters	
Domain Name:	Global
Parent Domain Name:	N/A
Cybercash ID:	test-mck
CCPS Host:	http://cr.cybercash.com/cgi-bin/
CCPS Script:	directcardpayment.cgi
CCPS SSL Host:	https://cr.cybercash.com/cgi-bin/
Hash Secret:	WxWekrekjlaejelksaldjladfjla
Merchant Key:	gmRdp8rbzccRdISg9eLRScFeeQSvewSFsBzq6
Time Limit:	120
Address Verification Service (AVS) Level:	N
MCK Type:	merchant
Default Currency:	usd
HTTP Proxy Host:	
HTTP Proxy Port:	0
<input type="button" value="Save"/>	

When an email message is sent to a user, the domain the user belongs to determines what email configuration is used. Email configuration controls the mail server used to deliver the mail, the default subject of the email message, and so on. For more information, see “Setting Up Automated Email Messages,” on page 9-15.

When a Student performs a credit card transaction, the domain the Student belongs to determines what Cybercash configuration is used. Cybercash configuration controls what merchant account the transaction is run against, the location of the transaction server and so on. For more information, see “Setting Up Cybercash Accounts,” on page 8-3.

**Note:** If you do not specifically set email and Cybercash configurations for a domain, the domain inherits the settings from the parent domain.

## Changing Domain Membership

In a multiple domain environment, each item you add to the Learning Management Server has a domain or set of domains associated with it. You can change domain membership as desired.

The following is an example of how to change domain membership for a job category. You can use this as a model for changing the domains of other LMS items.

To change domain membership:

- 1 Open the Training Coordinator menu and click Job Categories > List.  
A list of job categories appears.
- 2 Click the job category you want to change.

An Edit Job Category page appears. The bottom of the page lists the domains that currently contain the job category.

Click the item you want to change.

Job Categories	
Code	Title
CEO	Chief Executive Officer
E-SSE	Senior Software Engineer
E-SDE	Software Development Engineer
E-SE	Software Engineer
PS-TC	Technical Consultant
E-VP	Vice President of Engineering
PS-VP	Vice President of Professional Services

Showing 1-7

List of domains that contain the item

Edit Job Category	
Job Category Details	
Code:	PS-TC
Title:	Technical Consultant
Description:	
<input type="button" value="Save"/> <input type="button" value="Delete"/>	
Domains	
Airline Employees	
<a href="#">Change Domain Membership</a>	

- 3 Click Change Domain Membership.  
A list of domains you can modify appears.
- 4 Select one or more domains and click Continue.

The image shows two overlapping web forms. The 'Select Domains' form on the left has a title bar 'Select Domains' and a subtitle 'Select the domains for this Job Category:'. It contains a list box with the following items: 'Airline Employees', 'Mechanics', 'Northwest Region' (highlighted in blue), 'Portland', 'Seattle', 'Pilots', '737', and '747'. Below the list box is a 'Continue >>' button. The 'Edit Job Category' form on the right has a title bar 'Edit Job Category' and a subtitle 'Job Category Details'. It contains several input fields: 'Code:' with the value 'PS-TC', 'Title:' with the value 'Technical Consultant', and 'Description:' with an empty text area. Below these fields are 'Save' and 'Delete' buttons. At the bottom, there is a section titled 'Domains' containing a list of 'Northwest Region', 'Portland', and 'Seattle'. Below this list is a link labeled 'Change Domain Membership'.

The domains you selected appear at the bottom of the Edit Job Category page.

- 5 Click Save.  
The job category is added to the domains you specified.

## Using Themes with Domains

In a multiple domain environment, you can set up separate themes for each domain. (For more information about themes, see Chapter 11.)

By default, a domain inherits theme and image directories from the parent domain, but you can set new locations if desired. This enables you to have a separate look and feel for each domain.

To associate a theme with a domain:

- 1 Prepare a theme directory that contains the theme App files you want to use for the domain.

Typically, this directory is located in the `content` directory on your Learning Management Server. For example:

```
<lms_home>/content/themes/<my_theme>
```

where `<lms_home>` is your LMS home directory and `<my_theme>` is the name of the theme directory you created.

- 2 Prepare an image directory that contains the `.jpg` and other image files you want to use with the theme.

Typically, this directory is located in the `docentlm` directory on your Web server. For example:

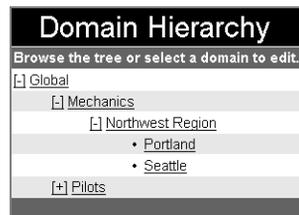
```
<webroot>/docentlm/<my_theme_images>
```

where `<webroot>` is the documentation root directory of your Web server and `<my_theme_images>` is the name of the directory you created for the image files.

- 3 Open the Administrator menu and click Domains.

A domain hierarchy appears.

- 4 Click the name of the domain you want to set the image and theme root directories for.



The Edit Domain page appears.

**Edit Domain**

**Domain details**

Parent Domain: Northwest Region

Name: Seattle

Description: Domain for all Mechanics based in Seattle.

Image Root Directory:  Inherit Parent's Setting  Use Explicit Setting of:

(Note that a blank value defaults to the directory, /docentlm. A non-blank value of XYZ becomes /docentlm/XYZ)

Theme Root Directory:  Inherit Parent's Setting  Use Explicit Setting of:

(Note that a blank value defaults to the directory, themes. A non-blank value of XYZ becomes themes/XYZ)

**Child Domains**

None

[Add a new child domain](#)

- 5 Enter paths to the image and theme root directories you want to use.

The path you enter for the image root directory is set with respect to the `<webroot>/docentlm` directory.

For example, leave the path blank to reference `<webroot>/docentlm`, or enter `<my_theme_images>` to reference `<webroot>/docentlm/<my_theme_images>`.

The path you enter for the theme root directory is set with respect to the `<lms_home>/content/themes` directory.

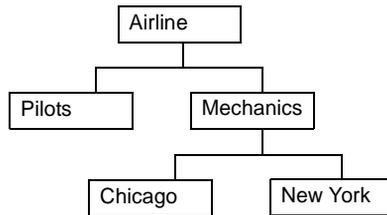
- 6 Click Save.

When a user logs on to the Learning Management Server, the theme associated with the user's domain appears.

If the user is a member of sibling domains and each domain has a separate theme associated with it, you can control which theme appears by setting a preferred domain for the user. For more information, see the following section, "Setting Preferred Domains".

## Setting Preferred Domains

By default, when you add a user to a domain, the user is automatically a member of any parent domains. In most cases, this eliminates the need to add users to more than one domain. Occasionally, you may want to add a user to multiple, sibling domains. For example, a maintenance test pilot might need to be a member of both the Pilots and the Mechanics domains.



For users in more than one domain, you can set a preferred domain for the user. This enables the user to access more than one domain, but creates a “selection” priority for conflicting domain settings such as domain themes, email configuration, and so on.

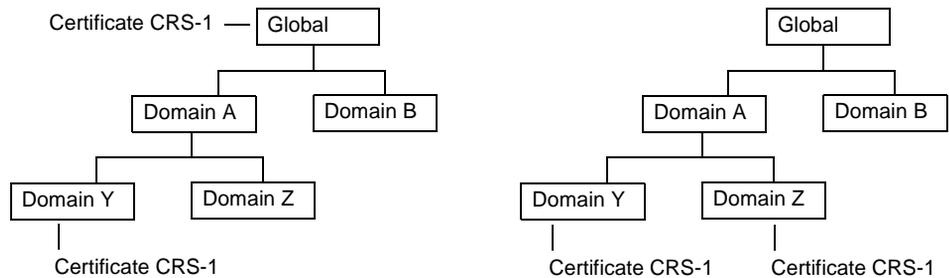
Add User	
User Details	
First Name:	Mary
Last Name:	Cohen
Email:	mcohen@company.com
Password:	****
Verify Password:	****
System ID:	EMP-302
Job Category:	Technical Consultant
Manager:	Tong, Ken
Roles:	<ul style="list-style-type: none"> <li>Anonymous</li> <li>Instructor</li> <li>Manager</li> <li>Student</li> <li>System Administrator</li> </ul>
Preferred Domain:	Airline Employees
Save	
Domains	
Airline Employees	
Mechanics	
Pilots	
<a href="#">Change Domain Membership</a>	

Click to select a preferred domain for the user you are adding. Only domains the user is a member of appear on this list.

## Maintaining Uniqueness Across Domains

When you add an item to the Learning Management Server, there are a number of properties that must be unique within a given domain and within the parent domains that contains the item (for example, a course code number).

However, two sibling domains can have the same property as long as the property is unique across parent domains.



Parent domains **cannot** have the same certificate code as a child domain.

Sibling domains **can** have duplicate certificate codes.

Property uniqueness on the Learning Management Server includes the following:

Table 3-7 Uniqueness Across Domains

Subject Category	Item	Property
Course Catalogs (See Chapter 4.)	Catalog Section	Name
	Certificate Program	Code
Competency Assessments (See Chapter 7.)	Activity Domain	Name
	Activity Category	Name
	Activity	Name
	Competency	Name
	Activity Profile	Name
Courses (See Chapter 4.)	Course	Code
	Score Map	Name

Table 3-7 Uniqueness Across Domains

<b>Subject Category</b>	<b>Item</b>	<b>Property</b>
Payment Accounts (See Chapter 8.)	Account	Name
Course Resources (See Chapter 5.)	Resource Type	Name
	Resource	Name
	Location	Name
Course Delivery Sites (See Chapter 3.)	Content Delivery Server <sup>1</sup>	Name
User Profiles (See Chapter 3.)	Job Category	Name
	User	Email <sup>2</sup>

1. The combination of CDS site name and course name must be unique across the entire Learning Management Server.

2. Must be unique across the entire Learning Management Server.

Some things to remember about property uniqueness across domains include:

- If only one domain is present, uniqueness applies to items across the entire Learning Management Server. (This is the same as if the Learning Management Server did not support domains.)
- Domains that are siblings can include items with duplicate properties (for example, course codes). This enables ASP vendors to provide a “slice” of the Learning Management Server to their clients without those clients being encumbered by each other.
- A user never sees two items with the same name — unless the user is a member of multiple sibling domains.

## Domain Reports

In a multiple domain environment, when you request an LMS report, you must specify the domain or domains for the report. For example, Training Coordinators can view enrollments for all domains they modify.

Enrollment Reports	
<b>Total Enrollment Counts</b>	A listing of all courses, with their total enrollment counts.
<b>Time Period Enrollment Counts</b>	A listing of all courses, with their total enrollment counts during a specified time period.
<b>Completed Enrollment Lists</b>	A listing of all courses and all students who have completed the course.
<b>Time Period Completed Lists</b>	A listing of all course sessions which started within a specified time period and all students who have completed the course.

**Select Domains**

Select the domains for the Total Enrollment report.

▲▼

Mechanics  
**Northwest Region**  
 Portland  
 Seattle

Continue >>

Domains covered by a report are listed in the report title.

Course Enrollments									
Report for courses in domain set: Northwest Region, Portland, Seattle.									
Instructor Led Courses									
Session Code	Course	Completed	Enrolled	Pending Approval	Conditionally Enrolled	Approved	Waiting	Cancelled	
Sorry, there are no enrollments									
Online Courses									
Session Code	Course	Completed	Enrolled	Pending Approval	Conditionally Enrolled	Approved	Waiting	Cancelled	
CRS-103	Windows Networking: UNIX Connectivity	10	15	2			N/A		
CRS-98	Windows Networking: Browsing the WAN	10	23		2		N/A		

**Note:** For more information about reports, see Chapter 9.

In addition to viewing domain-specific information in standard LMS reports, the Learning Management Server provides reports specifically designed to view and manage items in domains.

Domain Reports	
<b>Entity Report</b>	
See a report showing all selected entities residing in the specific domain.	
<b>Visibility Report</b>	
See a report showing what the us	

Entities in the Selected Domains	
Entities in domain set: Global.	
Showing 1-19	
Entity name	Entity type
Chief Executive Officer	Job Category
Senior Software Engineer	Job Category
Software Development	
Software Engineer	
Technical Consultant	
Vice President of Engin	
Vice President of Profe	
anonymous	
ben@test.docent.com	
ckramer@test.docent.c	
docentsetup	
fl@test.docent.com	

Entities Visible From The Selected Domains	
Domain set: Global.	
Showing 1-50	
<a href="#">Next 50</a>	
Entity name	Entity type
Computer Architecture	Catalog Section
Computer Networks Specialist	Catalog Section
Employee Development Program	Catalog Section
IT Professional	Catalog Section
Main Catalog	Catalog Section
Operations Certificate	Certificate
Operations Supervisor Certificate	Certificate
AGE Orientation	Course
Branch Operations Certification Program	Course
Branch Training Program	Course
C++ Programming	Course
Developing Oracle Applications	Course

## Entity Reports

You can create an Entity report to view LMS items associated with a domain or set of domains. In the Reference Implementation, Administrators and Training Coordinators can create Entity reports.

To create an Entity report:

- 1 Click Reports > Domains > Entity Report.

A list of entity types and domains appears. Entities are LMS items you can include in a domain such as courses, job categories, and so on.

- 2 Select the entity types and domains you wish to include in the report.

The screenshot shows a dialog box with three main sections: 'Select Entity Types', 'Select Domains', and 'Sort By'. In the 'Select Entity Types' section, a list of entity types is shown with 'Resource', 'Resource Type', and 'Session' selected. In the 'Select Domains' section, 'Portland' and 'Seattle' are selected. In the 'Sort By' section, 'By Entity Type' is selected. Callouts point to these sections with the following text:

- Select Entity Types:** Select the types of entities to include in the report. Use Control-click or Shift-click to select more than one type.
- Select Domains:** Select the domains you wish to include in the report. Only domains you can modify appear in this list.
- Sort By:** If desired, specify how the reports should be sorted. You can sort by Entity Type or Entity Name.

- 3 Click Continue.

A report appears. This report lists all items contained in the domains you specified that match the entity types you specified.

Entities in the Selected Domains	
Entities in domain set: Portland, Seattle.	
Showing 1-11	
Entity name	Entity type
docentsetup	Resource
fl@test.docent.com	Resource
llan's Office	Resource
ktong@test.docent.com	Resource
LCD Projectors @ Mt View	Resource
Montessori Training Room	Resource
Overhead Projectors @ Mt View	Resource
Slide Projector @ Mt View	Resource
Instructor	Resource Type
Projector	Resource Type
Room	Resource Type
Showing 1-11	

## Visibility Reports

In addition to Entity reports, you can create a report that enables you to view items a Student would see in a domain. This Visibility report enables you to quickly check domain contents without logging on as a Student. In the Reference Implementation, Administrators and Training Coordinators can create Visibility reports.

To create a Visibility report:

- 1 Click Reports > Domains > Visibility Report.

A list of entity types and domains appears. Only entities viewable by Students are included in the list.

- 2 Select the entity types and domains you wish to include in the report.

The screenshot shows a web interface for selecting entity types and domains. It is divided into three main sections: 'Select Entity Types', 'Select Domains', and 'Sort By:'. The 'Select Entity Types' section has a dropdown menu with 'Certificate', 'Catalog Section', 'Course', and 'Session'. The 'Select Domains' section has a list box with 'Airline Employees', 'Mechanics', 'Northwest Region', 'Portland', 'Seattle', 'Pilots', '737', and '747'. The 'Sort By:' section has a dropdown menu with 'By Entity Type' and a 'Continue' button. Three lines with text boxes point to the 'Select Entity Types' dropdown, the 'Select Domains' list box, and the 'Sort By:' dropdown menu.

Select the types of entities to include in the report. Only entities Students can view are listed.

Select the domains you wish to include in the report. Only domains you can modify appear in this list.

If desired, specify how the reports should be sorted. You can sort by Entity Type or Entity Name.

- 3 Click Continue.

A report appears. This report shows all entities, of the types you specified, that can be viewed by Students from the domains you specified.

Entities Visible From The Selected Domains	
Domain set: Mechanics.	
Showing 1-50	
<a href="#">Next 50</a>	
Entity name	Entity type
Computer Architecture	Catalog Section
Computer Networks Specialist	Catalog Section
Employee Development Program	Catalog Section
IT Professional	Catalog Section
Main Catalog	Catalog Section
AGE Orientation	Course
Branch Operations Certification Program	Course

### Setting Default Roles and Domains

In a standard configuration, all users on the Learning Management Server are assigned the default role of Student. If desired, you can specify additional roles to include as the default.

This method of setting default roles and domains only applies to users who self register on the Learning Management Server (via the `docent_lm_adduser.html` page).

To set default roles:

- 1 Open the system configuration file in the LMS home directory (`<lms_home>/config/system_config.xml`) and locate the line that contains the registration control tag. For example:

```
<registrationcontrol DEFAULT_ROLES="STUDENT"/>
```

- 2 Add other roles as desired. For example:

```
<registrationcontrol DEFAULT_ROLES="STUDENT, INSTRUCTOR"/>
```

The roles you specify must already be defined on the Learning Management Server. See “Adding Roles,” on page 3-14 for more information.

- 3 Save the file and restart the server.

Now, all users added to the Learning Management Server have both a Student and Instructor role assigned by default.

**Note:** In addition to roles, you can also include default domains. For example:

```
<registrationcontrol DEFAULT_ROLES="STUDENT"  
DEFAULT_DOMAINS="Engineering,Sales"/>
```

