Managing Users

LDAP Directory

The LDAP directory is the source of user data for LMS. When LMS performs a function such as authenticating or rostering a new user, it searches the LDAP directory for user data. Additional user data, such as LMS roles and enrollment, are stored in the LMM database.

Lesson topics

This lesson presents the following topics:

- Lightweight Directory Access Protocol
- Searching the LDAP directory
- Automatically selecting users

Lightweight Directory Access Protocol

Lightweight Directory Access Protocol (LDAP) is an Internet defined protocol for accessing directory services over a TCP/IP connection. Examples of publicly available LDAP servers are iPlanet, Microsoft Windows 2000 Active Directory, and IBM Directory Server. Lotus Domino (Release 5.05 and above) can be an LDAP server if it is running the LDAP task.

The LDAP directory maintains data on users and groups and serves this data to LMS when certain events occur, such as authentication, or adding users to the LMS roster.

Using LDAP with LMS

When a new user is added to the Learning Management Module (LMM), the system searches the LDAP directory for user data including name, password, and e-mail address.

This data, along with additional user data (for example, LMS roles and profiles) are stored in the LMM database.

Note: The LDAP directory is read only from LMS. Administrators can search and retrieve data from the LDAP directory but cannot make changes to the directory. For example, the administrator cannot reset a user's password in LMS, this must be done in the LDAP directory.

Collaboration applications that also use the LDAP directory include:

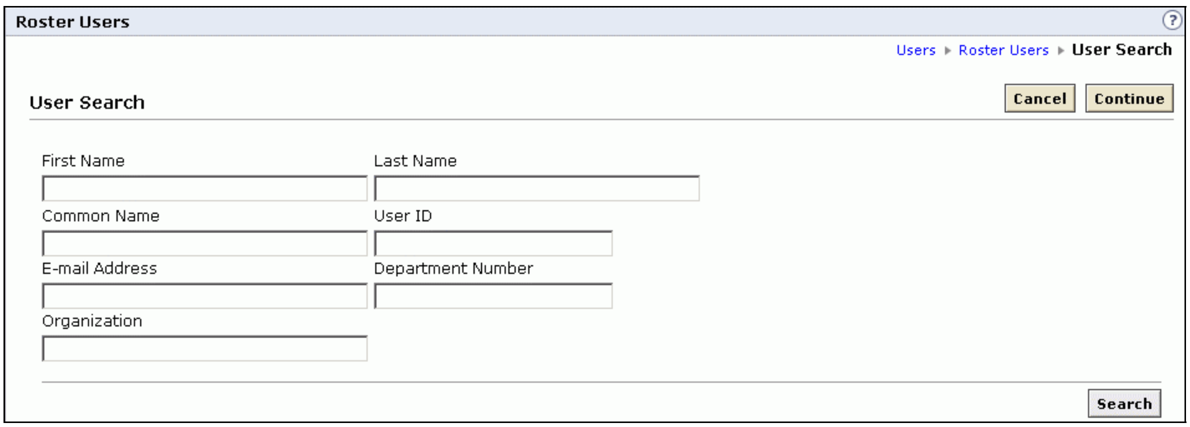
- Lotus LearningSpace – Virtual Classroom
- Lotus Sametime
- Lotus Domino
- Lotus Discovery Server

Because these servers use the same LDAP directory, Single Sign On (SSO) can be enabled when these servers are configured into the LMS environment. With SSO, users are authenticated once, at login, and can navigate between these applications without logging into each one separately.

Searching the LDAP Directory

When performing some functions, such as rostering new users and enrolling students in courses, the LMS searches the LDAP directory for user and group data. The resulting user and group names that display are then used to perform the function. For example, to roster a new user, the administrator searches the LDAP directory for a user or group name. The search results – user or group names – are then selected and those users are added to the LMS roster.

The administrator enters one or more search criteria into a search form. The following figure shows the search form that displays when a new user is rostered.



The administrator enters one or more values to find and displays one or more users.

The search parameters are defined by the LMS administrators when they:

- Roster new users.
- Enroll students in courses, certificates, and curricula.
- Assign instructors to courses.
- Run reports.

Automatically Selecting Users

LMS provides some functions that perform automatically. In these instances, the administrator defines parameters that search the LDAP directory and select specific users or groups of users. For example, the administrator can automatically enroll all users who are members of a specific group in the LDAP directory.

Other instances when selection is used for automatic functions include:

- Sending announcements to students
- Automatically assigning roles
- Enforcing access control for location and Course Catalog data
- Displaying a customized user interface to specified users

Selection parameters

To select to enable automatic functions for specified users, two search parameters are defined by the administrator:

- Matching Type – This defines how the search will be conducted. There are three Matching Types that can be used:
  - Attribute
  - Group
  - Name
- Matching String – The value that must be matched.

LDAP directory search examples

Example One

All users who have been assigned to department 325

Matching Type = `Attribute`

Matching String = `departmentnumber=325`

Example Two

All users in the Developers group

Matching Type = `Group`

Matching String = `Developers/domain`

Automatically Selecting Users...*(continued)*

LDAP directory search examples…

Example Three

All users whose distinguished name begins with G

Matching Type = `Name`

Matching String = `G*`

Matching String operators

The matching string syntax allows you to use some operators including wildcards.

Text String Matching

- Wildcard values (*, %, and !) can be used for text string matching.
- Wildcards cannot begin text string matching.
- Text string matching is case sensitive.

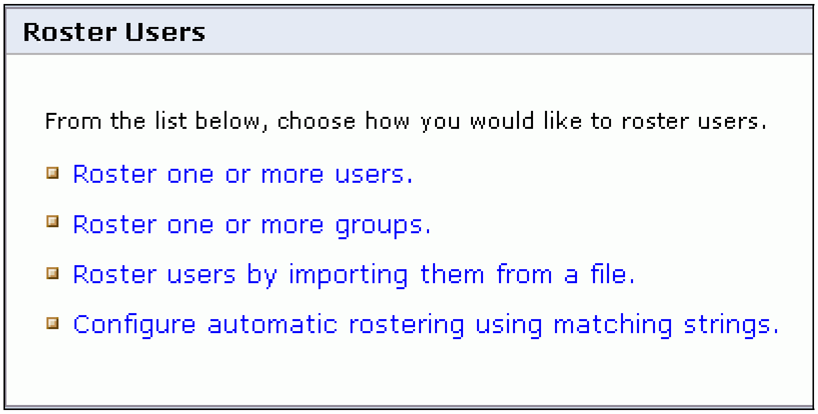
Numeric and Date string matching

For numeric and date strings, you can use the following operators:

- > greater than
- < less than
- = equal to

Rostering Users

There are four methods for adding users to LMS. The following figure shows the **Roster Users** menu page.



Lesson topics

This lesson presents the following topics:

- Rostering one or more users
- Rostering groups of users
- Importing Users from a text file
- Auto-rostering users

Rostering One or More Users

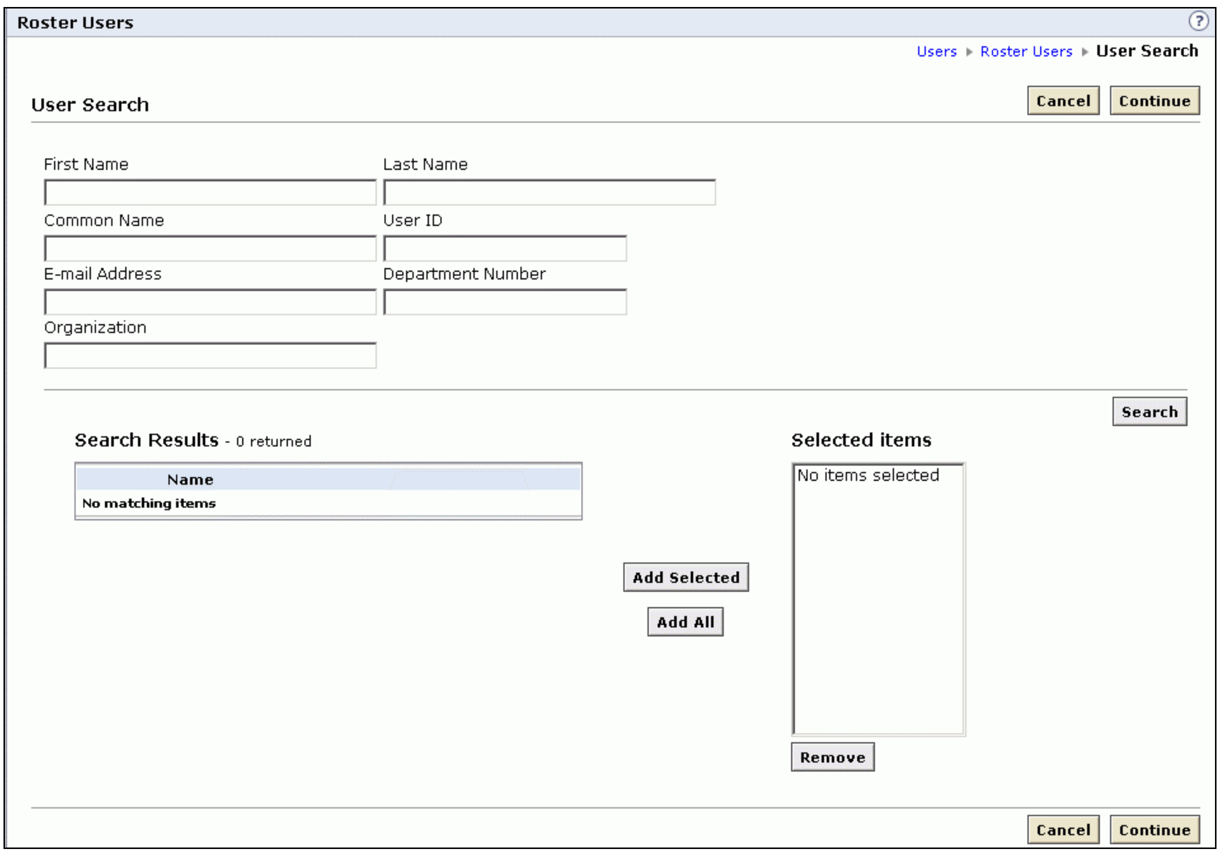
You can add individual users to the Learning Management System roster.

Roster one or more users

The first option for rostering users is to add them to the LMM as individuals.

Follow these instructions to roster one or more users.

1. Select the option **Roster one or more users** to display the following form.



2. Next, enter search criteria, for example, the users last name, and click **Search**.

   Note: You need to enter one search criteria only. For example, you can enter a last name to display all LDAP directory users with that name. For more refined searching, enter more than one search criteria.

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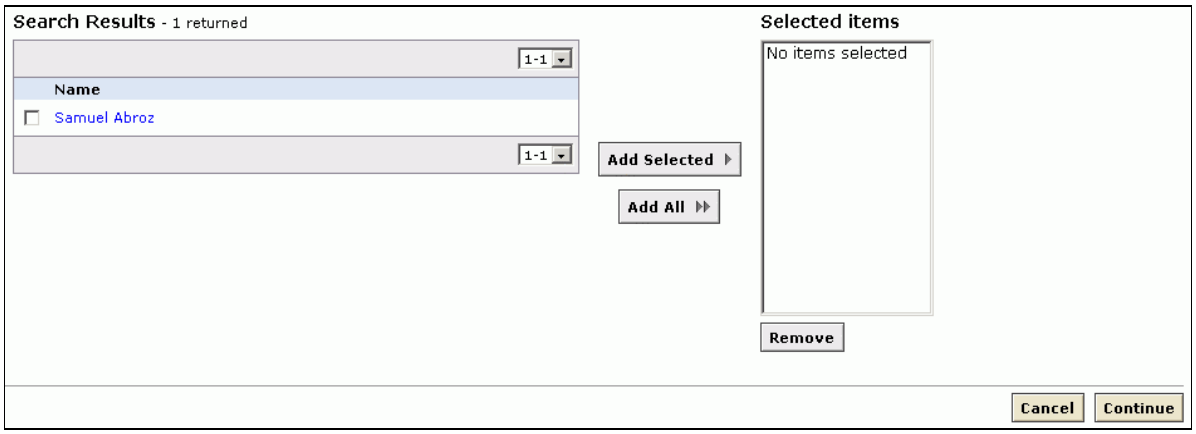
Rostering One or More Users...*(continued)*

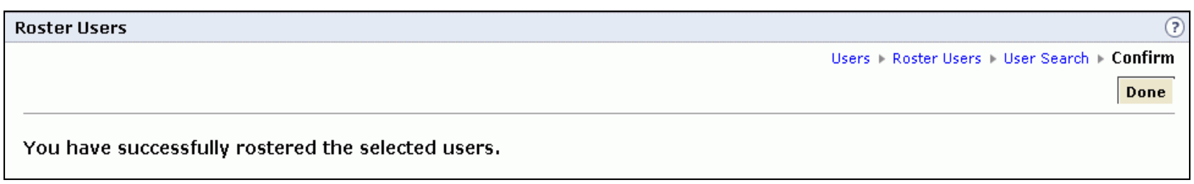
Roster one or more users…

Result: Search results are displayed in the **Search Results** box. The following figure shows the results of a search on the last name **Abroz**.



3. Select one or more names and click **Add Selected**.
4. Click **Continue**.

Result: The following screen displays, confirming the addition of the new user.



5. Click **Done**.

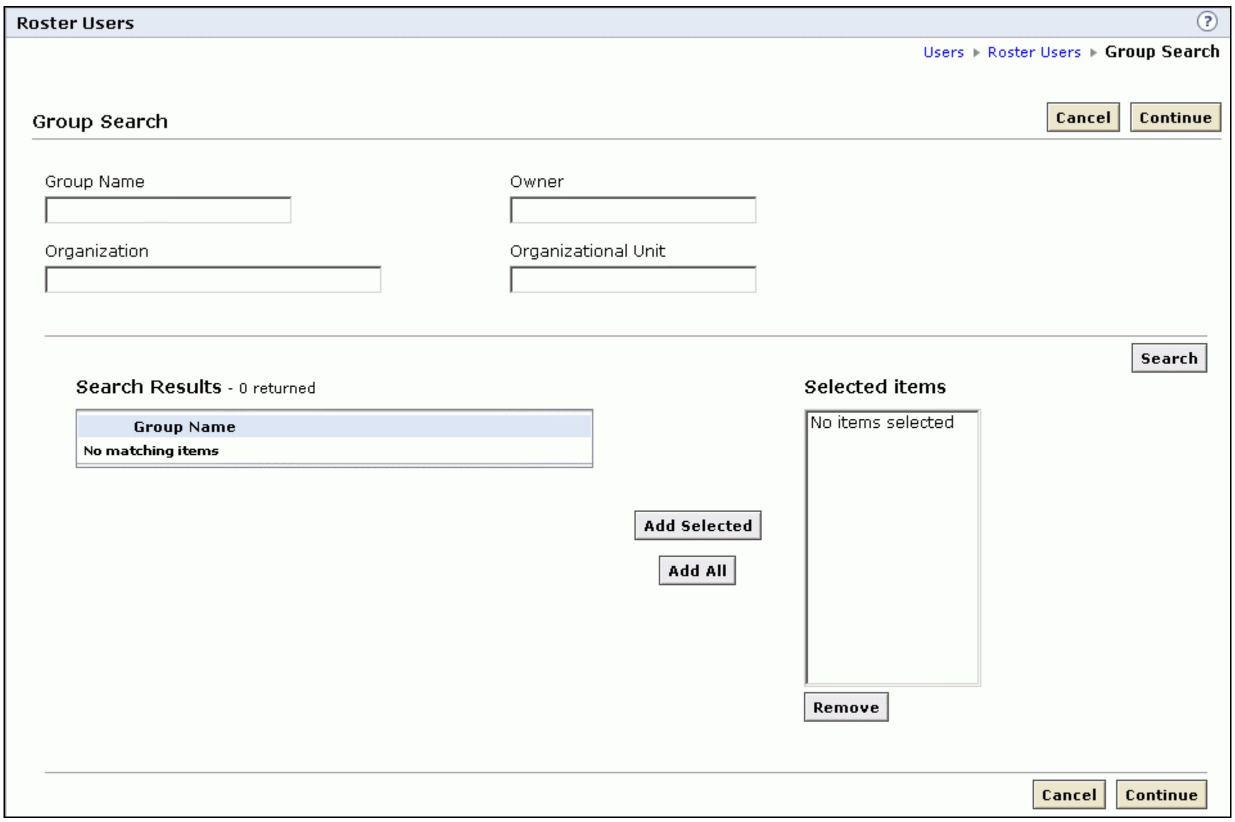
Rostering Groups of Users

Administrators add groups of users to the LMM. Groups are created and maintained in the LDAP directory.

Roster groups of users

Follow these instructions to roster groups of users.

1. Click the **Roster one or more groups** link to display the following form.



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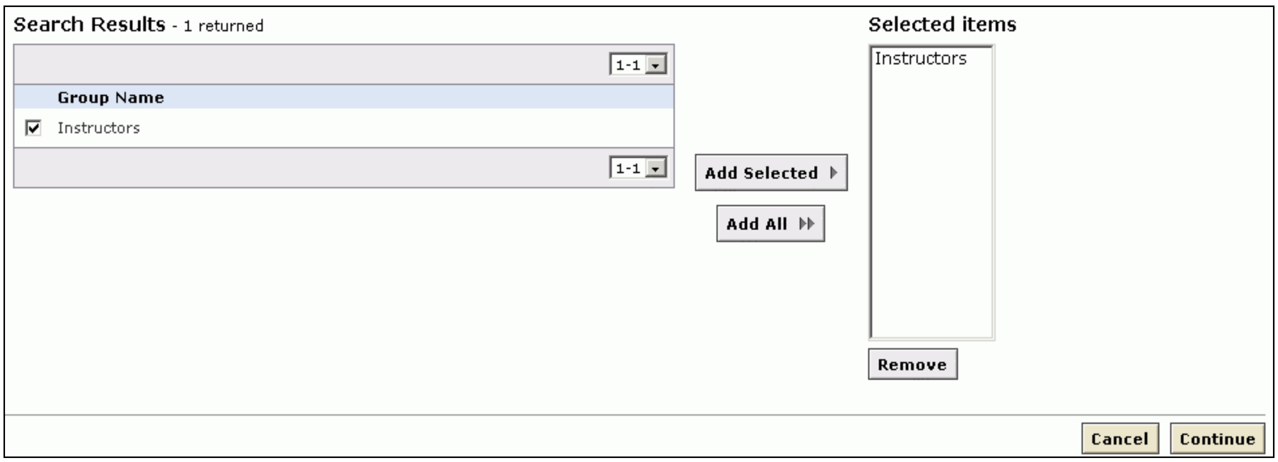
Rostering Groups of Users...*(continued)*

Roster groups of users…

2. Enter search criteria, for example, the Group Name, and click **Search**.

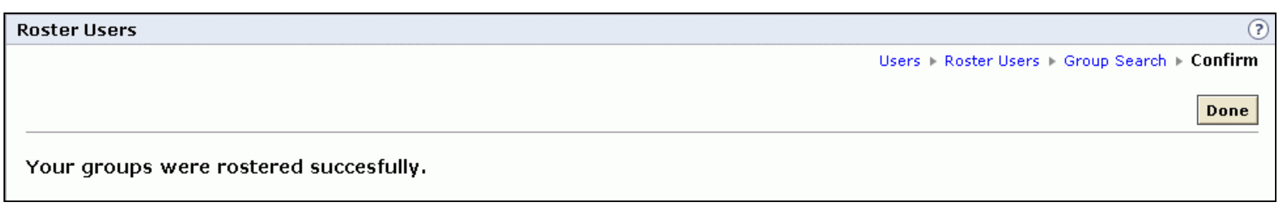
   Note: You need to enter one search criteria only. For example, you can enter an **Organization** name to display all LDAP directory groups in the organization's hierarchy. For more refined searching, enter more than one search criteria.

   Search results are displayed in the **Search Results** box. The following figure shows the results of a search on the **Instructors** group.



3. To display additional groups, enter the search criteria and click **Search**.
4. Select one or more group names and click **Add Selected** or **Add All**.
5. Click **Continue**.

Result: The following screen displays, confirming the addition of all users who are members of the group(s).



6. Click **Done**.

Note: The users are added to the LMS roster, the group is not added to LMS.

Importing User Data From a Text File

Users can be added to LMS using data contained in a text file. Only users who exist in the LDAP directory can be imported.

Note: Adding users from an LDIF file does not add those users to the LDAP directory, which is read-only from LMS. You cannot use this method to roster users from another LDAP directory.

LDIF file structure

The text file must be formatted as an LDIF (LDAP Data Interchange Format) file. The LDIF file must contain the following data for each user:

- `cn:<common name>`
- `dn:<distinguished name>`
- `o:<organization>`
- `objectClass:<object class>`
- `ou:<organizational unit>`
- `sn:<surname>`
- `uid:<short name or user ID>`
- `userPassword:<user's password>`

Separate the fields with a comma.

Importing User Data From a Text File...*(continued)*

Import user data

To import users from a file:

1. Click the **Roster Users by importing them from a file** link.
2. Browse to select the LDIF file and roster those users.

The **Roster Users by importing them from a file** form is shown in the figure below.

Auto Roster Users

Users can be automatically added to the LMS roster from the LDAP directory. Using this method, administrators can roster new users automatically, when they are added to the LDAP directory. The administrator identifies a user attribute, for example a group name or organizational unit. When a new user record is created in the LDAP directory that matches the user attribute, the user is rostered in LMS.

Selecting users

Auto rostering uses Matching Type and Matching String to select users. The following table lists some examples.

Type	Matching String	Will Find This Type of User
User	*/People/Acme	All users in the organizational unit **people** in the domain called Acme.
Attribute	DepartmentNumber=C315	All users in the department C325
Attribute	DepartmentNumber=!C325	All users who are **not** in the department C325.
Group	Sales_Managers/Groups/Acme	All users in the Sales Managers group in the domain called Acme.

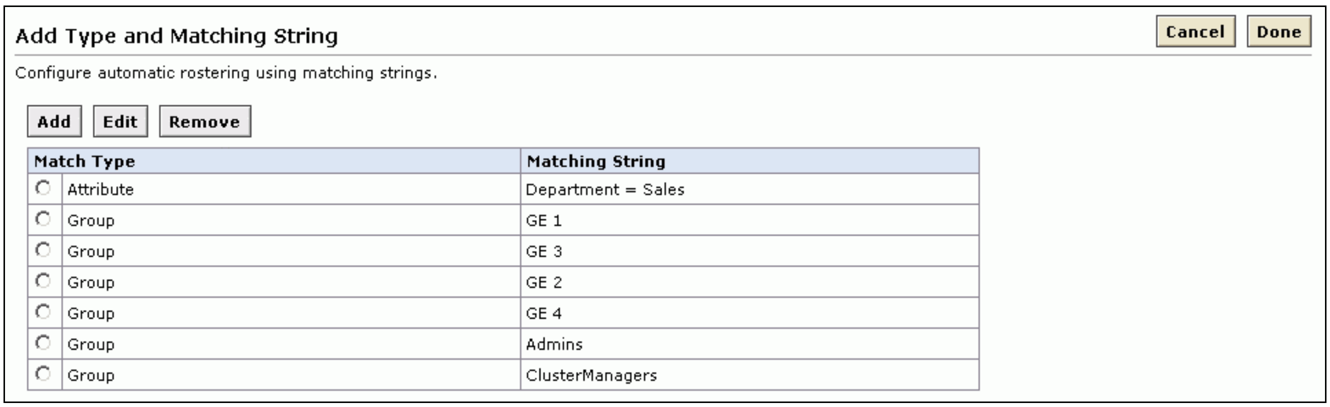
Auto Roster Users...*(continued)*

Configure automatic rostering using matching strings

Follow these instructions to configure automatic rostering using matching strings.

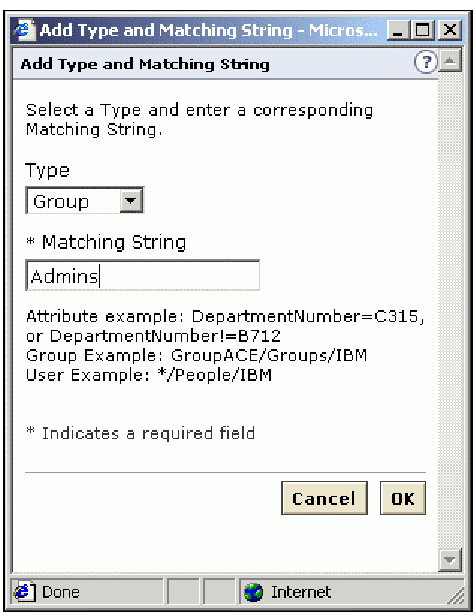
1. From the **Roster Users** menu page, click **Configure automatic rostering using matching strings**.

   Result: The **Add Type and Matching String** form displays similar to the example shown in the figure below.



2. Click **Add** to create a new Type and Matching String.

   Result: The **Add Type and Matching String** dialog box displays.



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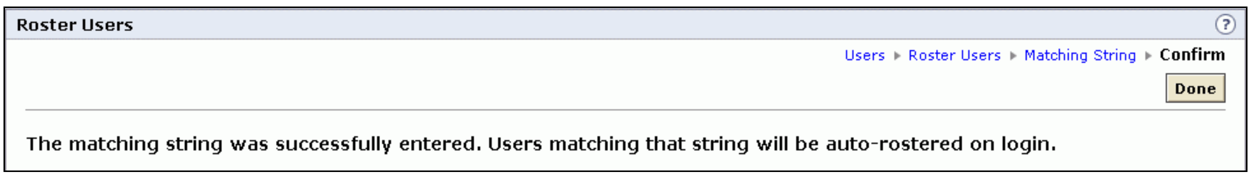
Auto Roster Users...*(continued)*

Configure automatic rostering using matching strings…

3. Select the **Type**. This is the search category. Choices are: User, Attribute, and Group
4. Enter the **Matching String** and click **OK**.
5. Select the **Match Type** from the list and click **Done**.

Result: The following window displays confirming the addition of the new users.



Removing Users From the Roster

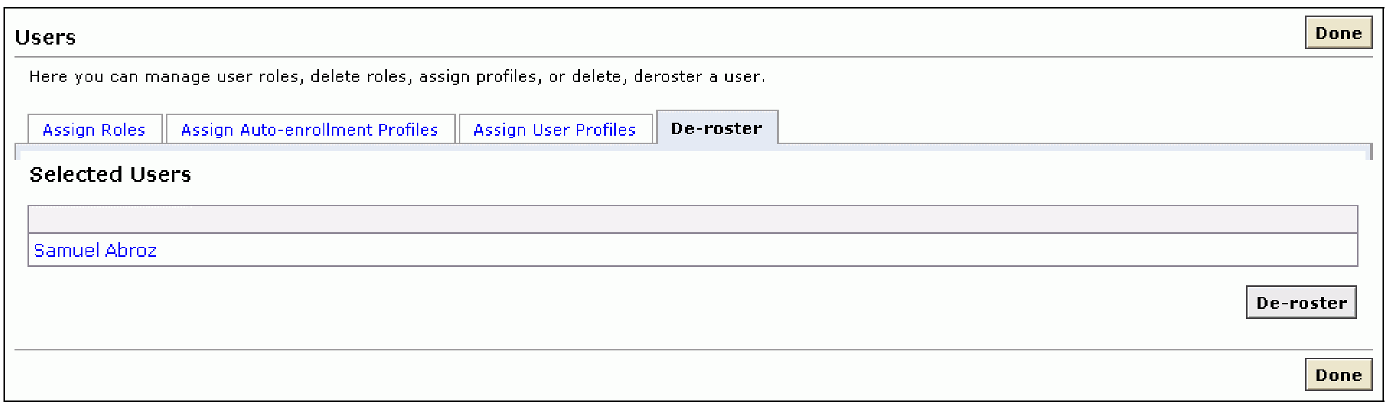
Administrators can remove users from the roster. Removing a user does not affect their record in the LDAP directory.

Remove a user from the roster

Follow these instructions to remove a user from the roster.

1. From the **Manager Users** tab, click the **Manage Users** link.
2. Search and select a user and click **Continue**.

   Result: The **Users** settings tabs display,
3. Click the **De-roster** tab, as shown in the following figure.



4. Click **De-roster**.
5. Click **OK** to confirm that you want to de-roster the user.

LMS User Roles

Access to Lotus Learning Management System is managed by granting users permissions to perform specific tasks in the LMS for example permission to view the Student Catalog or permission to roster a new user. Permissions are managed in user roles.

Lesson topics

This lesson presents the following topics:

- Viewing and modifying roles
- Adding a new role
- Using auto assignments

LMS Roles

When a new user is rostered, they have, by default, student access. This gives them access to read the Course Catalog and enroll in courses that allow self-enrollment.

To manage access, the administrator assigns each user one or more roles. A **role** is a set of permissions. There are five default roles:

- **Anonymous** – By default, this is a user who can display the Home tab, including the Course Catalog. Anonymous users can enroll in some online courses but those courses must be enabled for anonymous enrollment.
- **Student** – This is a user who enrolls in courses, attends courses, and views progress data on their own course activities.
- **Manager** – This is a manager in the organization, as identified in the LDAP directory. A manager is not specific to LMS. This role enables managers to view progress and enrollment data on users that report to the manager. In some instances, the manager may be required to approve a user's enrollment in a course, curriculum, or certificate.

  Note: When a user is rostered in LMS, their manager is automatically rostered.
- **Instructor** – This person is assigned to teach courses, both online and classroom-based. The instructor views their own teaching calendar, and can view enrollment and progress data of students enrolled in their courses. By default, the instructor role is not enabled to do course enrollment.
- **Administrator** – This person is a user who has permission to view and modify all settings in the LMS.

Administrators can create additional roles or modify the existing roles.

Viewing and Modifying Roles

Permissions are managed for groups of users by assigning users a user role. A user **role** is a set of permissions. For example, the default student role includes permissions to view the Student Catalog where available courses are displayed, but not have permissions to view the Course Catalog, where courses are mastered.

View and modify roles

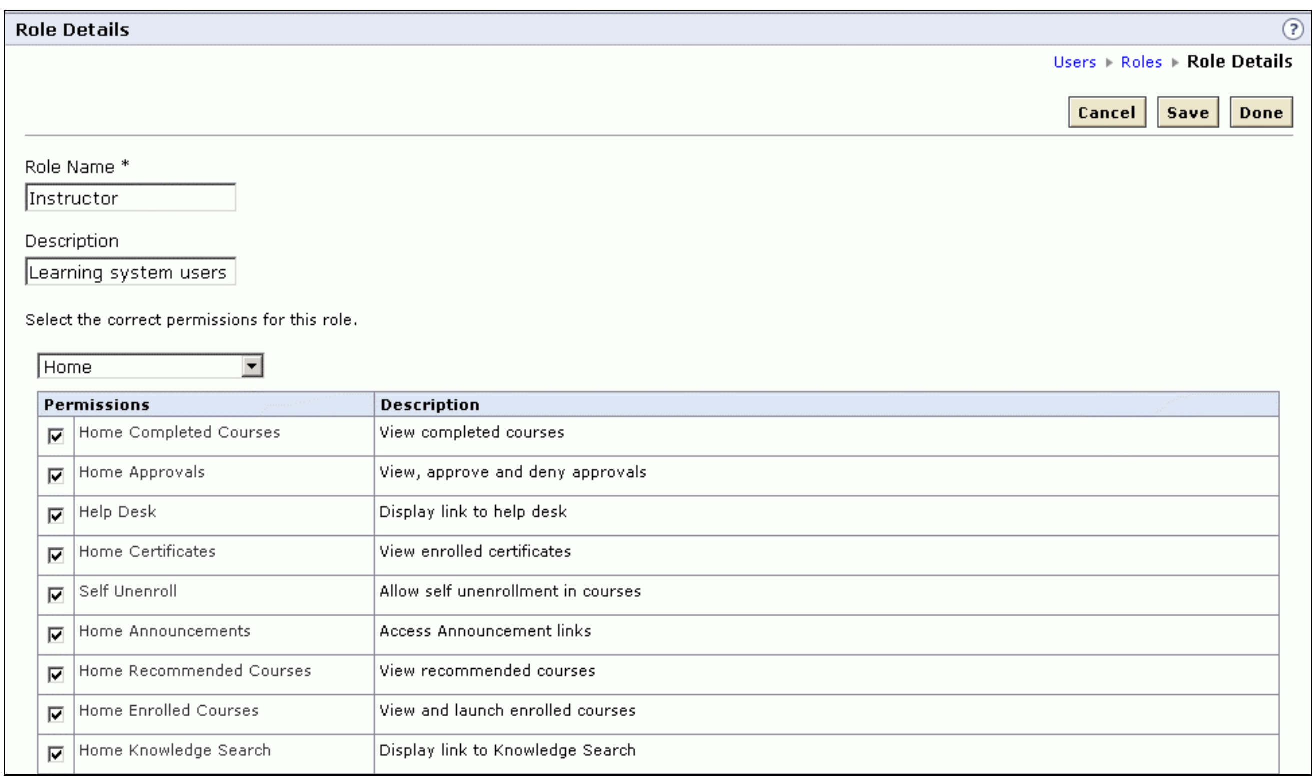
You may need to modify a User Role. For example, you may want instructors to manage their own course enrollment. By default, the Instructor role has no permissions in the Users module.

Follow these instructions to view and modify roles.

1. From the **Users** tab, click **Manage Roles**.
2. Click a **Role Name** link, for example, **Instructor**.

   Result: The **Manage Roles** screen displays, showing the Instructor permissions for the **Home** module.

   The following diagram shows a portion of this screen.



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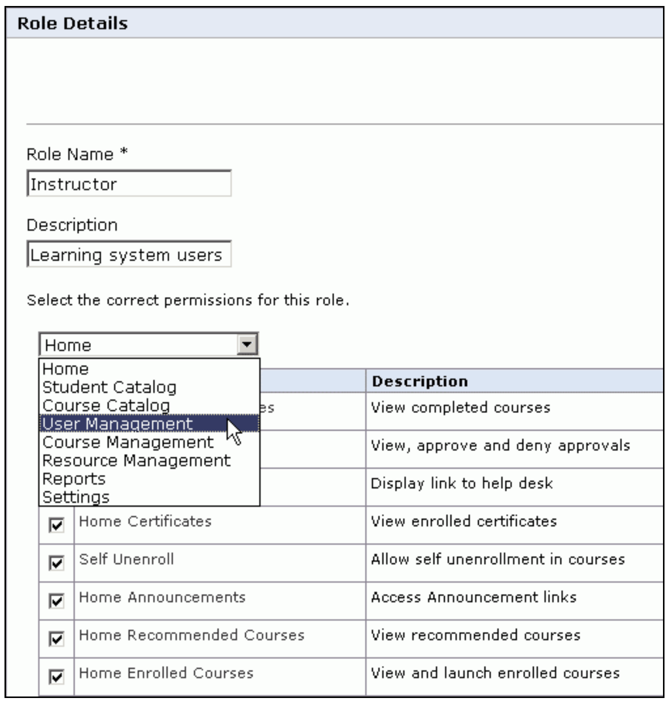
Viewing and Modifying Roles...*(continued)*

View and modify roles…

3. To modify the Instructor permissions, select or deselect permissions and click **Save**.
4. Select a new LMS module in the picklist, as shown in the figure below.



Result: The permissions list for the selected LMM module displays.

5. Continue to view and modify permissions as required.
6. Click **Done** to close the window.

Caution

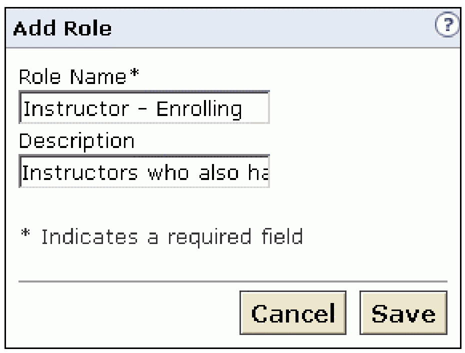
You must click **Save** after making modifications to a permissions list before displaying a new LMM module permissions list.

Adding a New Role

There may be instances when you need to create a new User Role to limit or extend permissions for some users. For example, you may only wish to enable only some instructors to manage their own course enrollment. In this instance, you can create a new role and select the appropriate permissions.

Add a new role

1. In the **Manage Roles** window, click **Add Role**.
2. Enter a **Role Name** and description and click **Save**.



Result: The new role is added to the list of roles.

3. Click the new role name to display the permissions lists.
4. Select each Home module and enable the appropriate permissions.

Caution

You must click **Save** after making modifications to a permissions list before displaying a new LMM module.

5. Click **Done** to close the window.

Automatic Assignments

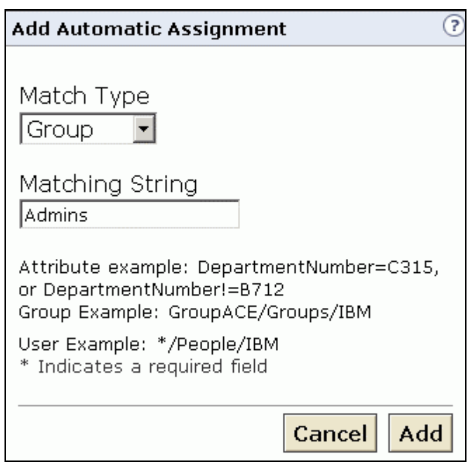
When new users are rostered in the LMM, they have the default role of student. If additional access is required, the administrator must assign roles to users. If many users are rostered, it can be time consuming to select each user and modify their user role. Automatic role assignment provides a way to assign user roles to groups of users.

Create an automatic assignment group

Follow these instructions to create an automatic assignment group.

1. From the **Users** module, click the **Manage Automatic Assignments** link.
2. Select a role name.
3. Click **Add Automatic Assignment**.

   Result: The following dialog box displays.

4. Select the **Match Type**.
5. Enter a **Match String** and click **Add**.

   Result: All users in the LDAP directory, whose records match the type and string, will be assigned the selected role and have the permissions provided by that role.

LMS Profiles

In addition to the user groups that are managed in the LDAP directory, the LMS administrator can create profiles to which users are assigned. There are two types of profiles used in LMS, the **auto-enrollment profile** and the **user profile**.

Lesson topics

This lesson presents the following topics:

- Auto-enrollment profiles
- User profiles

Auto-enrollment Profiles

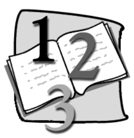
Auto-enrollment profiles are used to assign courses to students. Auto-enrollment profiles are used to describe the user as part of a larger group that has some common training goals.

To auto-enroll students in a course, the administrator:

1. Creates an auto-enrollment profile.
2. Assigns users and user groups to the auto-enrollment profile.
3. Selects the auto-enrollment profile when setting up enrollment for a course or curriculum.

Auto-enroll categories

Auto-enrollment profiles are hierarchical and organized by categories and profiles. For example, you may create categories to organize profiles by job title, geographic region, or job competency.



Create an auto-enrollment profile category

Follow these instructions to create an auto-enrollment category.

1. From the **Users** tab, click the **Auto-enrollment Profiles** link.
2. Click **Add Category**. The following dialog box displays.

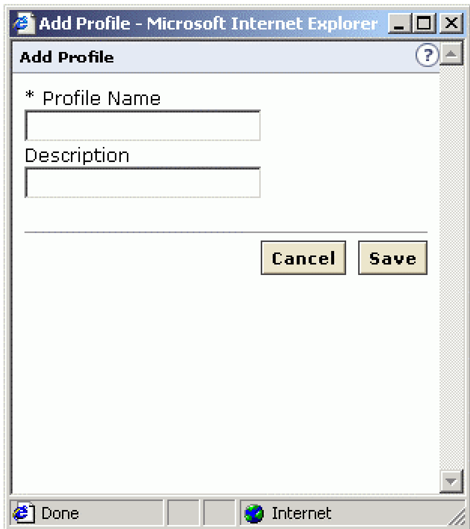
3. Enter a **Category Name** and **Description** and click **Save**.

Auto-enrollment Profiles...*(continued)*

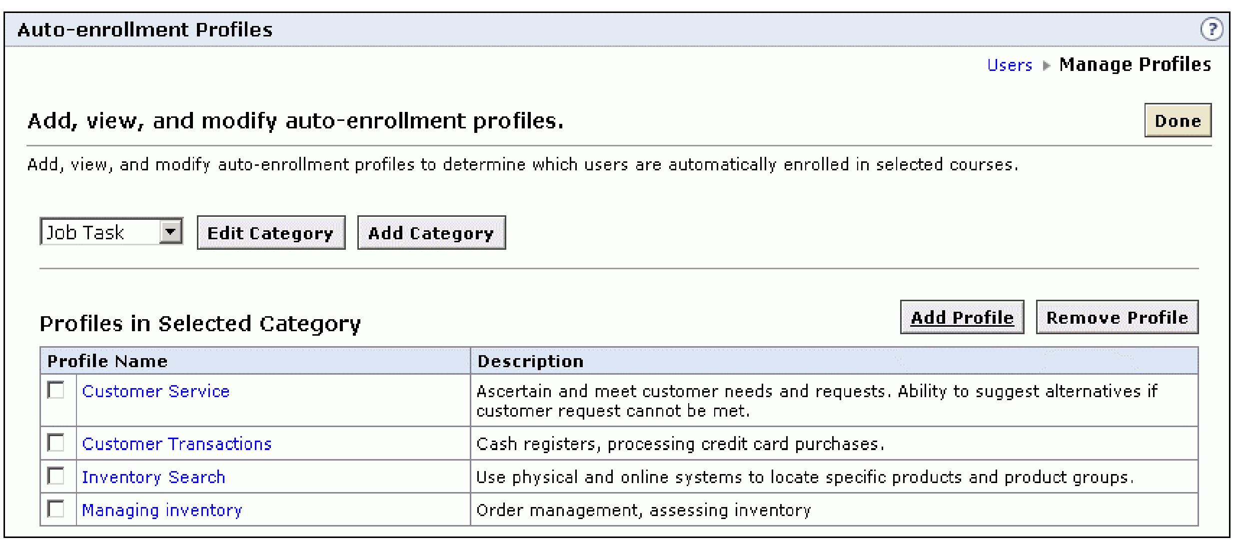
Create an auto-enrollment profile

Follow these instructions to create an auto=enrollment profile.

1. From the **Users** tab, click the **Auto-enrollment Profiles** link. Select the appropriate **Category**.
2. Click **Add Profile**. The following dialog box displays.



3. Enter a **Profile Name** and **Description** and click **Save**. The **Auto-enrollment Profiles** screen displays, similar to the one below.



4. Click **Done** to return to the **User** tab.

Auto-enrollment Profiles...*(continued)*

Create an auto-enrollment profile (optional exercise)

Create an auto-enrollment profile category and profile.

User Profile

A **user profile** is used to display a list of recommended courses in the students Home module, in the At a Glance view. There are two ways user profiles are associated with a user:

- The user chooses the user profiles.
- The administrator assigns the user profiles.

Courses are assigned to the user profile using the tools in the Course Management module.

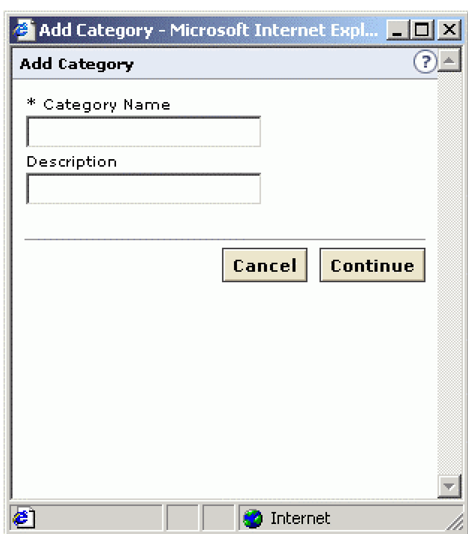
User profile categories

Like the auto-enrollment profiles, user profiles are hierarchical, organized by categories and profiles. For example, you may group courseware by its delivery method, delivery language, general content area, or level of difficulty.

Create a user profile category

Follow these instructions to create a user profile category.

1. From the **Users** tab, click the **User Profiles** link.
2. Click **Add Category**. The following dialog box displays.



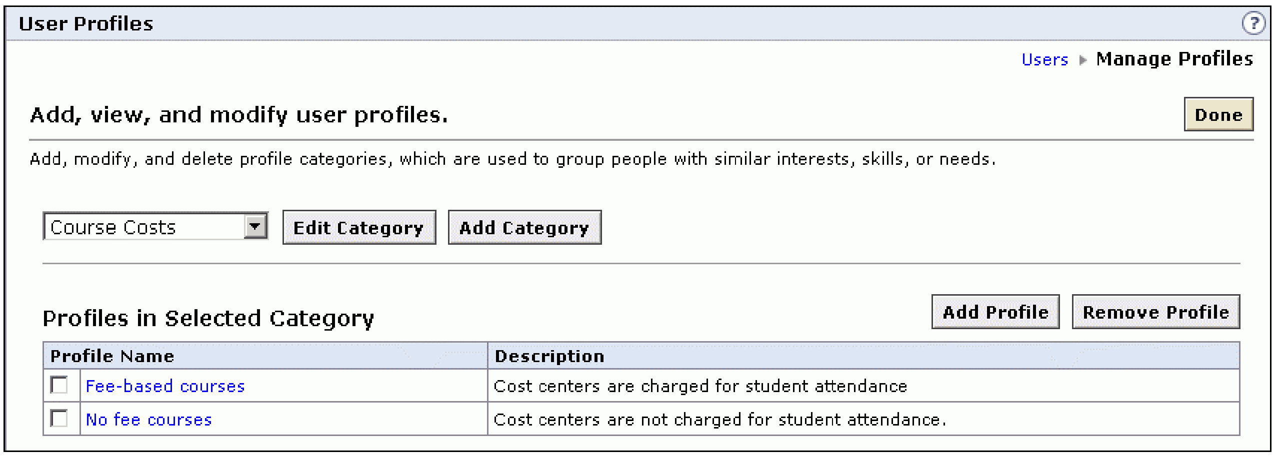
3. Enter a **Category Name** and **Description** and click **Save**.

User Profiles...*(continued)*

Create a user profile

Follow these instructions to create a user profile.

1. From the **Users** tab, click the **User Profiles** link. The **User Profiles** screen displays, similar to the one shown in the figure below.



2. Select the appropriate **Category**.
3. Click **Add Profile**. The following dialog box displays.

4. Enter a **Profile Name** and **Description** and click **Save**.
5. Click **Done** to return to the **Users** tab.

User Profiles...*(continued)*

Create a user profile (optional exercise)

Create a user profile category and profiles.

5 Modifying User Settings

After a user has been added to the LMS roster, the administrator can assign user settings including permissions, auto-enrollment profile, and user profile. Administrators can also remove users from the roster.

Lesson topics

This lesson presents the following topics:

- User settings
- Assigning roles
- Modifying user settings

User Settings

The user record in the LDAP directory contains user data including name, log on ID, password, and organizational unit. This information is read-only from LMS, that is, the administrator cannot change this data from the LMS interface.

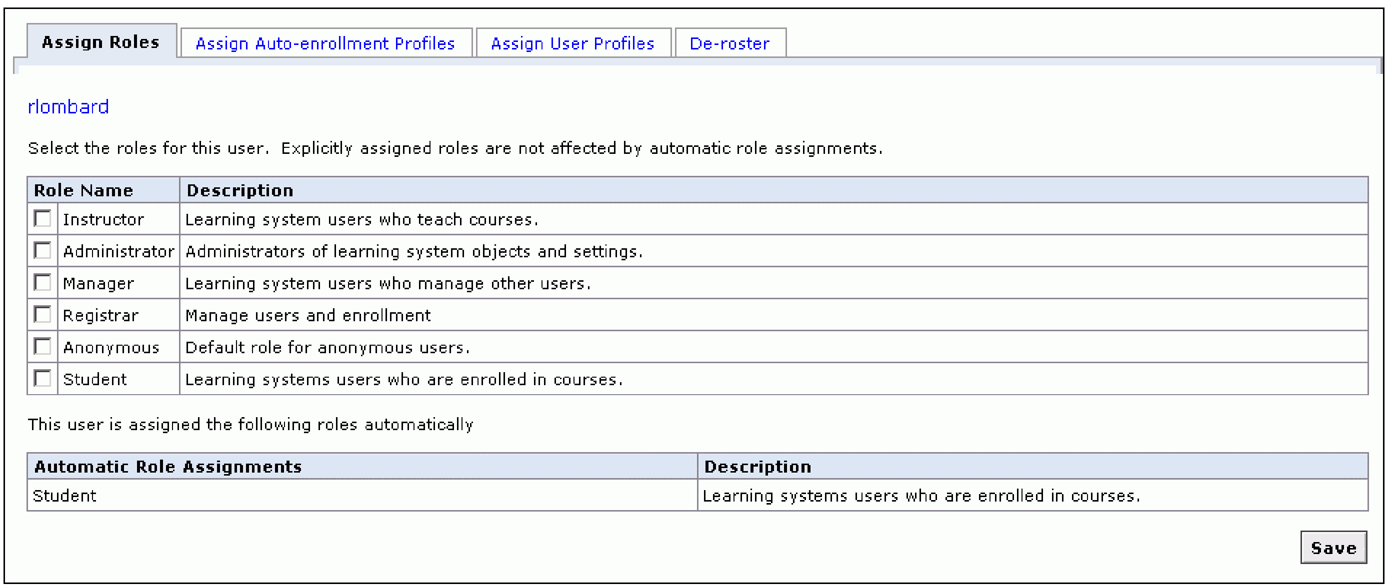
In addition to this information, LMS stores permissions settings that enable the user to access LMS functionality, profile data that facilitates auto-enrollment and user profiles that are used to display selected courses in the Course Catalog.

Change user settings

Follow these instructions to change user settings.

1. From the **Users** tab, click the **Manage Users** link.
2. Search and select one or more users and click **Continue**.

   Result: The following user settings pages display.



Assign Roles | Assign Auto-enrollment Profiles | Assign User Profiles | De-roster

rlombard

Select the roles for this user. Explicitly assigned roles are not affected by automatic role assignments.

Role Name	Description
☐ Instructor	Learning system users who teach courses.
☐ Administrator	Administrators of learning system objects and settings.
☐ Manager	Learning system users who manage other users.
☐ Registrar	Manage users and enrollment
☐ Anonymous	Default role for anonymous users.
☐ Student	Learning systems users who are enrolled in courses.

This user is assigned the following roles automatically

Automatic Role Assignments	Description
Student	Learning systems users who are enrolled in courses.

Save

3. Using the selections on the tabbed pages, the administrator can modify the user's settings. Click **Done** to save your changes.

Assigning Roles

To manage access, the administrator assigns each user one or more roles. A **role** is a set of permissions. There are five default roles:

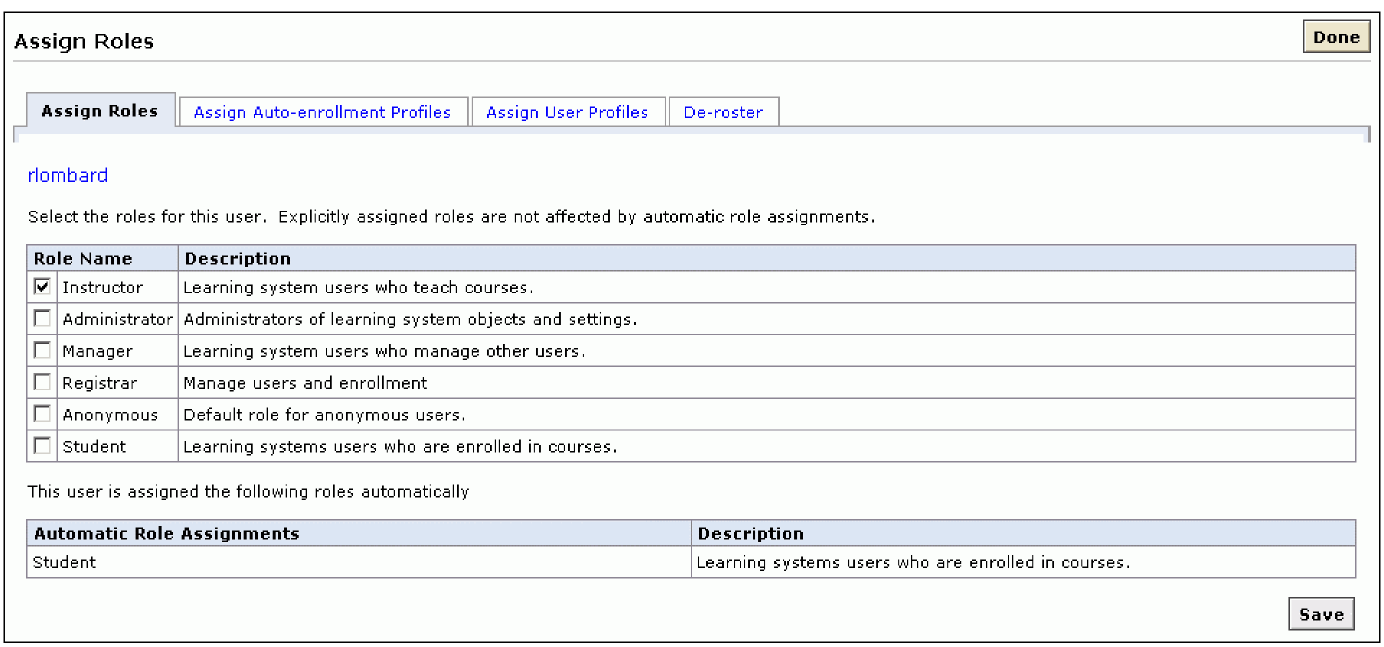
- Manager
- Student
- Instructor
- Anonymous
- Administrator

Administrators can create additional roles. See *Lesson 3: LMS User Roles* for more information about creating roles.

Assign a role

Follow these instructions to assign a role.

1. From the **Users** tab, click the **Manage Users** link.
2. Search and select one or more users and click **Continue**.
3. Select the **Assign Roles** tab. The following figure shows the **Assign Roles** tab.



4. Select the appropriate role and click **Save**.

Auto-Enroll

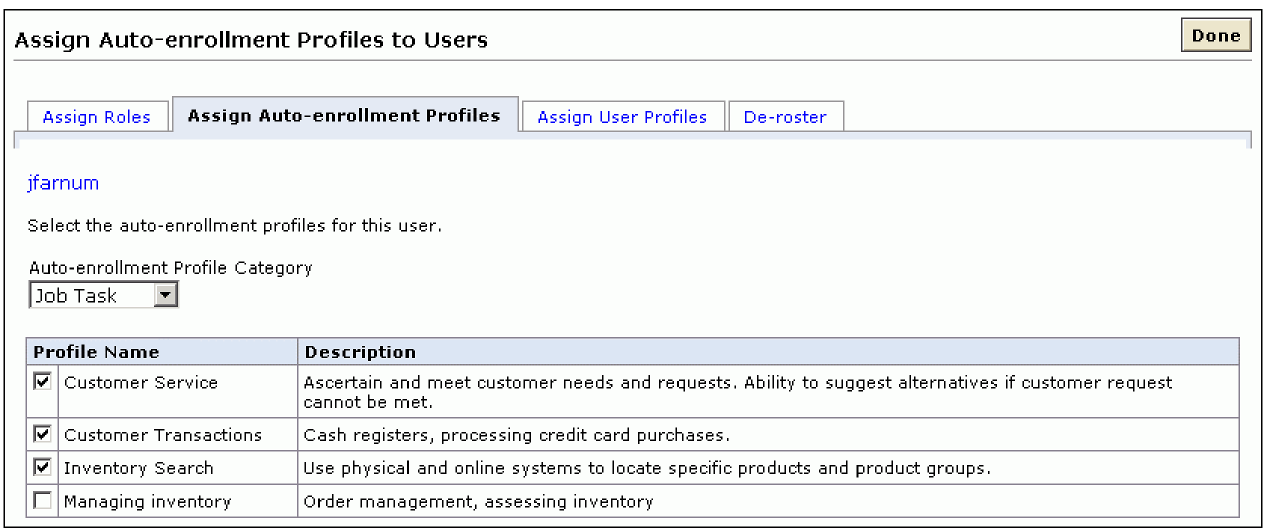
Users can be enrolled in courses automatically. To do this, users are assigned an **auto-enrollment profile**. This profile is then associated with the course and all users with that profile have student access to the course. See *Lesson 4:, LMS Profiles* for information on creating auto-enrollment profiles.

Assign a user to an auto-enrollment profile

Follow these instructions to assign a user to an auto-enrollment profile.

1. From the **Users** tab, click the **Manage Users** link.
2. Search and select one or more users and click **Continue**.
3. To assign an auto-enrollment profile to a user, click the **Assign Auto-enrollment Profiles** tab.

   The following figure shows the **Assign Auto-enrollment Profiles** tab with some sample profiles.



4. Select the appropriate **Auto-enrollment Profile Category**.
5. Select the appropriate **Profile Name** and click **Save**.

Assign User Profiles

User profiles are used to display a list of recommended courses in the student's **At a Glance** page. Students can select one or more user profiles to display recommended courses.

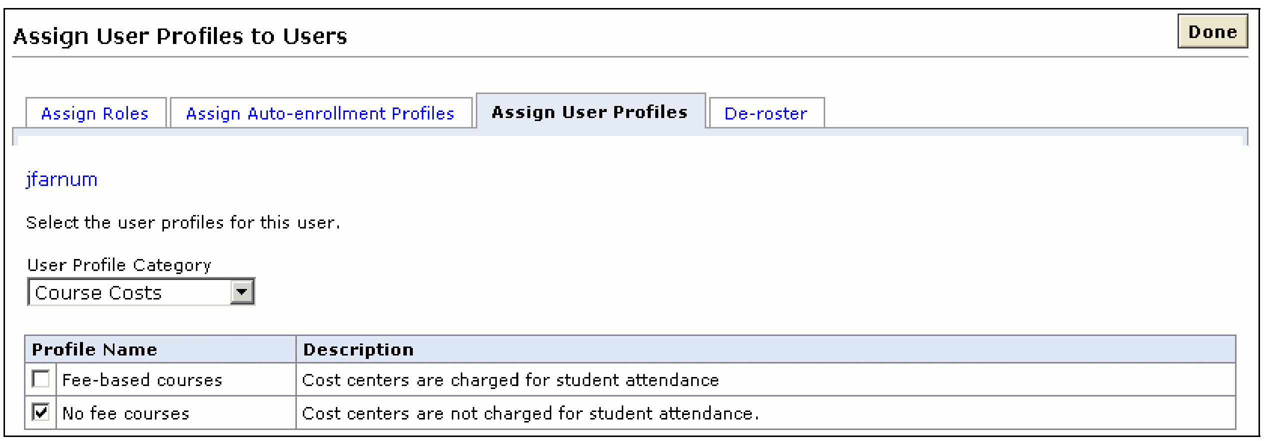
Administrators can select or modify the user profiles for a given user.

Assign a user profile to a user

Follow these instructions to assign a user profile to a user.

1. From the **Users** tab, click the **Manage Users** link.
2. Search and select one or more users and click **Continue**.
3. Click the **Assign User Profiles** tab.

   The following figure shows the **Assign User Profiles** tab with some sample profiles.



4. Select the appropriate **User Profile Category**.
5. Select the appropriate **Profile Name** and click **Save**.

Using Access Control

The Learning Management System uses roles and permissions to control access to the application's features. LMS uses access control to limit access to specific data. You use access control to regulate access to location and rooms, and Course Catalog data.

Lesson topics

This lesson presents the following topics:

- Using access control to restrict access to locations.
- Managing access to the Course Catalogs.

Locations and Rooms

Locations and rooms are physical resources that are managed in the LMS. A **location** is a building or site that houses learning spaces called rooms. A **room** can be a classroom, meeting room, lab, auditorium, or other reservable space where learning activities occur. Locations and rooms are managed in the Resources module in the LMM.

Managing access to locations

Locations and rooms are managed by individuals called contacts. **Contacts** are responsible for scheduling room spaces and supporting a learning event by providing required equipment such as projectors or telephones. In large organizations, there will be several location and room contacts.

It may be necessary to limit the access to room data in LMS. To do this, the administrator specifies the level of access that is permitted for a specific room or location.

Specifying access

There are three parameters that are defined to enforce access control to locations:

- Level of operation – Defines the tasks the user can perform. The levels are: **read**, **write**, **manage**.
- Match Type – specifies how users will be selected (by name, group, attribute).
- Match string – identifies which users are able to access the data.

Locations and Rooms...*(continued)*

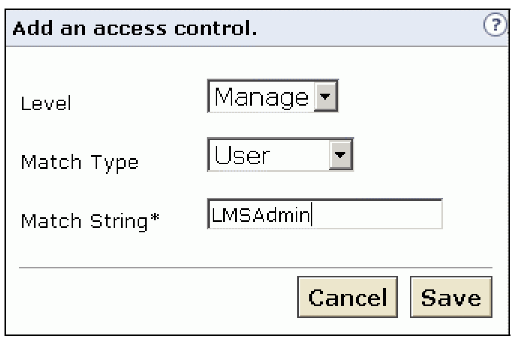
Enforce access control of locations

Follow these instructions to enforce access control.

1. From the **Resources** tab, click the **Manage Location** link.
2. Search and select the desired location.
3. Click **Continue**.
4. Click **Edit**.
5. Click the **Access Control** tab.
6. Click **Add**.

   Result: The **Add an access control** dialog box displays.
7. Enter the **Level**, **Match Type**, and **Match String** and click **Save**.

   The figure below shows access control parameters that enable the LMSAdmin user with manage privileges for this location.



8. Click the **Resources** tab to close the **Location** window.

Managing Access to the Course Catalogs

There are two catalogs: Course Masters Catalog and Course Offerings Catalog. Each catalog is a hierarchical structure of folders. Administrators can regulate access to areas of the catalog folders using the access control settings.

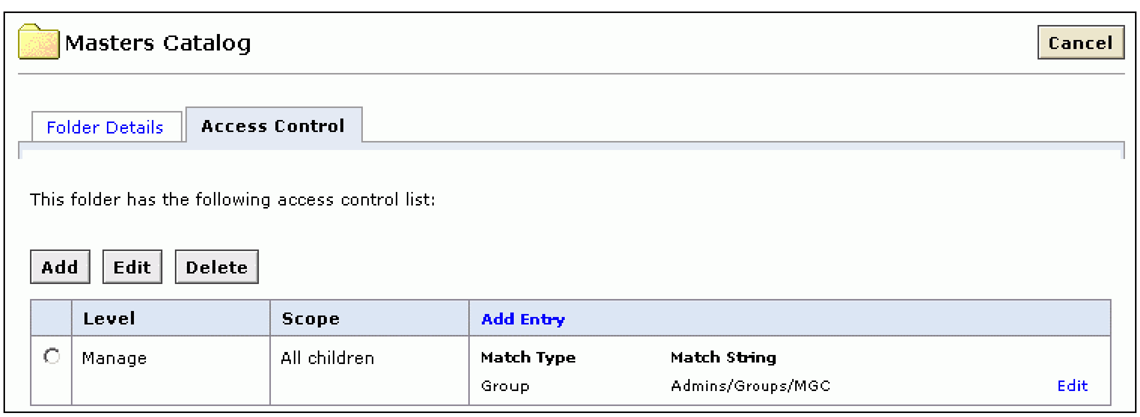
There are four specifications that must be defined to enforce access control:

- Level of operation – Defines the tasks the user can perform. The levels are: **read**, **write**, **manage**.
- Scope – Specifies the extent to which the access is extended. Two levels are provided:
  - All children.
  - Immediate children.
- Match Type – selects the property that will be searched.
- Matching String – defines the property value that is accepted. Matching strings are case sensitive. This includes the qualifier, for example, LdapId=lmsadmin.

Enforce access control of Course Master Catalog

Follow these instructions to enforce access control of the Course Master Catalog.

1. From the **Course Catalog** tab, click the **Manage Masters Catalog** link.
2. Click the folder icon next to the desired Masters Catalog.
3. Click the **Access Control** tab. The following figure shows the **Access Control** tab.



4. Click **Add**.

(continued on next page…)

Managing Access to Course Catalogs...(*continued*)

Enforce access control of Course Master Catalog…

5. Enter the access parameters in the new access window and click **Save**. The figure below shows access for all users in the **Instructor Group** to read the Masters Catalog.