Liferay Portal 4.0 - User Guide

Joseph Shum

Alexander Chow

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Preface

This document is intended as a reference guide for Liferay Portal 4.0. It is still a work in progress and currently at Release Candidate 1. Contributions are welcome. Please email `<jshum@liferay.com>` to provide documents that you have written and would like to contribute back to the community. Topic suggestions are also welcome.

Need Help? Forums: http://forums.liferay.com

Tracker: http://support.liferay.com

Mailing List: Subscribe [http://lists.sourceforge.net/lists/listinfo/lportal-development] or Browse [http://sourceforge.net/mailarchive/forum.php?forum=lportal-development] Please search through the mailing list first if you have an issue.

The mailing list contains a lot of information because we've been using it for many years. However, its threading is limited and does not allow you to continue a conversation that started a few months ago. We've switched to user forums [http://forums.liferay.com] so the community can have a better place to discuss their experiences with Liferay.

If you find a bug or have a new feature request, please post it on our tracker [http://support.liferay.com].

We also offer professional support services where your company can be assigned a Liferay developer that will ensure that your questions are answered promptly so that your project is never compromised. Purchased support always gets first priority. This business model allows us to build a company that can contribute a great portal to the open source community.

If your company uses Liferay, please consider purchasing support. Liferay has an extremely liberal license model (MIT, very similar to Apache and BSD), which means you can rebundle Liferay, rename it, and sell it under your name. We believe free means you can do whatever you want with it. Our only source of revenue is from professional support and consulting.

Chapter 1. User Administration

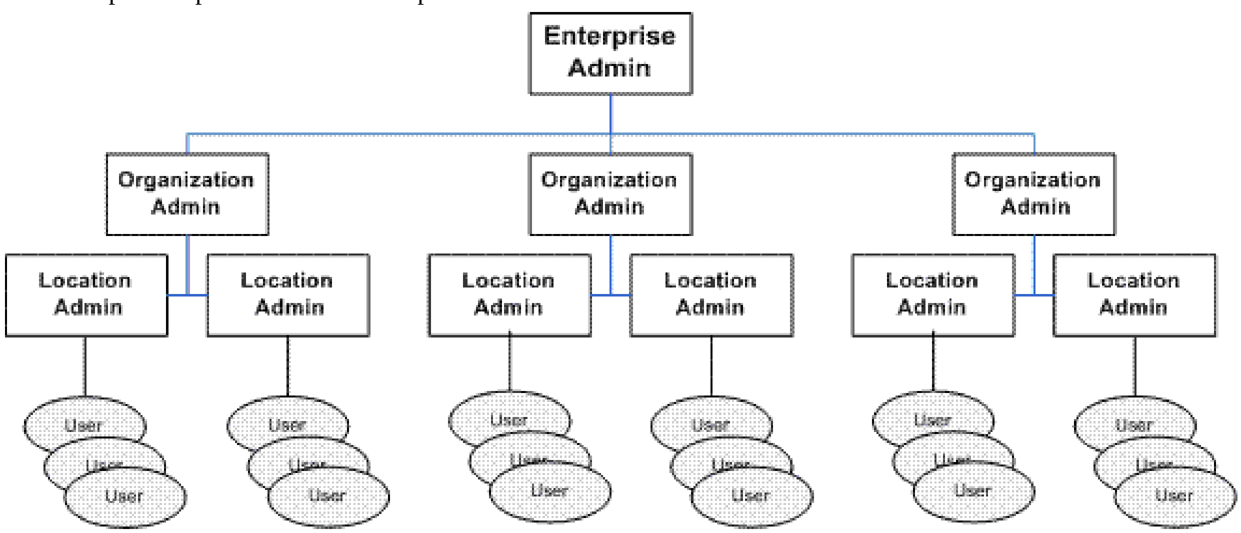
We will begin with an introduction to some new functionality in Liferay 4.0. This chapter will give an in depth tutorial on the Enterprise Admin, Organization Admin, and Location Admin portlets. Step-by-step instructions and screen shots are provided to guide users through various administration functions which are new to portal.

Overview

This document on user administration portlets begins by providing an overview of entities involved in the administration portlets. This will be followed by instructions on using each of the three administration portlets.

Administration Portlets

Liferay Portal provides three administration portlets: Enterprise Admin, Organization Admin, and Location Admin. The three portlets provide different scopes of administration.



As illustrated by the diagram, the Enterprise Admin Portlet has the highest level of administrative functions. It has access to all organizations, locations, and users. The Organization Admin Portlet can access its own information and information for any locations and users that belong to it. The Location Admin Portlet can access its own information and any users that belong to it. This user guide will only address user administration functions contained within the various administration portlets. See the Permissions Users Guide for instructions on assigning permissions to existing portlets for individual organizations, locations, and users.

User

A user is an individual who performs tasks using the portal.

Organizations and Locations

Organizations and locations represent a corporate hierarchy. An organization represents a parent corporation. An example would be Liferay USA. A location represents a child corporation of an organization, often times distinguished by its geographic location. Organizations can have any number of locations. Example locations of the Liferay USA organization might be Liferay Chicago, Liferay San Francisco, and Liferay Los Angeles. A user can only belong to a single organization and location.

User Groups

A user group is a grouping of users. Unlike organizations and locations, user groups have no context associated with them. They are purely a convenience grouping that aids administrators in assigning permissions and roles to a group of users instead of individual users or assigning a group of users to a community. A user can belong to any number of user groups. Both roles and individual permissions can be assigned to user groups, and every user that belongs to that user group will receive the role or permission.

Enterprise Administration Portlet

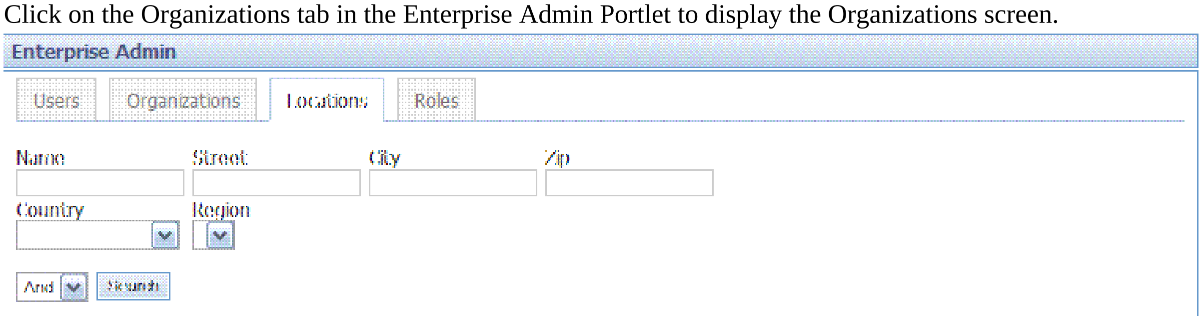
Enterprise Administration has the highest level of administrative functions. It has access to all organizations, locations, and users.

How to view, search, add, and edit organizations

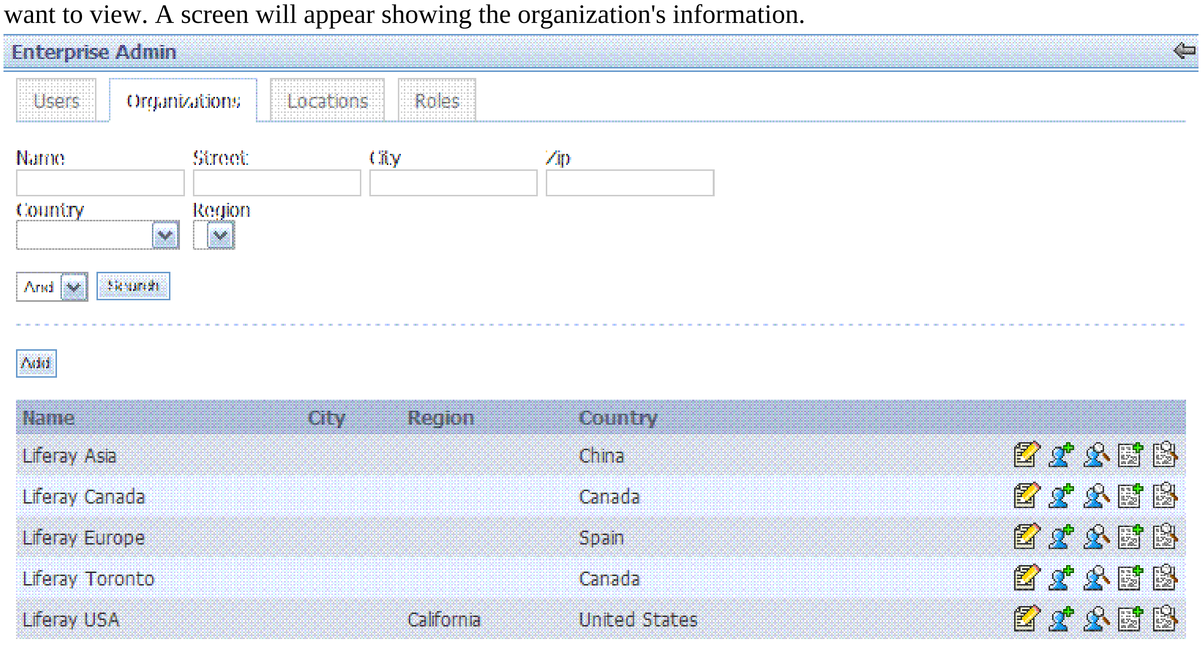
Organizations are at the top of the group hierarchy and allows the configuration of permissions to a broad number of users in the system.

Viewing Organizations

1. Click on the Organizations tab in the Enterprise Admin Portlet to display the Organizations screen.



2. A listing of organizations appears on the bottom of the Organizations Screen. Click on an organization you want to view. A screen will appear showing the organization's information.

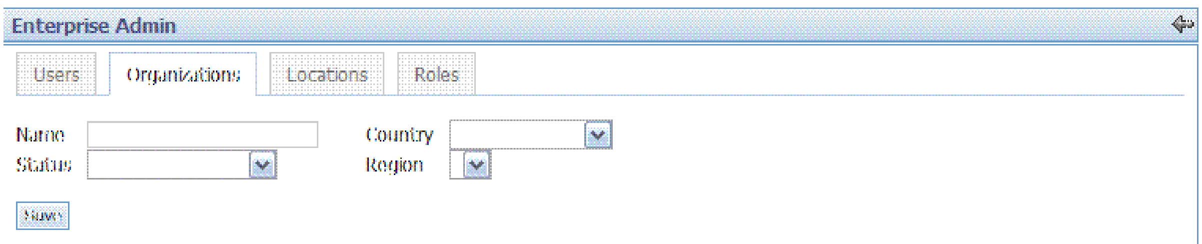


Searching Organizations

1. Click on the Organizations tab in the Enterprise Admin Portlet.
2. Type organization information in the input fields and select from the menu options.
3. Click **Search**.

Adding Organizations

1. Click on the **Organizations** tab in the Enterprise Admin Portlet.
2. Click **Add**.
3. Enter organization's information in the **Name** input field.
4. Select from the **Country**, **Status**, and **Region** menus.
5. Click **Save**.



6. To add additional organizations, repeat steps 1-5.

Editing Organizations

You can edit organization information.

1. Click on the **Organizations** tab in the Enterprise Admin Portlet.
2. Locate organization you want to edit. Click the Edit icon () to the right of the organization.
3. Type changes in the **Name** input field. Select from the **Country**, **Status**, and **Region** menus to make changes.
4. Click **Save**.

How to view, search, add, and edit locations

Locations can give you broad permissioning and grouping within an organization.

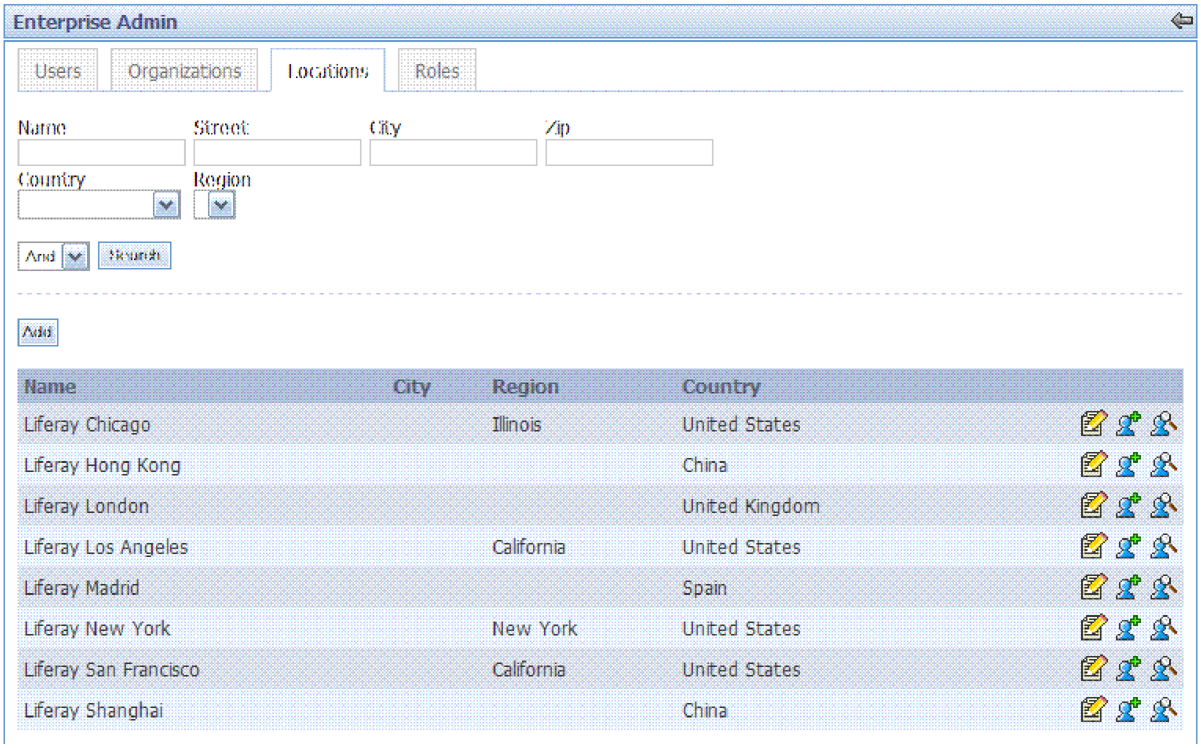
Viewing Locations

You can view a list of all locations or you can view a list of locations that belong to a specific organization.

Viewing All Locations

1. Click on the **Locations** tab in the Enterprise Admin Portlet.

2. A listing of locations appears on the bottom of the Locations Screen. Click on a location you want to view.



Viewing locations that belong to a specific organization

1. Click on the **Organizations** tab in the Enterprise Admin Portlet.

2. Click on the**View Locations** ( ) icon located to the right of an organization. A screen will appear showing all organizations that belong to a specific organization.

Searching Locations

1. To search for locations, click on the **Locations** tab in the Enterprise Admin Portlet.

2. Type Location information in the input field and select from the menu options.

3. Click **Search**.

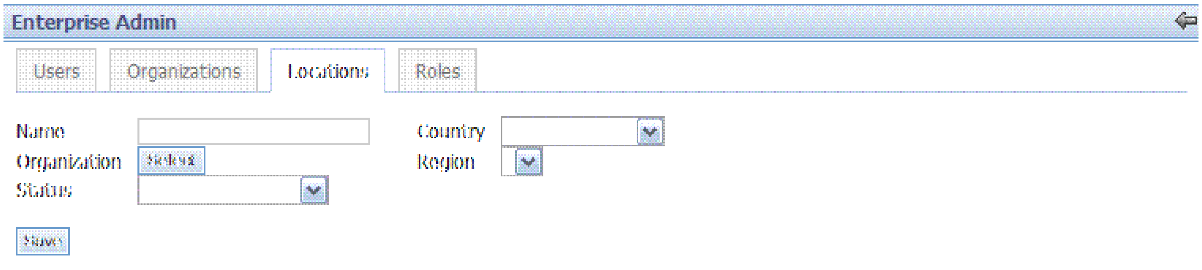
Adding Locations

1. Click on the **Locations** tab in the Enterprise Admin Portlet.

2. Click **Add**.

3. Enter location information in **Name** input field.

4. Select from the **Country**, **Organization**, **Status**, and **Region** menus.



5. Click **Save**.

6. To add additional locations, repeat steps 1-5.

   You can also add organizations through the Organizations Screen

Editing Locations

1. To edit location information, click on the **Locations** tab in the Enterprise Admin Portlet.

2. Locate the location you want to edit. Click the **Edit** icon () on the right of the location.

3. Type changes in the Name input field. Select from the **Country**, **Organization**, **Region**, and **Status** menu to make changes.

4. Click **Save**.

How to view, search, add, edit, deactivate, restore, and delete users

Viewing Users

Viewing All Users

You can view active and deactivated users.

1. Click on the **Users** tab in the Enterprise Admin Portlet.

2. A listing of users appears on the bottom of the Users Screen. Click on a user you want to view. To see a list of additional users, click on the page numbers.

3. To view deactivated users, click on the **Active** menu from the Users Screen, and select **No**.

4. Click **Search** to display a listing of deactivated users.

5. Repeat step 2.

Viewing users that belong to a specific organization

1. Click on the Organizations tab.
2. Click the **View User** icon ( ) located to the right of an organization.
3. Click on a user to view.

Viewing users that belong to a specific location

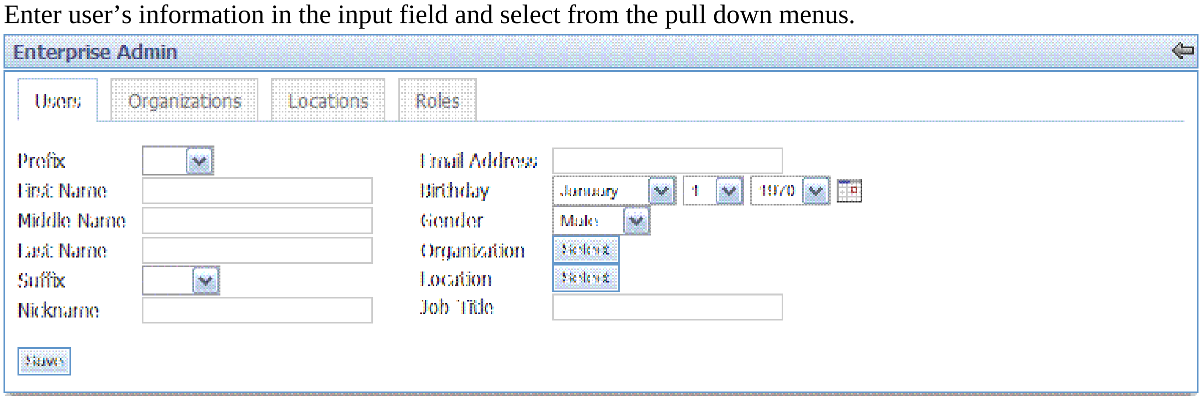
1. Click on the **Locations** tab.
2. Click the **View User** icon ( ) located to the right of a location.
3. Click on a user to view.

Searching Users

1. To search for a user, click on the **Users** tab in the Enterprise Admin Portlet.
2. Type user name in the input fields and select from the menus. To search for an active user, select **Yes** from the **Active** menu. To search for a deactivated user, select **No**.
3. Click **Search**.

Adding Users

1. To add a user, click on the **Users** tab in the Enterprise Admin Portlet.
2. Click **Add**.
3. Enter user's information in the input field and select from the pull down menus.



4. Click **Save**.
5. To add additional users, repeat steps 1-4.

You can also add users through the Location Screen:

a. Click on the **Locations** tab in the Enterprise Admin Portlet.

b. Click on the **Add User** icon ( ) located to the right of the location you want to add a user to.

c. Enter user’s information in the input fields and select from the pull down menus.

d. Click **Save**.

e. To add additional users, repeat steps 1-4

You can also add users through the Organization Screen:

a. Click on the **Organizations** tab in the Enterprise Admin Portlet.

b. Click on the **Add User** icon ( ) located to the right of the organization you want to add a user to.

c. Enter user’s information in the input field and select from the pull down menus.

d. Click **Save**.

e. To add additional users, repeat steps 1-4.

Editing Users

1. To edit user information, click on the **Users** tab in the Enterprise Admin Portlet.
2. Click on the user you want to edit. A screen will appear displaying the user's innormation.
3. Type changes in the **First Name**, **Middle Name**, **Last Name**, **Email**, and **Job Title** input fields. Select from the **Prefix**, **Suffix**, **Birthday**, **Gender**, **Location** menus to make changes.
4. Click **Save**.

Deactivating Users

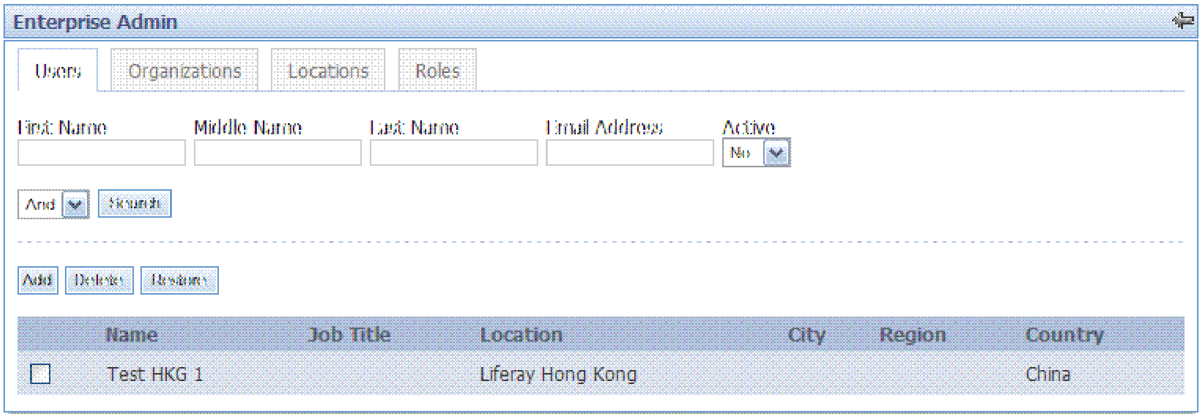
1. To deactivate a user, click on the **Users** tab in the Enterprise Admin Portlet.
2. Click on the box located next to the user you want to deactivate.
3. Click **Deactivate**.
4. To deactivate all users listed on a page, click the box located next to the Name column. Click **Deactivate**.
5. A screen will appear asking if you want to deactivate the selected users. Click **OK** to delete. Click **Cancel** if you do not want to deactivate the selected users.

Restoring Users

1. To restore deactivated users, click on the **Users** tab in the Enterprise Admin Portlet.

2. Click on the **Active** menu, and select **No**.

3. Click **Search** to display a listing of deactivated users.



4. Click on the box located next to the user you want to reactivate.

5. Click **Restore**.

6. To restore all users listed on a page, click in the box located next to the Name column.

7. Click **Restore.**

Deleting Users

1. To delete a user you need to first deactivate the user. Follow instructions in the **Deactivating Users** section to deactivate a user.

2. Click on the **Users** tab in the Enterprise Admin Portlet.

3. Click on the **Active** menu, and select **No**.

4. Click **Search** to display a listing of deactivated users.

5. Click on the box located next to the user you want to delete.

6. Click **Delete**.

7. To delete all users listed on a page, click the box located next to the Name column.

8. Click **Delete**.

9. A screen will appear asking if you want to permanently delete the selected users. Click **OK** to delete. Click **Cancel** if you do not want to delete the selected user.

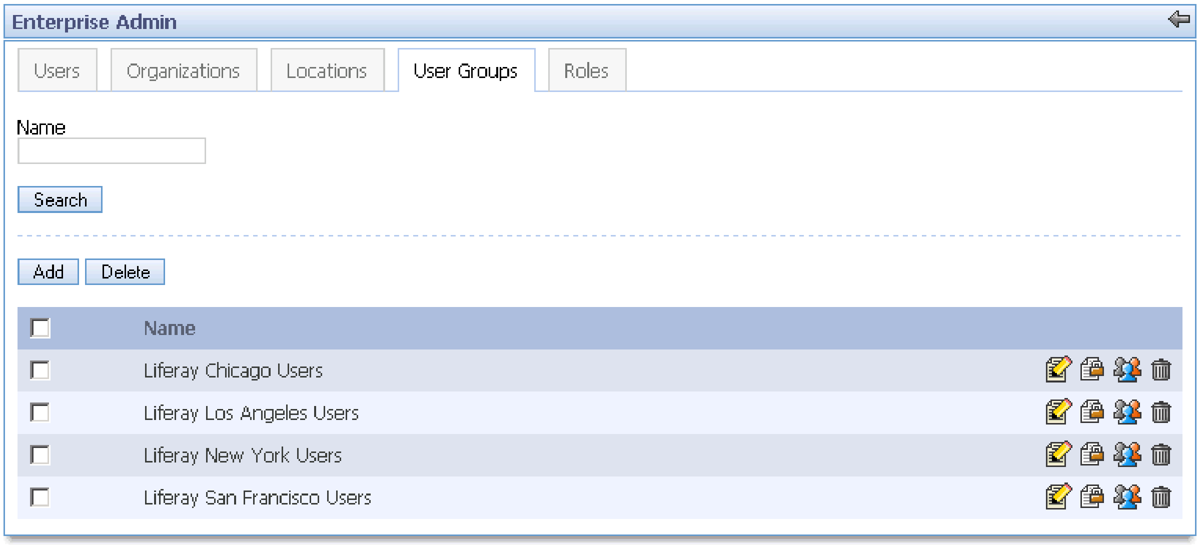
How to view, search, add, edit, delete, and assign user groups

User Groups can be used to group users to simplify the process of assigning roles and permissions to a number of users and to simplify the process of assigning a number of users to a community.

Viewing User Groups

1. Click on the **User Groups** tab in the Enterprise Admin Portlet.

2. A listing of user groups appears on the bottom of the screen. Click on a user group you want to view. NOTE: Clicking on a user group will only display the name and description of the group. To actually view the users associated with the user group, click on the **Assign** icon.



Searching User Groups

1. To search for user groups, click on the **User Groups** tab in the Enterprise Admin Portlet.

2. Type a user group name in the "Name" input field.

3. Click **Search**.

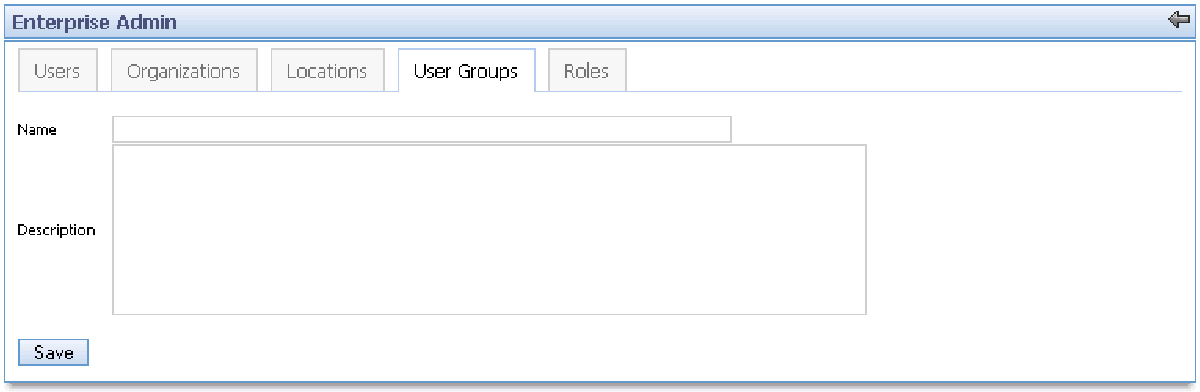
Adding User Groups

1. Click on the **User Groups** tab in the Enterprise Admin Portlet.

2. Click **Add**.

3. Enter a name for the user group in the **Name** input field.

4. Optionally, enter a description for the user group in the **Description** text area.



5. Click **Save**.

6. To add additional user groups, repeat steps 1-5.

Editing User Groups

1. To edit user group information, click on the **User Groups** tab in the Enterprise Admin Portlet.

2. Locate the user group you want to edit. Click the **Edit** icon ( ) on the right of the user group.

3. Type changes in the **Name** input field and, optionally, the **Description** text area.

4. Click **Save**.

Deleting User Groups

1. Click on the **User Groups** tab in the Enterprise Admin Portlet.

2. To delete a single user group, click on the **Delete** icon ( ) to the right of the user group. Click **OK** to delete.

3. To delete multiple user groups, check the boxes located to the left of the user groups you want to delete.

4. Click the **Delete** button.

5. To delete all user groups listed on a page, check the box located next to the Name column.

6. Click the **Delete** button.

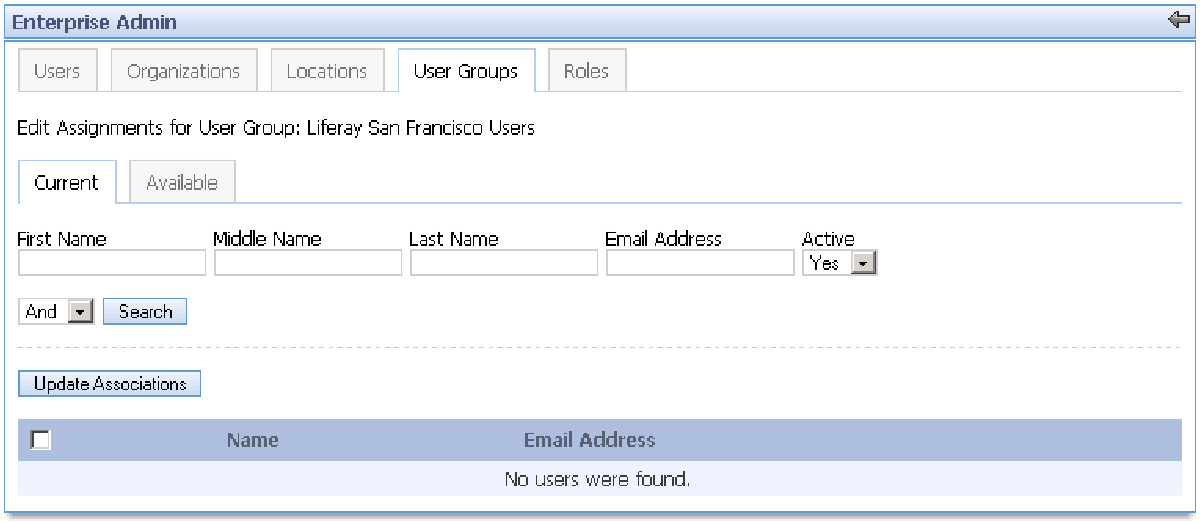
7. A screen will appear asking if you want to permanently delete the selected user groups. Click **OK** to delete. Click **Cancel** if you do not want to delete the selected user groups.

Assigning Users to User Groups

1. Click on the **User Groups** tab in the Enterprise Admin Portlet.

2. Click on the **Assign** icon ( ) to the right of the user group. For this example, assume the **Assign** icon for the

Liferay San Francisco Users user group was clicked. The following screen is displayed.



3. Click on the **Available** tab to list all of the available users in the system. For this example, we are only interested in the users with "SFO" in their name

4. Search for the desired users using the search form. For this example, enter "sfo" into the **Last Name** input field and click **Search**.

5. Check the boxes to the left of the desired users. If you would like to select all of the users on the page, check the box next to the Name column.

6. Click the **Update Associations** button.

7. To confirm the desired users were successfully associated with the user group, click on the **Current** tab.

Organization Administration Portlet

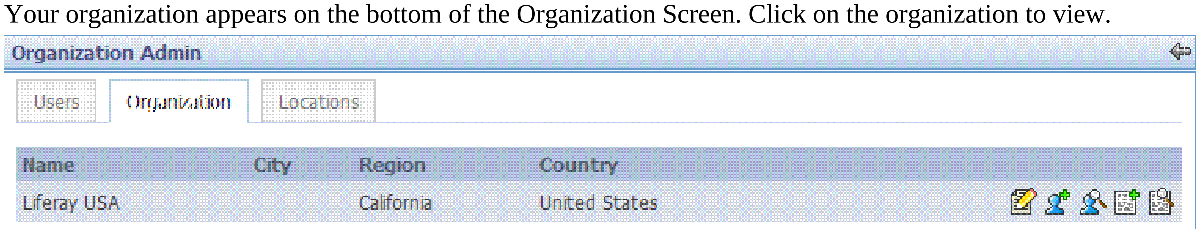
Various functions can be performed to your organization and to location and users that belong to your organization.

How to view and edit your organization

Viewing your organization

1. Click on the **Organizations** tab in the Organization Admin portlet to display the Organization Screen.

2. Your organization appears on the bottom of the Organization Screen. Click on the organization to view.



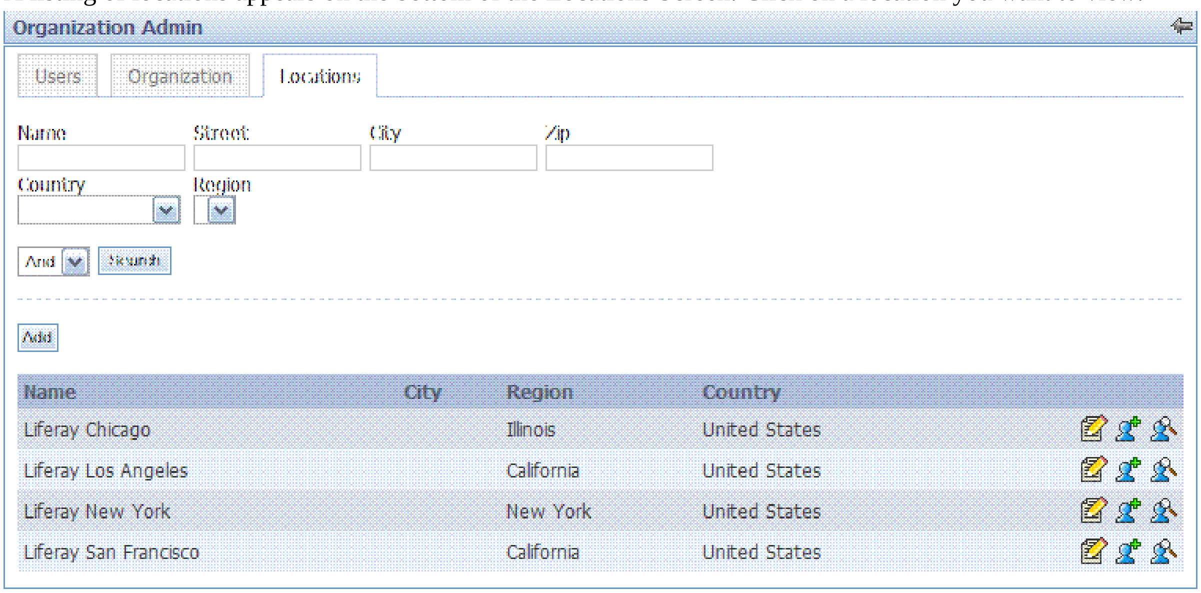
Editing your organization

1. To edit your organization, click on the **Organizations** tab in the Organization Admin Portlet.
2. Click the **Edit** icon ( ) located to the right of the organization listing.
3. Type changes in the Name input field. Select from the **Country**, **Region**, and **Status** menu to make changes.
4. Click **Save**.

How to view, search, add, and edit locations that belong to your organization

Viewing Locations

1. To view the location you belong to, click on the **Locations** tab in the Organization Admin Portlet.
2. A listing of locations appears on the bottom of the Locations Screen. Click on a location you want to view.



3. A location information screen will appear.

   You can also view locations through the Organization Screen:

   a. Click on the **Organization** tab in the Organization Admin Portlet.

   b. Click on the **View Location** icon ( ) located to the right of your organization.

   c. Click on a location to view.

Searching Locations

1. To search for locations that belong to your organization, click on the **Locations** tab in the Organization Admin Portlet.

2. Type location information in the text boxes and select from the menu options.

3. Click **Search**.

Adding Locations

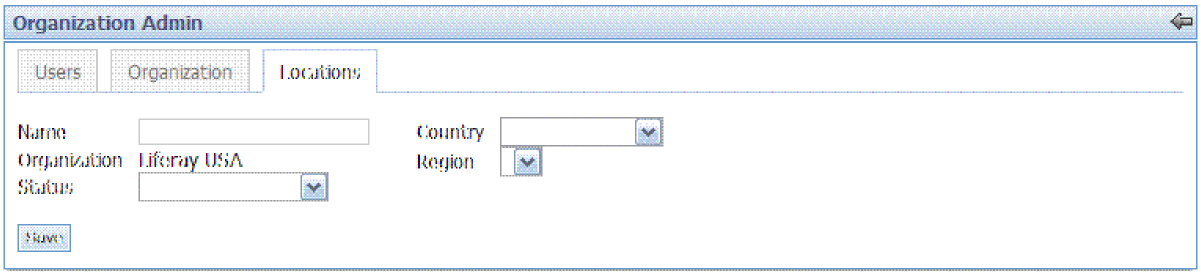
1. To add locations to your organization, click on the **Locations** tab in the Organization Admin Portlet.

2. Click **Add**.

3. Enter location information in **Name** input field.

4. Select from the **Country**, **Status**, and **Region** menus.

5. Click **Save**.



6. To add additional locations, repeat steps 1-5.

   You can also add locations through the Organization Screen:

   a. Click on the Organization tab in the Organization Admin Portlet.

   b. Click on the **Add Location** icon ( ) located to the right of the organization.

   c. Enter the location's information in the input fields and select from the menus.

   d. Click **Save.**

Editing Locations

1. To edit locations that belong to your organization, click on the **Locations** tab in the Organization Admin Portlet.

2. Locate the location want to edit. Click the **Edit** icon ( ) located to the right of the location listing.

3. Type changes in the Name input fields. Select from the **Country**, **Region**, and **Status** menu to make changes.

4. Click **Save**.

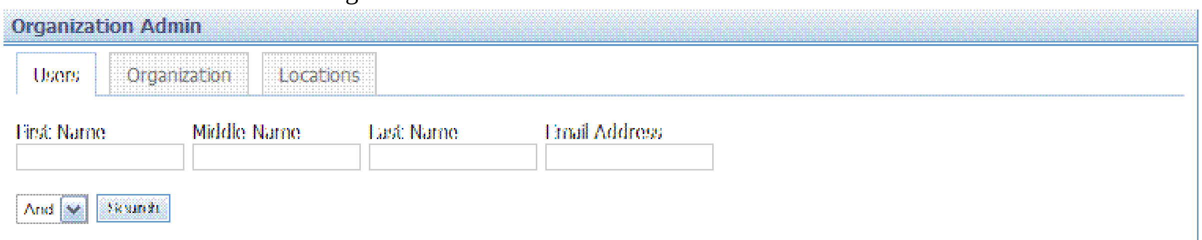
How to view, search, add, edit, and deactivate users that belong to your organization

Viewing Users

You can view all users that belong to your organization or view users that belong to a specific location.

Viewing All Users

1. Click on the **Users** tab in the Organization Admin Portlet.



2. A listing of users appears on the bottom of the Users Screen. Click on a user you want to view. To view additional users, click on the page numbers to see additional user listings.

   You can also view users through the Organization Screen:

   a. Click on the **Organization** tab in the Organization Admin Portlet.

   b. Click on the **View Users** icon) located to the right of the organization.

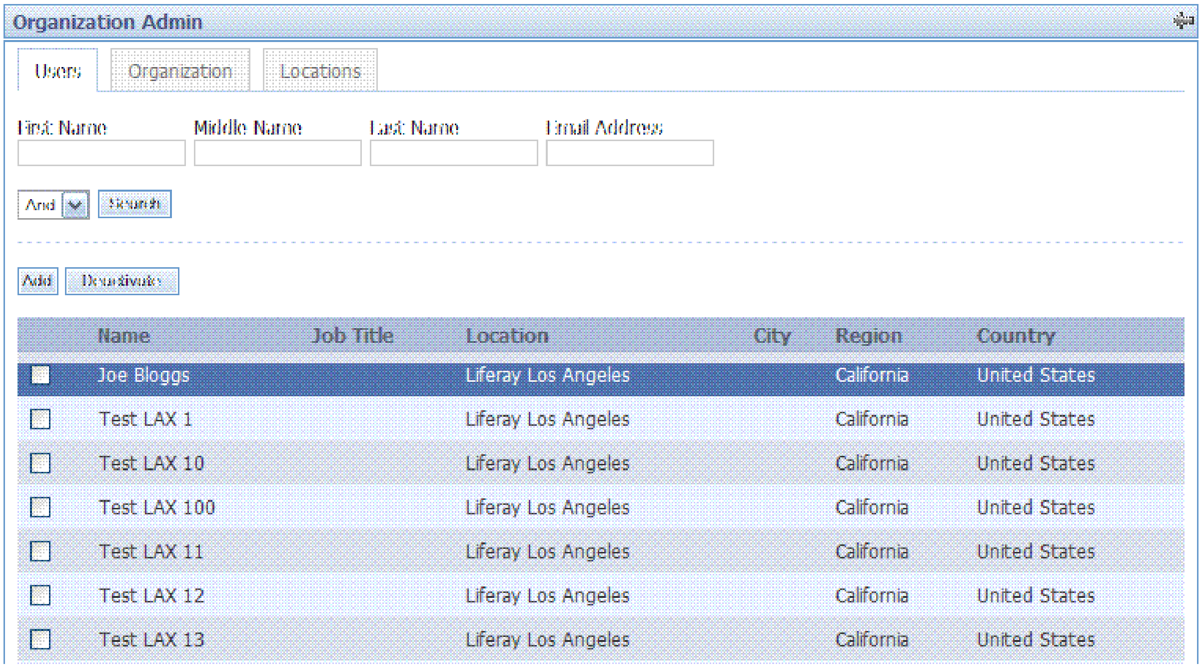
   c. Click on a user to view.

Viewing users that belong to a specific location

1. Click on the **Locations** tab.
2. Click on the **View Users** icon ( ) located to the right of a location.
3. Click on a user to view.

Searching Users

1. To search for users that belong to your organization, click on the **Users** tab in the Organization Admin Portlet.
2. Type user name in the input fields and select from the menu.



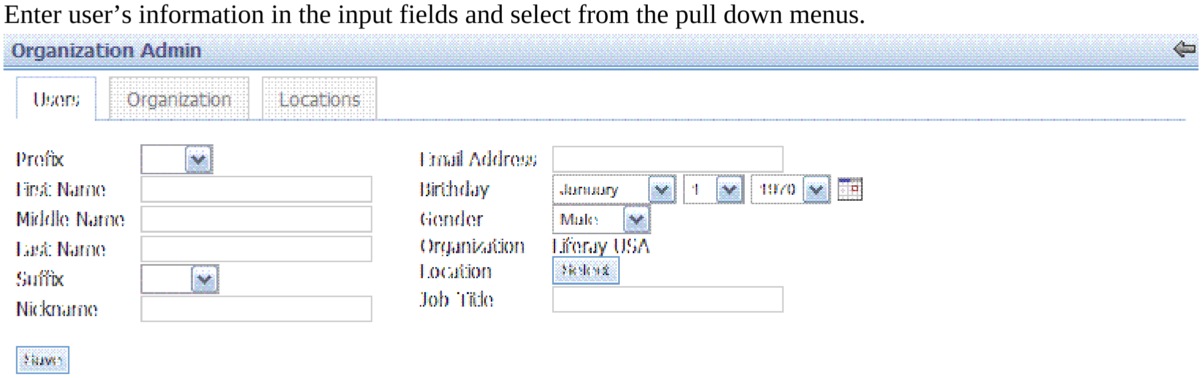
3. Click **Search**.

Adding User

1. To add users to your organization, click on the **Users** tab in the Organization Admin Portlet.

2. Click **Add**.

3. Enter user's information in the input fields and select from the pull down menus.



4. Click **Save**.

5. To add additional users, repeat steps 1-4.

You can also add users through the Organization Screen:

a. Click on the **Organizations** tab in the Organization Admin Portlet.

b. Click on the **Add User** icon () located to the right of the organization.

c. Enter user’s information in the input fields and select from the pull down menus.

d. Click **Save**.

e. To add additional users, repeat steps 1-4.

Editing User

1. To edit user information, click on the **Users** tab in the Organization Admin Portlet.
2. Click on the user you want to edit.
3. Type changes in the **First Name**, **Middle Name**, **Last Name**, **Email**, and **Job Title** input fields. Select from the **Prefix**, **Suffix**, **Birthday**, **Gender**, **Location** menus to make changes.
4. Click **Save**.

Deactivate User

1. To deactivate users, click on the **Users** tab in the Organization Admin Portlet.
2. Click on the box located next to the user you want to deactivate.
3. Click **Deactivate**.
4. To deactivate all users listed on a page, click the box located next to the Name column. Click **Deactivate**.
5. A screen will appear asking if you want to deactivate the selected users. Click **OK** to delete. Click **Cancel** if you do not want to deactivate the selected users.

How to view, search, add, edit, delete, and assign user groups

See section 2.4, but replace all references to the Enterprise Admin Portlet with Organization Admin Portlet.

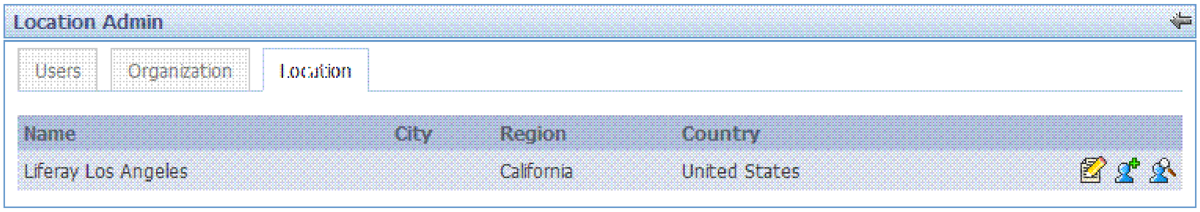
Location Administration Portlet

Various functions can be performed to your location and users that belong to a location.

How to view and edit your location

Viewing your location

1. To view your location, click on the **Locations** tab in the Locations Admin portlet.
2. Your location appears on the bottom of the Location Screen. Click on the location to view.



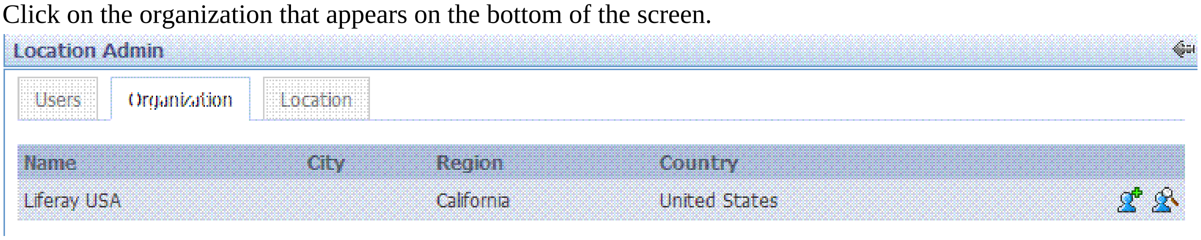
Editing your location

1. To edit your location, click on the **Location** tab in the Location Admin Portlet.
2. Click the **Edit** icon ( ) located to the right of the location listing.
3. Type changes in the Name input field. Select from the **Country**, **Region**, and **Status** menus to make changes.
4. Click **Save**.

How to view your organization

You can view your organization's services, email addresses, addresses, phone numbers, websites, and comments.

1. Click on the **Organization** tab in the Location Admin Portlet.
2. Click on the organization that appears on the bottom of the screen.



How to view, search, add, edit, and deactivate users

Viewing Users

1. Click on the **Users** tab in the Location Admin Portlet.
2. A listing of users appears on the bottom of the Users Screen. Click on a user you want to view. To view additional users, click on the page numbers and click on a user you want to view.

   You can also view users through the Location Screen:

   a. Click on the **Location** tab in the Location Admin Portlet.

   b. Click the **View Users** icon ( ) located to the right of the location. A User Screen will appear.

   c. Click on a user to view.

You can also view users through the Organization screen:

a. Click on the **Organization** tab in the Location Admin Portlet.

b. Click on the **View User** icon () located to the right of the organization.

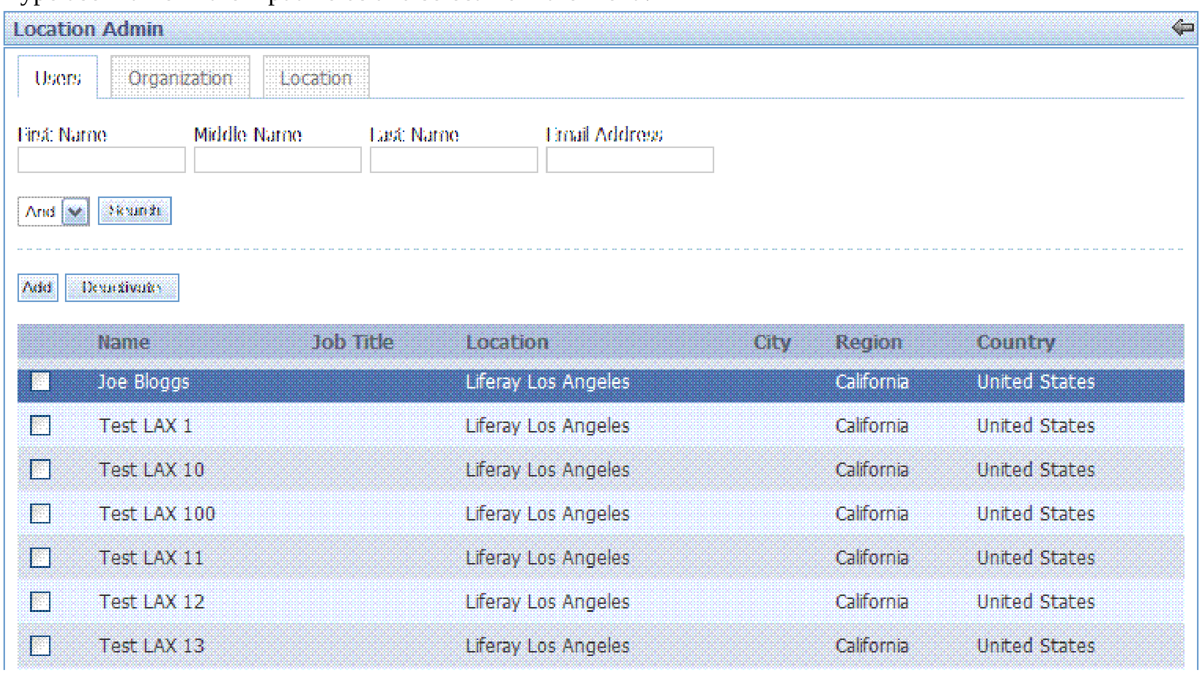
c. Click on a user to view.

Searching Users

You can search for a user listed or not listed on the display.

1. Click the **Users** tab in the Location Admin Portlet.

2. Type user name in the input fields and select from the menu.



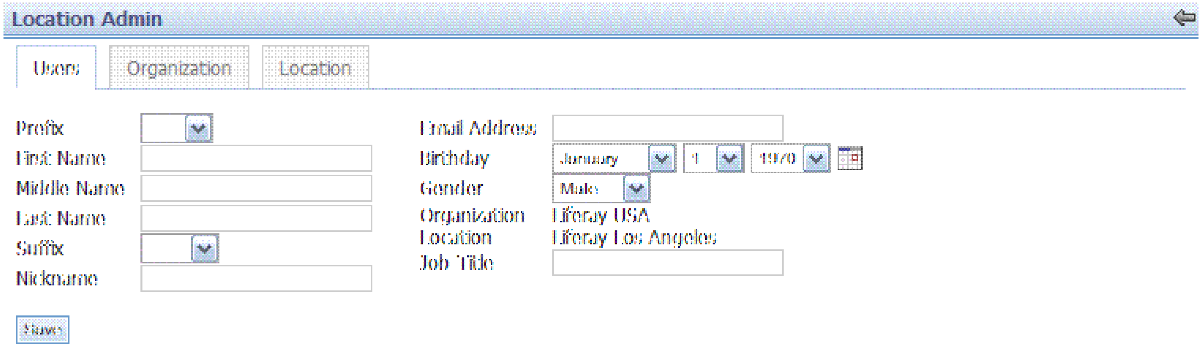
3. Click **Search**.

Adding Users

1. To add users, click on the **Users** tab in the Location Admin Portlet.

2. Click **Add**.

3. Enter user's information in the input fields and select from the pull down menus.



4. Click **Save**.

5. To add additional users, repeat steps 1-4.

You can also add user through the Organization Screen:

a. Click on the **Organizations** tab in the Location Admin Portlet.

b. Click on the **Add User** icon () located to the right of the organization.

c. Enter user's information in the input fields and select from the pull down menus.

d. Click **Save**.

e. To add additional users, repeat steps 1-4.

Editing Users

1. To edit user information, click on the **Users** tab in the Location Admin Portlet.

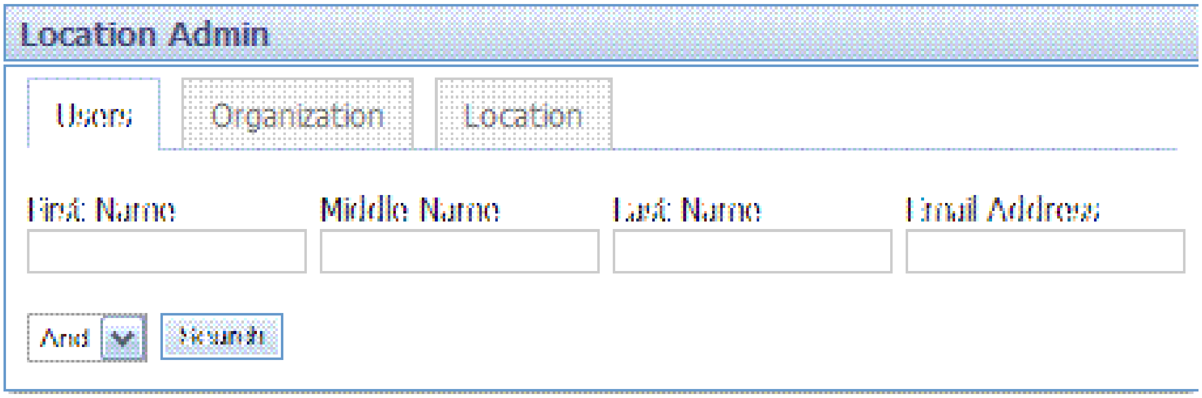
2. Click on the user you want to edit.

3. Type changes in the **First Name**, **Middle Name**, **Last Name**, **Email**, and **Job Title** input fields. Select from the **Prefix**, **Suffix**, **Birthday**, **Gender**, **Location** menus to make changes.

4. Click **Save**.

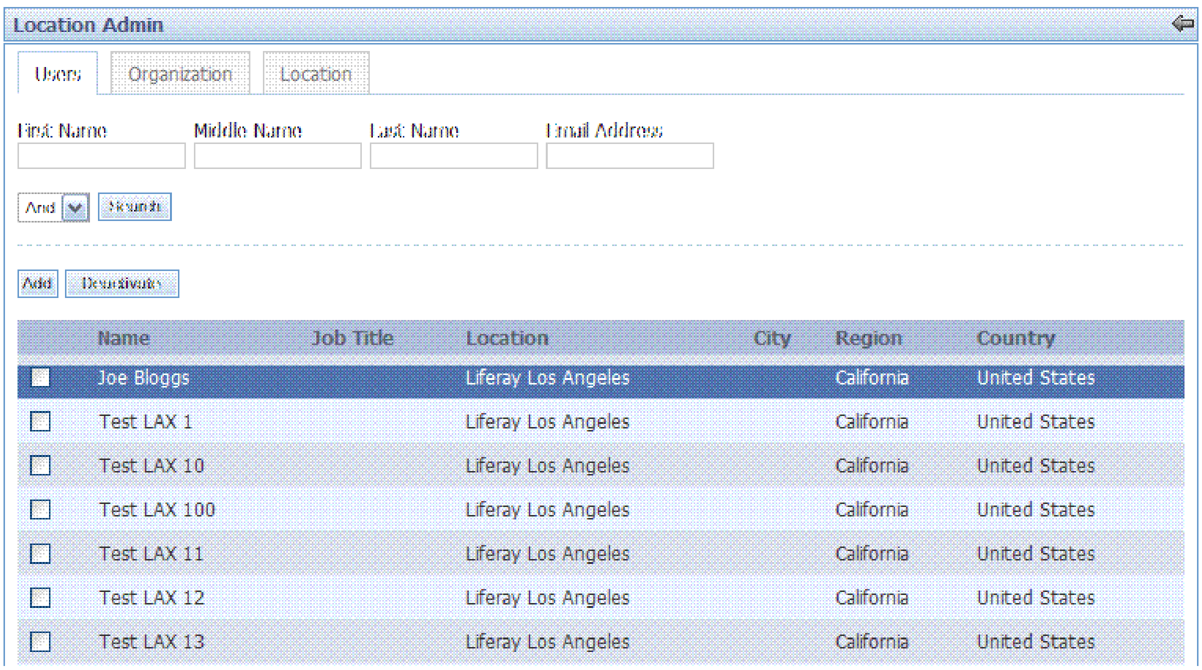
Deactivating Users

1. To deactivate users, click on the **Users** tab in the Location Admin Portlet.



2. Click on the box located next to the user you want to deactivate.

3. Click **Deactivate**.



4. To deactivate all users listed on a page, click the box located next to the Name column. Click **Deactivate**.

5. A screen will appear asking if you want to deactivate the selected users. Click **OK** to delete. Click **Cancel** if you do not want to deactivate the selected users.

How to view, search, add, edit, delete, and assign user groups

See section 2.4, but replace all references to the Enterprise Admin Portlet with Location Admin Portlet.

Chapter 2. Community Administration

This chapter will provide a reference for administering communities within Liferay Portal 4.0. It will include a discussion of how to create and manage communities, as well as how to create and manage the pages and users within a community. For a discussion of how to administer permissions for a community, please see Chapter 3.

Overview

A community is defined as a grouping of users by interest or skill set. For example, a “Pet Lovers" community would consist of users who have an interest in their pets, while a “Tech Support" community would consist of users who have the skills to provide technical support to an organization. A user can belong to any number of communities (NOTE: In previous versions of Liferay, communities were called groups). Communities are entities in and of themselves -- they do *not* belong to a specific organization or location.

A community contains a collection of pages. Each page consists of one or more portlets. Every community must have at least one page (represented by tabs) to be active, but there is no limit to how many pages it can have. Users can be assigned directly to a community or indirectly via an organization, location, or user group. User assignments will be discussed in a later section. Communities can either be open or closed. Open communities allow a user to join or leave them at any time without any type of approval from Administrators. Closed communities can only receive new users who are explicitly assigned by Administrators. These concepts will also be discussed in a later section.

Once a user has been assigned either directly or indirectly to a community, and assuming that community has at least one page defined, that user will see the community appear as an item in the **My Places** menu. By clicking on that menu item, the user will be taken to the selected community.

Communities are managed via the **Communities Portlet**. This portlet can be used to create, update, and delete communities; control the permissions of communities (including permission delegation); manage the pages of communities; assign users to communities (either directly or indirectly); and join or leave open communities. The pages of a community can either be managed via the Communities Portlet or by using the **Add Content** and **Page Settings** links. Examples of how all this works are provided in later sections.

As a general rule, objects in the portal can only belong to one community. For example, if a Message Board portlet is added to the "Support" community, all of the topics created through that portlet belong *only* to the "Support" community. There are only a few objects that don't belong to a single community such as organizations, locations, and user groups. These exception objects span all communities.

Communities Portlet

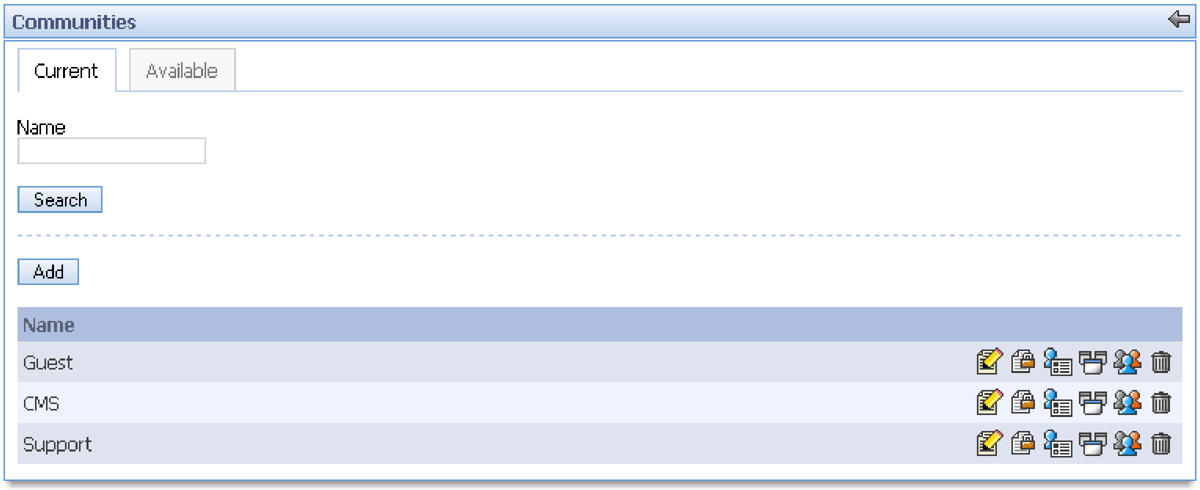
The Communities Portlet allows Administrators the ability to create and manage communities and their associated pages. Regular users can use the Communities Portlet to join or leave open communities

How to view, search, add, edit, and delete communities

Viewing Communities

1. Log in to the portal as an Administrator

2. Add the **Communities** portlet to your page (if it doesn't already exist) by clicking on the **Add Content** link, searching for "Communities", clicking the **Add** button next to the portlet, and clicking the **Finished** button). Click on the **Current** tab in the **Communities** portlet. The following screen is displayed.



3. In the screen above, notice that a listing of the current communities that the user belongs to appears on the bottom of the screen. If you were to click on the **Available** tab, you would see a listing of all the available communities that exist in the system.

Searching Communities

1. To search for communities on either the Current or Available tab, type a community name in the "Name" input field.

2. Click **Search**.

Adding Communities

1. On either the Current or Available tab, click **Add**.

2. Enter a name for the community in the **Name** input field.

3. Optionally, enter a description for the community in the **Description** text area. Check the **Open** box if you want users to be able to join and leave this community on their own.

4. Click **Save**.

5. To add additional communities, repeat steps 1-4.

Editing Communities

1. On either the **Current** or **Available** tab, locate the community you want to edit. Click the **Edit** icon ( ) on the right of the community.
2. Type changes in the **Name** input field and, optionally, the **Description** text area and the **Open** checkbox.
3. Click **Save**.

Deleting Communities

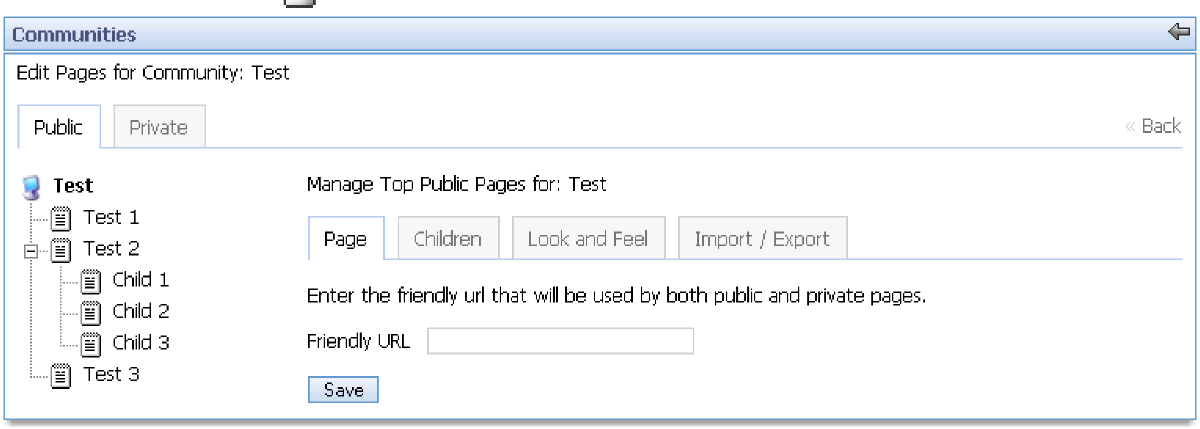
1. Click on the **Delete** icon ( ) to the right of the community.
2. A screen will appear asking if you want to delete the selected community. Click **OK** to delete. Click **Cancel** if you do not want to delete the selected community.

How to view, add, edit, permission, delete, manage look and feel for, and import/export pages for a community

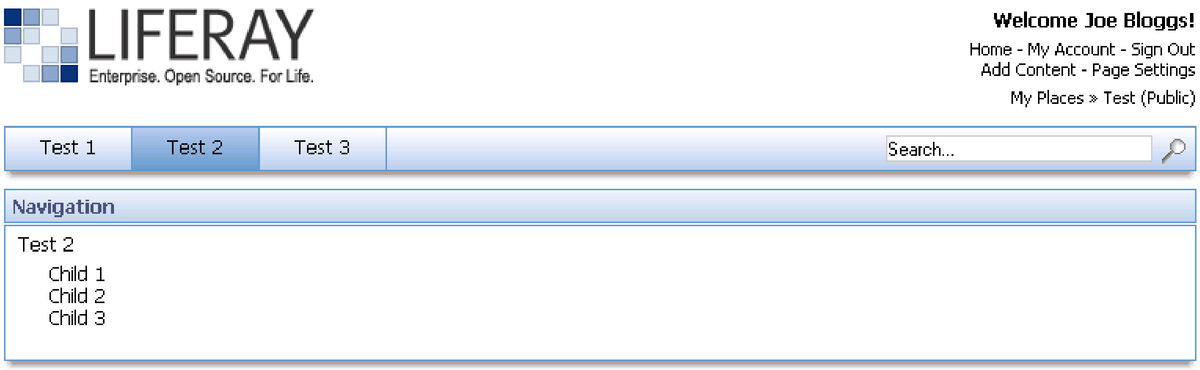
Without pages, a community is just an empty shell. All portlets in the portal are displayed on pages. They can be thought of as desktops on which you put your portlet applications. The desktops can be shared with other users, or they can be restricted for your own personal use. By default, if a user is given the Power User role, that user is given a personal community that only he/she can access, and he/she has permissions to do anything in that community. Under the **My Places** menu, that community will appear as the user's name.

Viewing Pages

1. Click on the **Pages** icon ( ) to the right of the community. A screen similar to the following is displayed.



2. In the screen above, notice that the pages that belong to the **Test** community are displayed in a tree structure on the left. Also notice that every page can have child pages. To actually view these pages in the portal, use the **My Places** menu to navigate to the **Test** community. The following screen is displayed.



3. In the screen above, notice that every top level page represented in the tree structure is represented by a tab in the portal. Also, every child page is represented in the **Navigation** portlet. The **Navigation** portlet is the only means to navigate to pages that are not at the top level. Therefore, make sure you put an instance of the **Navigation** portlet on every page that is not top level.

Adding Pages

1. Go back to the **Communities** portlet, and click on the **Pages** icon to the right of the community to which you want to add a page.

2. Decide if you want to add a Public or Private page.

   A public page is a page in your community that can be accessed by guests. As long as the guest has the appropriate URL (Friendly URLs will be discussed in the next section), the guest has permission to access any public page.

   A private page is a page in your community that can only be accessed by logged in users who are part of your community. If a user is not logged in (i.e., the user is a guest) or if a user does not belong to your community, then the user cannot access your private page.

   If you would like to create a public page, make sure the **Public** tab is selected. If you would like to create a private page, click on the **Private** tab.

3. In the left-hand tree structure, click on the node that should be the parent of your new page. If you want to create a top level page, make sure the community name is selected (it has the icon to the left of it). If you want to create a child page, make sure the appropriate parent page is selected.

4. Click on the **Children** tab.

5. Type the name of the new page in the **Name** input field. Optionally, you can change the **Type** and **Hidden** settings.

6. Click on the **Save** button.

7. Optionally, you can use the up and down arrows underneath the main form to update the display order of the child pages.

8. Use the **My Places** menu to go to your community, and click on the tab for your new page if it's a top level page, or use the **Navigation** portlet to get to your new page if it is a child page.

9. Use the **Add Content** link to add portlets to your new page.

Editing Pages

1. Go back to the **Communities** portlet, and click on the **Pages** icon to the right of the community for which you want to edit a page.
2. In the left-hand tree structure, find the page you want to edit and click on it.
3. Click on the **Page** tab.
4. You now have the option to change the Parent of the current page, rename the current page, change the display language of the current page, change the type of the current page, and change whether the current page is hidden or not. After making your changes, click the **Save** button.
5. You can also provide a Friendly URL for this page. Normally, portal URLs are very long and difficult to read because so many parameters are passed in through the URL. However, you can give your page a Friendly URL to make it easier to read and access.

   Before you can give your page a Friendly URL, your community must have a Friendly URL. Click on the community name in the left-hand tree structure, click on the **Page** tab, and put in a Friendly URL for your community (it must start with "/"). Click the **Save** button.

   Now go back to the page you're editing, click on the **Page** tab, and put in a Friendly URL for your page (it must also start with "/"). Click the **Save** button.

   If everything was done correctly, you can now access your page using the following URL pattern:

   - **http://***server-name***/web/***community-friendly-url*/*page-friendly-url*
6. If you already have a page in your community that is set up exactly like you want your current page set up, then you can use the **Copy Page** function. Just select the page that you want to copy from the drop-down next to **Copy Page** and click the **Save** button. Your current page will be an exact copy of the page you selected except for the page's name.

Permission Pages

1. An exhaustive discussion of page permissions is provided in Chapter 3. In particular, see section 3.9.3

Deleting Pages

1. Go back to the **Communities** portlet, and click on the **Pages** icon to the right of the community for which you want to delete a page.
2. In the left-hand tree structure, find the page you want to delete and click on it.
3. Click on the **Page** tab.
4. Click on the **Delete** button.

Manage Look and Feel for Pages

1. Go back to the **Communities** portlet, and click on the **Pages** icon to the right of the community for which you

want to manage the look and feel for a page.

2. In the left-hand tree structure, find the page you want to change the look and feel for and click on it.

3. Click on the **Look and Feel** tab.

4. You now have the option to select a new **Theme** or **Color Scheme** by clicking on the desired radio buttons.

Import/Export Pages

1. Go back to the **Communities** portlet, and click on the **Pages** icon to the right of the community for which you want to import/export pages.

2. Click on the **Import / Export** tab.

3. If you click on the **Export** button, it will export all of the pages, their layouts, their configurations, their look and feel, and their permissions to a LAR file (**L**iferay **AR**chive). By default, it uses the current timestamp as the name of the LAR file, but you have the option to change it. After you click the **Export** button, you will be prompted with a dialog window asking where to save the file.

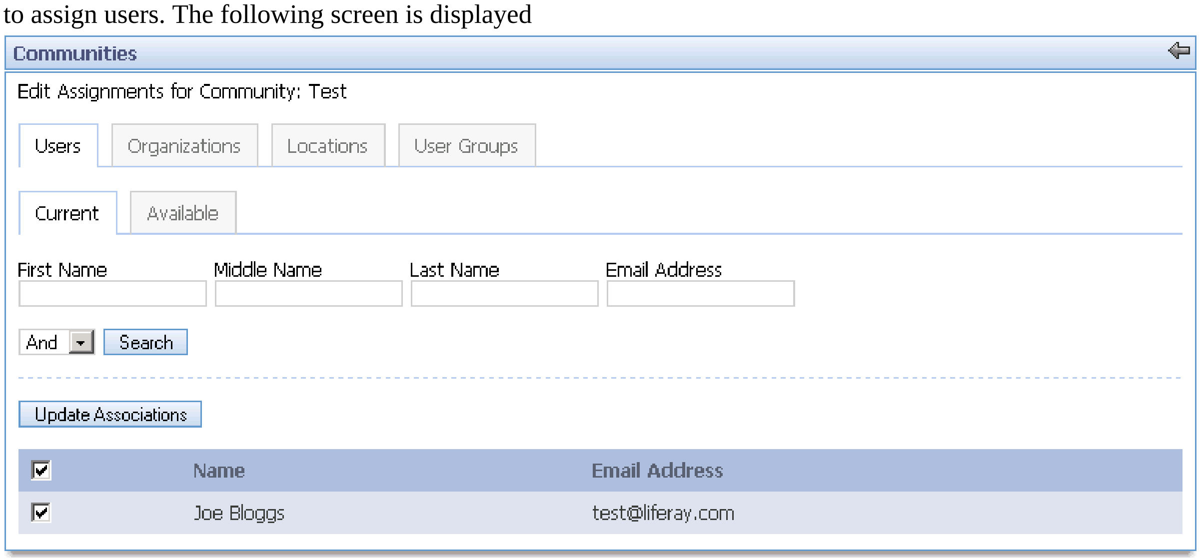
4. You can also import a LAR file into your current community. *BE VERY CAREFUL*, however, because importing a LAR file will overwrite any existing pages with the pages configured in the LAR file. To import a LAR file, click on the **Browse** button, find the LAR file on your hard drive, click the **Open** button, and then click the **Import** button.

How to assign users to a community

Users can either be assigned directly or indirectly to a community. Both methods of assignment will be discussed below.

Assigning Users Directly to a Community

1. Go to the **Communities** portlet, and click on the **Assign** icon to the right of the community for which you want to assign users. The following screen is displayed



2. When a community is first created, only the user who created the community is assigned to it (in this case, Joe Bloggs). Click on the **Available** tab.

3. Use the search form to search for the users that you want to directly assign to this community.

4. Check the boxes to the left of the users that you want to directly assign to this community.

5. Click the **Update Associations** button.

6. Alternatively, users can directly assign themselves to open communities by joining them. See section 2.5.1 below.

Assigning Users Indirectly to a Community

1. Go to the **Communities** portlet, and click on the **Assign** icon to the right of the community for which you want to assign users.

2. Click on the **Available** tab.

3. Click on the **Organizations**, **Locations**, or **User Groups** tab.

4. Use the search form to search for the organizations/locations/user groups that you want to assign to this community. In other words, all of the members of your selected organizations/locations/user groups will be indirectly assigned to this community via a link. However, for all intents and purposes, the users will function as members of the community.

5. Check the boxes to the left of the organizations/locations/user groups that you want to assign to this community.

6. Click the **Update Associations** button.

How to join and leave an open community

Joining an Open Community

1. Click on the **Available** tab.

2. Assuming a community is open, it will have a **Join** icon () to the right of the community.

   Click on the **Join** icon.

3. Assuming that community already has pages configured for it, the **My Places** menu will now have an entry for the community you just joined. Click on that community's name, and you will be able to navigate to it.

Leaving an Open Community

1. Click on the **Current** tab.

2. Assuming there is an open community that you already joined, it will have a **Leave** icon () to the right of

the community.

Click on the **Leave** icon.

3. The community you just left will no longer appear in the **My Places** menu, and you will no longer have access to it.

How to control permissions in a community

See Chapter 3 for an exhaustive explanation of how to use the new security and permissions model in Liferay 4.0. In particular, see sections 3.9.2 and 3.9.3 for explanations of how to control community and page permissions.

Page Settings link

The **Page Settings** link functions almost exactly like the **Pages** icon in the Community Portlet. The following are the only differences:

- The **Page Settings** link doesn't have a Public and Private tab. When you click on the **Page Settings** link, you only have access to manage the pages for the current community you're in. For example, if you're in the public "Support" community, you only have access to manage the public pages in the "Support" community, and if you're in the private "Support" community, you only have access to manage the private pages in the "Support" community.
- If you click on the **Import / Export** tab in the **Page Settings** link, you only have the option to export and not import. This is because if you were given the option to import, you would overwrite all of the communities pages *including* the current page that you're on.
- When you click on the **Page Settings** link, the current page is automatically selected in the left-hand tree structure

Chapter 3. Security and Permissions

This chapter will provide a reference for administering permissions for existing portlets and objects within Liferay Portal 4.0. Fine grain permissioning is one of the main new features of this release. The entire groups permissioning mechanism in Liferay has been reworked to allow for resource level permissions for users, communities, organizations, locations, and user groups. Please refer to the developers guide for implementation specifics.

Introduction

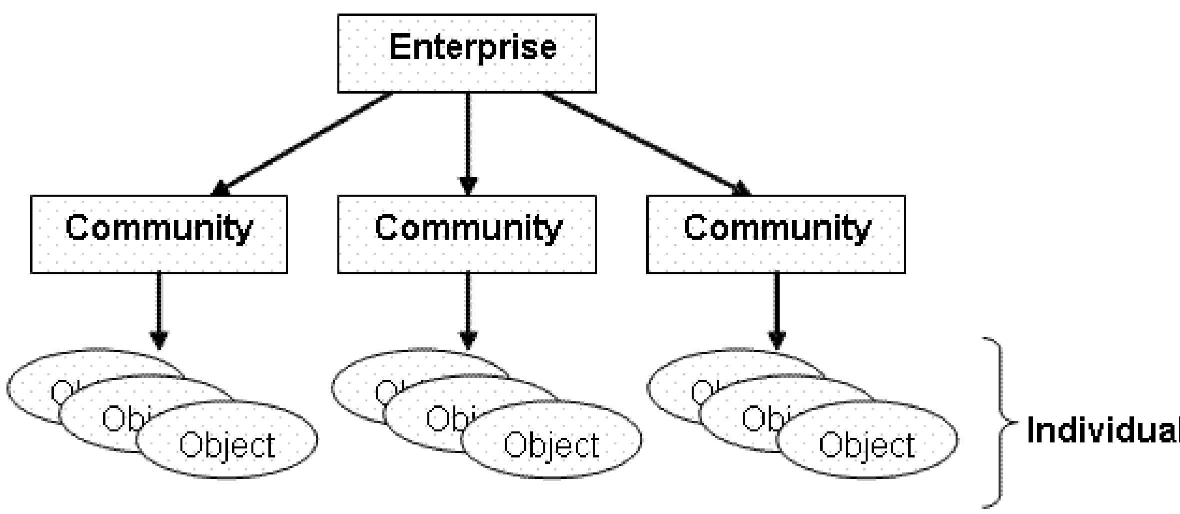
Liferay Portal introduces a new security model that incorporates a fine-grained permissioning system to give administrators full control over access and privileges to portlets and objects within the portal. In all prior releases, permissioning was handled on a per portlet basis and was therefore limited in use and difficult to maintain. In this new release, the vast majority of permissioning logic has been extracted into its own framework so that the integration of permissioning into new portlets is minimal. In addition, the permissioning logic has been greatly enhanced so that administrators can finely tune security within the portal. This document begins by giving a high-level overview of all the entities involved in the security model. Some entities have always existed in the portal and should be familiar to administrators, but others are brand new and therefore require definition and explanation. Next, a discussion of all of the ways to assign permissions to users is given in a use case format.

Entity Definitions

Before using the new security model, an administrator must understand all the entities that compose the model. This chapter will define each of the entities and explain how they are related to the others.

Resources

A resource is a generic term for any object represented in the portal. Examples of resources include portlets (e.g., Message Boards, Calendar, Document Library, etc.), Java classes (e.g., Message Board Topics, Calendar Event, Document Library Folder, etc.), and files (e.g., documents, images, applications, etc.). Resources can have one of three types of scope – enterprise, community, or individual. The diagram below shows how these types are related.



Essentially, an enterprise is the umbrella grouping for all objects within the portal. A resource that has enterprise scope applies to all objects of that type in the company. For example, a Message Board Topic resource with enterprise scope encompasses every topic across all communities and all message boards within the enterprise. An enterprise can contain any number of communities. A resource that has community scope only applies to the objects within a particular community. For example, assume that the “Developer" community has several message boards. A Message Board Topic resource with “Developer" community scope would encompass all topics within the “Developer" message boards. Each community can contain any number of objects. A resource that has individual scope only applies to a single object. For example, assume that the “Developer" community has a message board that contains the topic “Java Issues." A Message Board Topic resource with individual scope would have a one-to-one correlation with the “Java Issues" topic.

Permissions

A permission is defined as an action acting on a resource. The table below gives some example permissions related to message board topics.

Table 3.1. Example Permissions

Action	Resource	Explanation
View	Message Board Topic / Enterprise Scope	The user has permission to view any topic in any message board in the enterprise
Update	Message Board Topic / "Developer" Community Scope	The user has permission to only update a topic contained in a message board in the "Developer" community
Delete	Message Board Topic / "Java Issues" Individual Scope	The user has permission to only delete the "Java Issues" topic (which happens to be in a message board in the "Developer" community)

Enterprise and community scoped permissions can only be assigned to entities (e.g., users, communities, organizations, and locations) via roles. See section 2.3 for more details. Individual scoped permissions can be assigned to a user, community, organization, location, or guest. If a permission is assigned to a community, organization, location, or guest, then all users that are members of that entity receive that permission.

In general, permissions are additive. Therefore, a user could receive all three of the permissions in the table above even though they are all of different scope. Consider a situation where a view “Java Issues” permission of individual scope was assigned directly to a user and a view Message Board Topic permission of enterprise scope was assigned to the same user through a role (see section 2.3 for more information on roles). Because permissions are additive, the user could receive the view permission for the “Java Issues” topic from either the individual or enterprise scope. However, permissions are always checked in the following order:

- Individual
- Community
- Enterprise

Therefore, as soon as the system finds the view permission of individual scope, it stops checking and gives the user permission to view. However, also consider the case where the individual scope permission is removed from the user. Now when the system checks, it won’t find an individual scope or community scope permission, but it will find the enterprise scope permission. For an administrator, this situation can often lead to a great deal of confusion – a permission is removed from one entity, but the permission is still derived from another entity. As a rule of thumb, if an administrator ever removes a permission from an entity, yet user(s) still has the permission, the administrator should look for derived permissions in the system.

Roles

A role is a collection of permissions. As such, a role serves no purpose unless permissions are assigned to it. An example role might be a “Message Board Topic Administrator." The role might be assigned permissions to View, Update, and Delete Message Board Topic resources that have company scope. Ultimately, a user assigned the “Message Board Topic Administrator" role would be able to view, update, and delete any topic for any message board in the company. Roles can be assigned to a user, community, organization, or location. If a role is assigned to a community, organization, or location, then all users that are members of that entity receive the role.

Users

A user is an individual who performs tasks using the portal. Depending on what permissions and roles that have been assigned, the user either has permission or does not have permission to perform certain tasks. Before logging in to the portal, a user is considered a guest. Guests have their own set of default permissions for objects in the portal, but even these can be customized by administrators. After logging in to the portal, a user is considered a registered user. Registered users can receive permissions in the following ways:

- Permission is directly assigned to the user
- Permission is assigned to a community that the user belongs to
- Permission is assigned to an organization that the user belongs to
- Permission is assigned to a location that the user belongs to
- Permission belongs to a role that is directly assigned to the user
- Permission belongs to a role that is assigned to a community that the user belongs to
- Permission belongs to a role that is assigned to an organization that the user belongs to
- Permission belongs to a role that is assigned to a location that the user belongs to

Organizations and Locations

Organizations and locations represent a corporate hierarchy. An organization represents a parent corporation. An example would be Liferay USA. A location represents a child corporation of an organization, often times distinguished by its geographic location. Organizations can have any number of locations. Example locations of the Liferay USA organization might be Liferay Chicago, Liferay San Francisco, and Liferay Los Angeles. A user can only belong to a single organization and location.

Both roles and individual permissions can be assigned to organizations and locations. By default, locations inherit permissions from their parent organization. Going back to the example above, if the “Message Board Topic Administrator" role is assigned to the Liferay USA organization, then all members of the Liferay Chicago, Liferay San Francisco, and Liferay Los Angeles locations would inherit the permissions associated with the role.

Communities

A community is a grouping of users by interest or skill set. For example, a “Pet Lovers" community would consist of users who have an interest in their pets, while a “Tech Support" community would consist of users who have the skills to provide technical support to an organization. A user can belong to any number of communities. NOTE: In previous versions of Liferay, communities were called groups. As far as permissions are concerned, communities are *not* specific to any organization or location. Both roles and individual permissions can be assigned to communities.

User Groups

A user group is a grouping of users. Unlike organizations, locations, and communities, user groups have no context associated with them. They are purely a convenience grouping that aids administrators in assigning permissions and roles to a group of users instead of individual users or assigning a group of users to a community. A user can belong to any number of user groups. Both roles and individual permissions can be assigned to user groups, and every user that belongs to that user group will receive the role or permission.

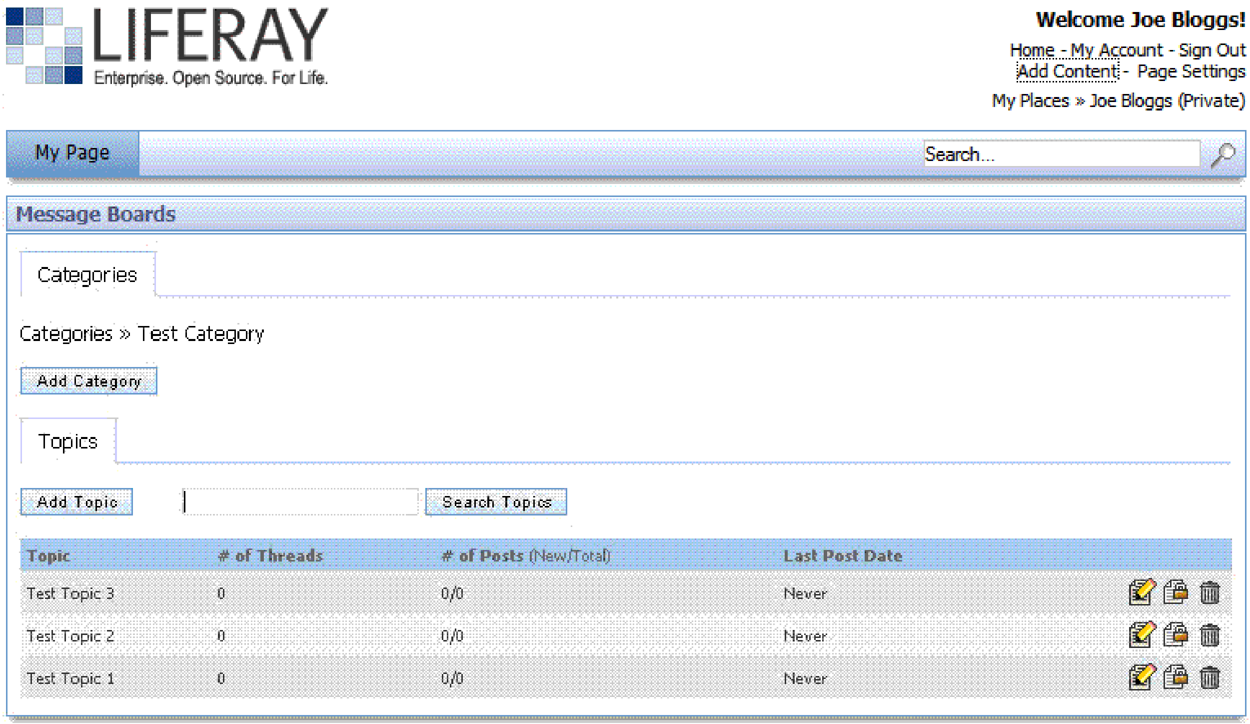
Administration

Now that the entities that compose the security model have been defined, this chapter explains how to administer permissions using these entities. Whenever possible, examples using the Message Board portlet are used to illustrate the steps an administrator would take to set permissions. In addition, the administrator’s view of the portlet is contrasted to an end user’s view of the portlet. The administration steps are presented in a use case format.

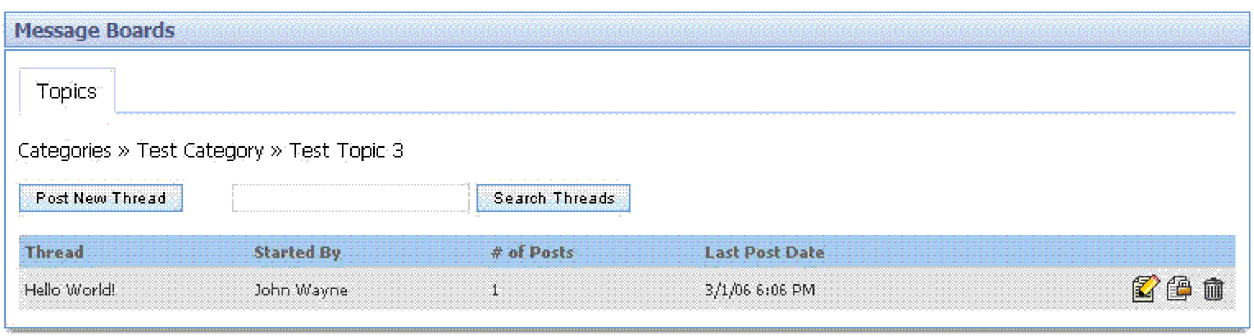
This discussion begins with a set of assumptions that set the environment for the rest of the discussion. It then proceeds to explain how to use the Enterprise Admin portlet to create a role, assign company and community permissions to the role, and then assign the role to users, communities, organizations, locations, and user groups. Finally, individual permissions at a portlet and object level are discussed.

Assumptions

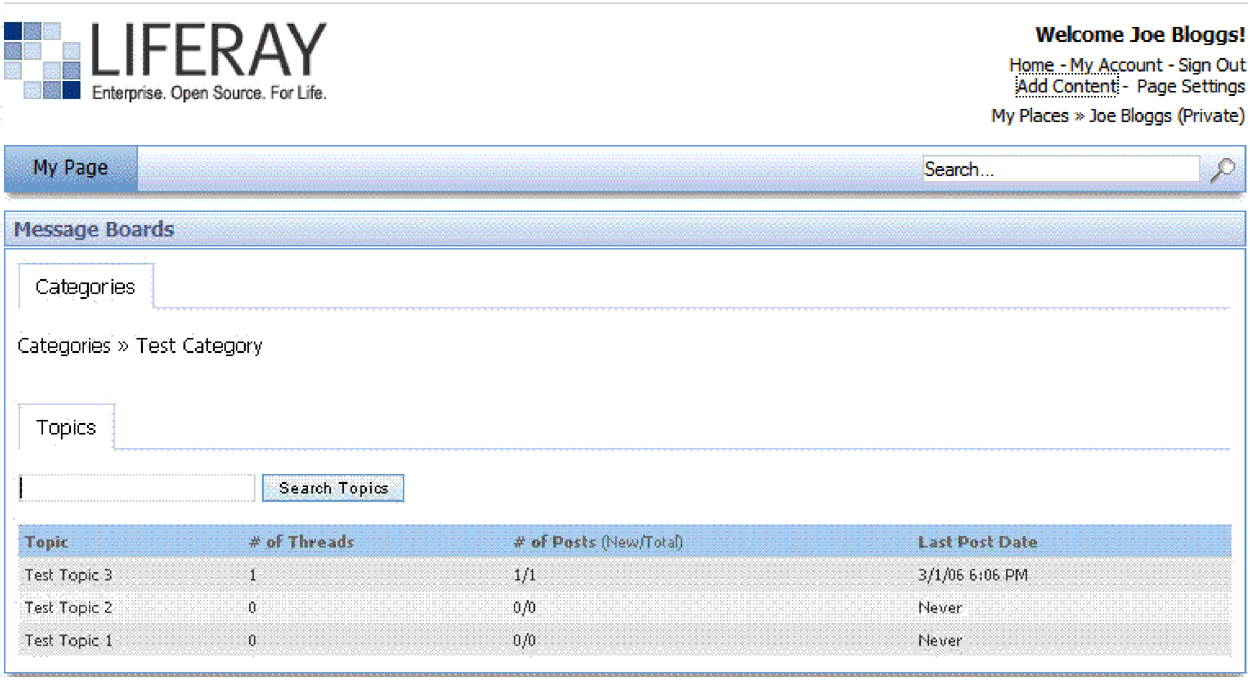
For the purpose of our discussion, assume an Administrator has added a Message Board portlet to the Support community (the support community can be found by clicking on My Places drop-down menu). Also assume that a category called “Test Category" has been created, and the category contains three topics – “Test Topic 1," “Test Topic 2," and “Test Topic 3." The diagram below illustrates this scenario as seen from the Administrator’s view.



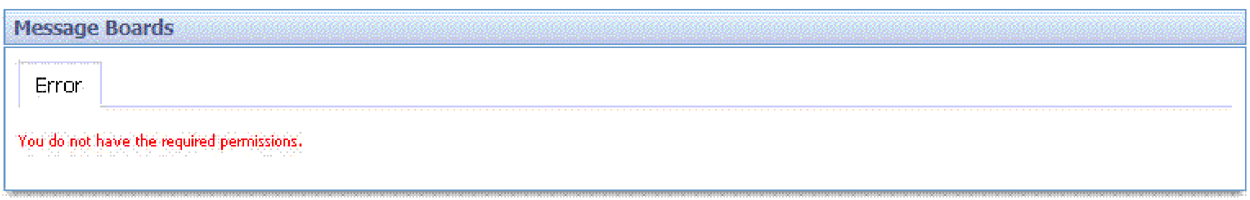
Also assume that “Test Topic 3" contains a single thread. The following diagram depicts what an Administrator would see after clicking on the “Test Topic 3" link.



For comparison purposes, assume an End User (Test LAX 2) that belongs to the Support community also logs in and views the Message Board portlet (by default, login = test.lax.2@liferay.com / password = test). The user will see the following after clicking on the “Test Category" link.



When compared with the Administrator's view, it is clear that Test LAX 2's view is much more limited in functionality. Test LAX 2 is missing several buttons and icons that the Administrator has. If Test LAX 2 were to click on the "Test Topic 3" link, the following will appear.

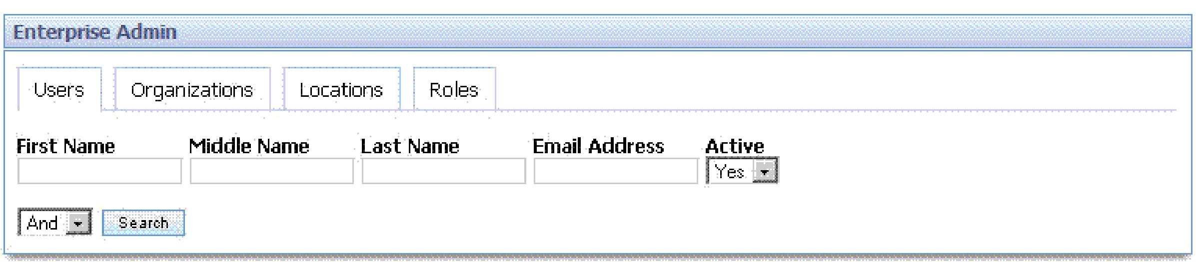


Instead of seeing the thread like the Administrator, Test LAX 2 only sees a message saying the required permission to view the contents of this topic has not been given. In the following sections, we will discuss the different ways administrators can give the End User additional permissions so the user can have greater control over the message board topics.

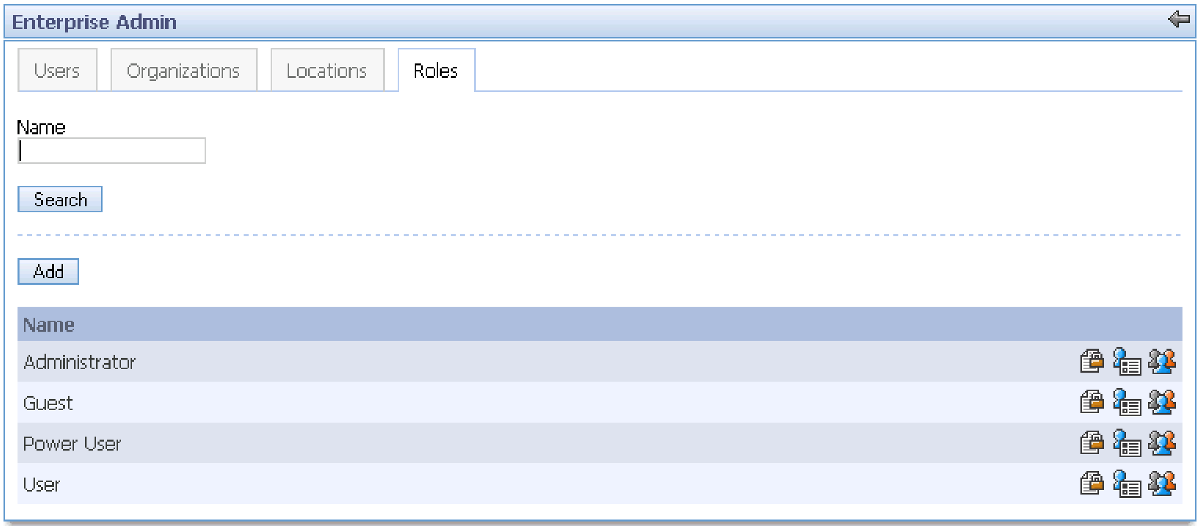
Creating a Role

Goal: To create a role called "MBTopic Admin" using the Enterprise Admin portlet. This role will be used in subsequent use cases.

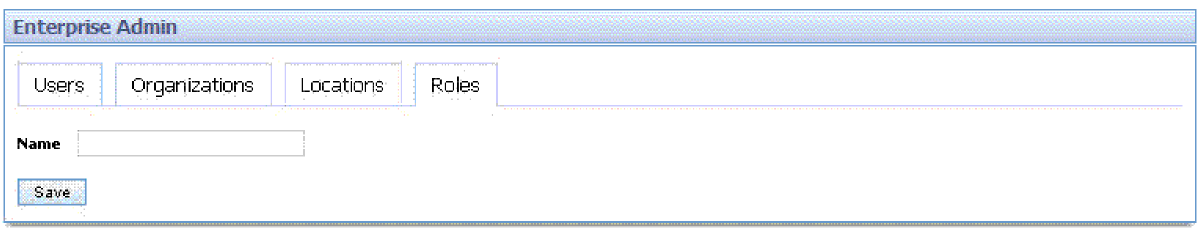
1. Begin by logging into the portal as an Administrator (defaults to the Joe Bloggs user) and adding the Enterprise Admin portlet to the desktop.



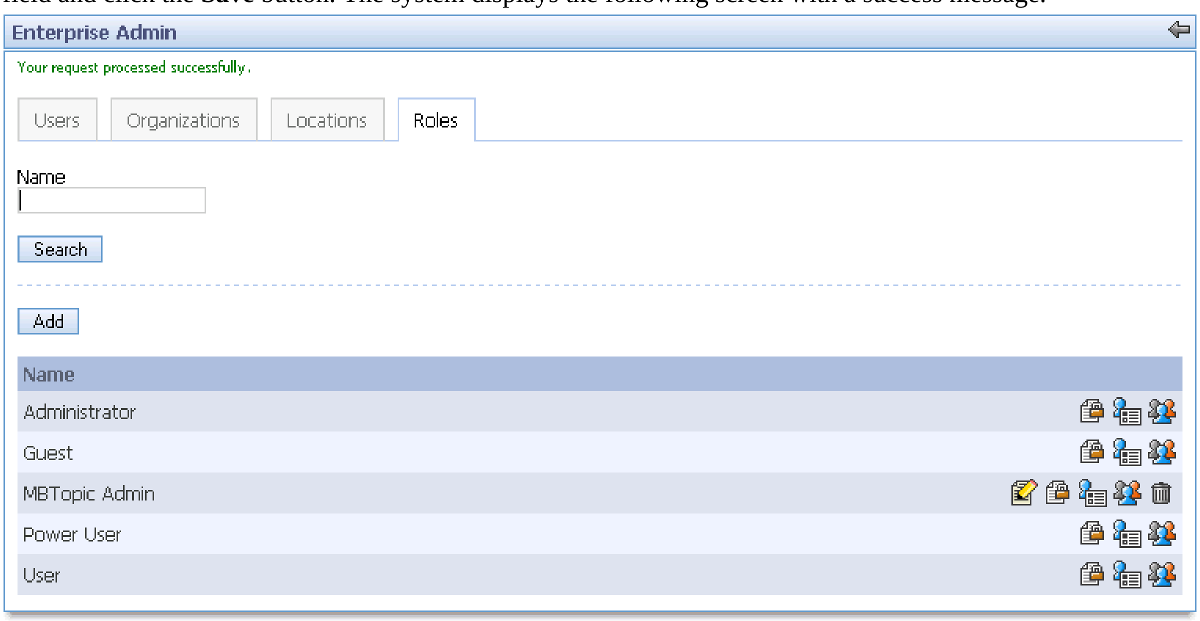
2. Click on the **Roles** tab. The following screen is displayed.



3. The screen above displays a list of current roles in the system. The administrator is able to search for a role by name if desired. Click on the **Add** button. The following screen is displayed.



4. The screen above allows the administrator to create a new role. Enter "MBTopic Admin" in the **Name** input field and click the **Save** button. The system displays the following screen with a success message.

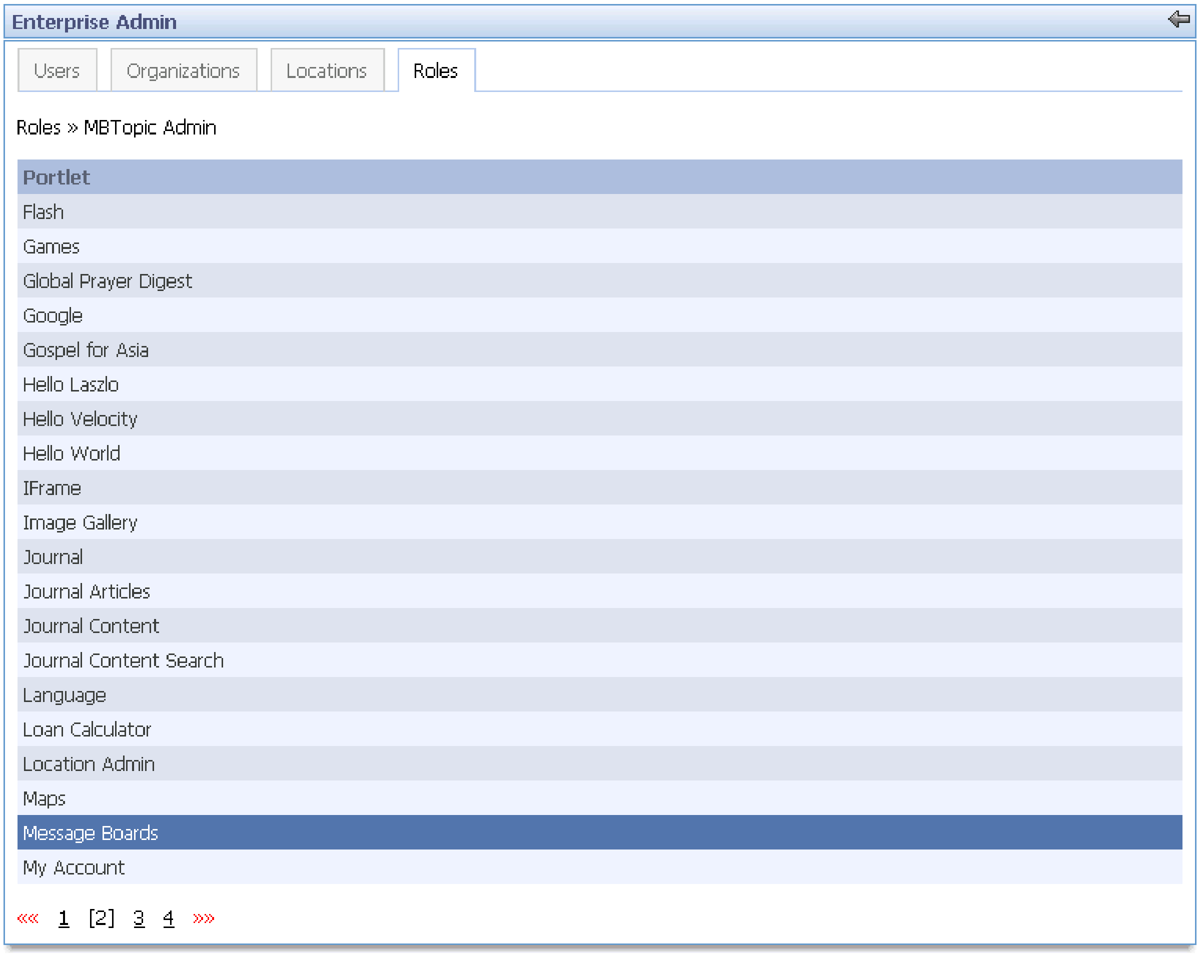


5. The administrator is returned to the role list screen. Notice that the new role has been created.

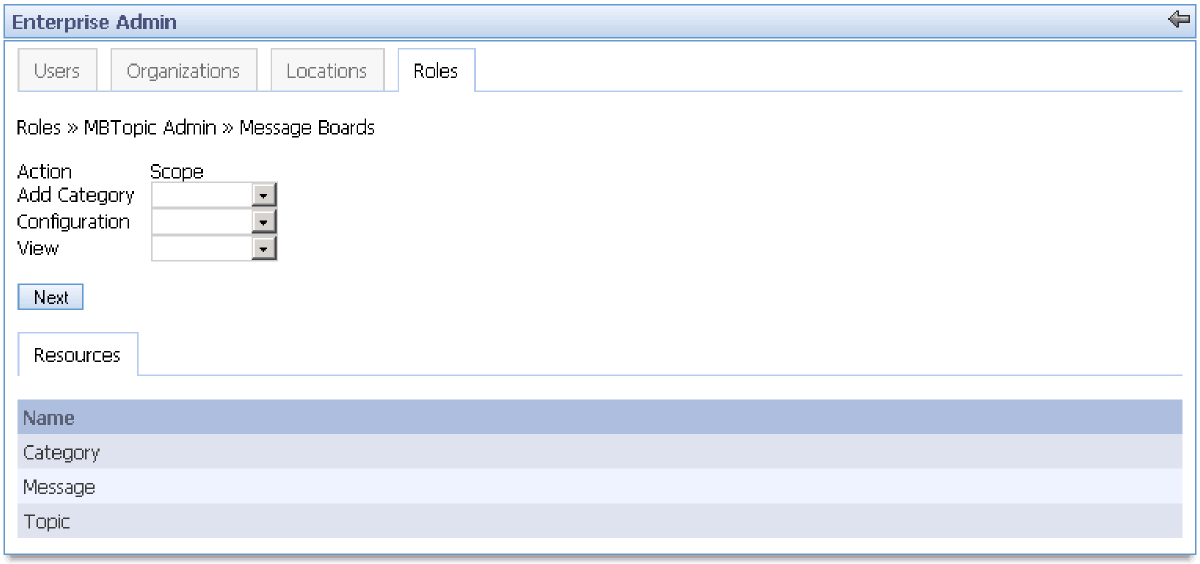
Assigning Company Permissions to a Role

Goal: To assign a permission to the “MBTopic Admin" role that allows users to view any message board topic in the company (i.e., action = View, resource = Message Board Topic, scope = Company).

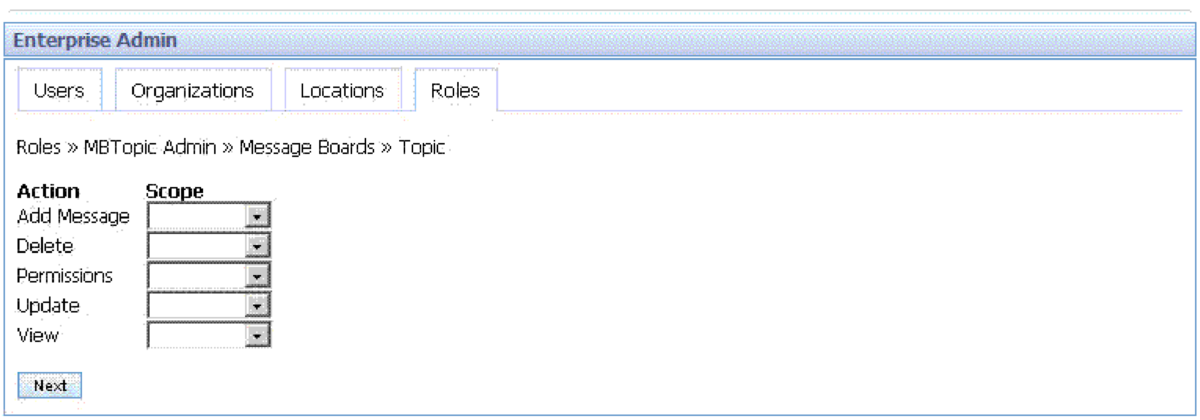
1. From the Roles tab in the Enterprise Admin portlet, click on the **Delegate** icon () next to the “MBTopic Admin" role. The following screen is displayed.



2. The purpose of the screen above is to find the resource to be acted upon. Every object in the portal is contained within a portlet. Therefore, the administrator must find the parent portlet of the object in question. Because the Message Board Topic resource is to be acted upon, the administrator must first find the Message Board portlet. Use the numbers or the right arrow in the lower left corner of the screen to scroll through the portlets and find the Message Boards portlet. Click on the **Message Boards** link. The following screen is displayed.



3. The screen above presents two lists. First, it presents a list of the actions that can be performed on the portlet itself (in this case, a category can be added to the Message Boards portlet, the Message Boards portal can be configured, or it can be viewed). These are known as portlet permissions. Second, it presents a list of the "Resources" (i.e., objects) that are contained within the portlet. For this use case, the Topic model is the target. Click on the **Topic** link. The following screen is displayed.



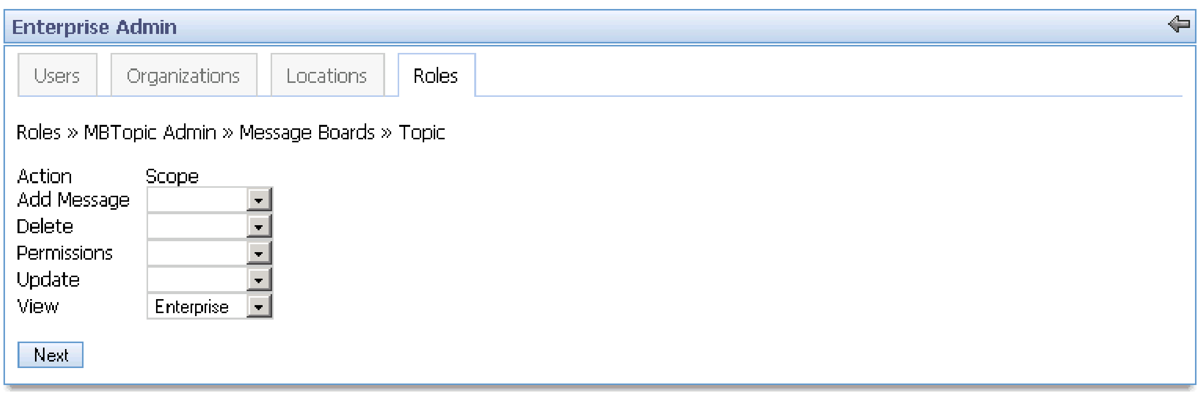
4. The screen above presents a list of the actions that can be performed on the selected resource – in this case, the Message Board Topic. The goal of this use case is to create a permission that allows all topics in the Enterprise to be viewable. Therefore, click on the **Scope** drop-down menu next to the View action and select “Enterprise." Then, click the **Next** button. The following screen is displayed.

5. The screen above provides a summary of the permissions that were just created for the “MBTopic Admin" role. Click on the **Finished** button to return to the role list under the **Roles** tab.

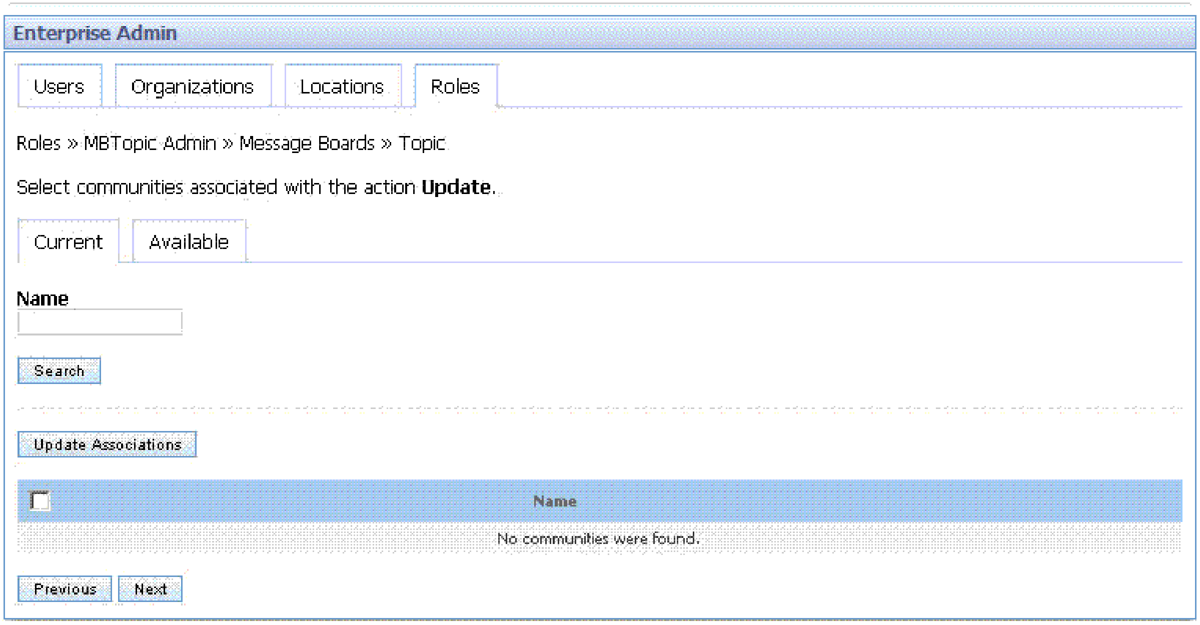
Assigning Community Permissions to a Role

Goal: To assign a permission to the “MBTopic Admin" role that allows users to update any topic in the Support community’s message boards (i.e., action = Update, resource = Message Board Topic, scope = Community, community = Support).

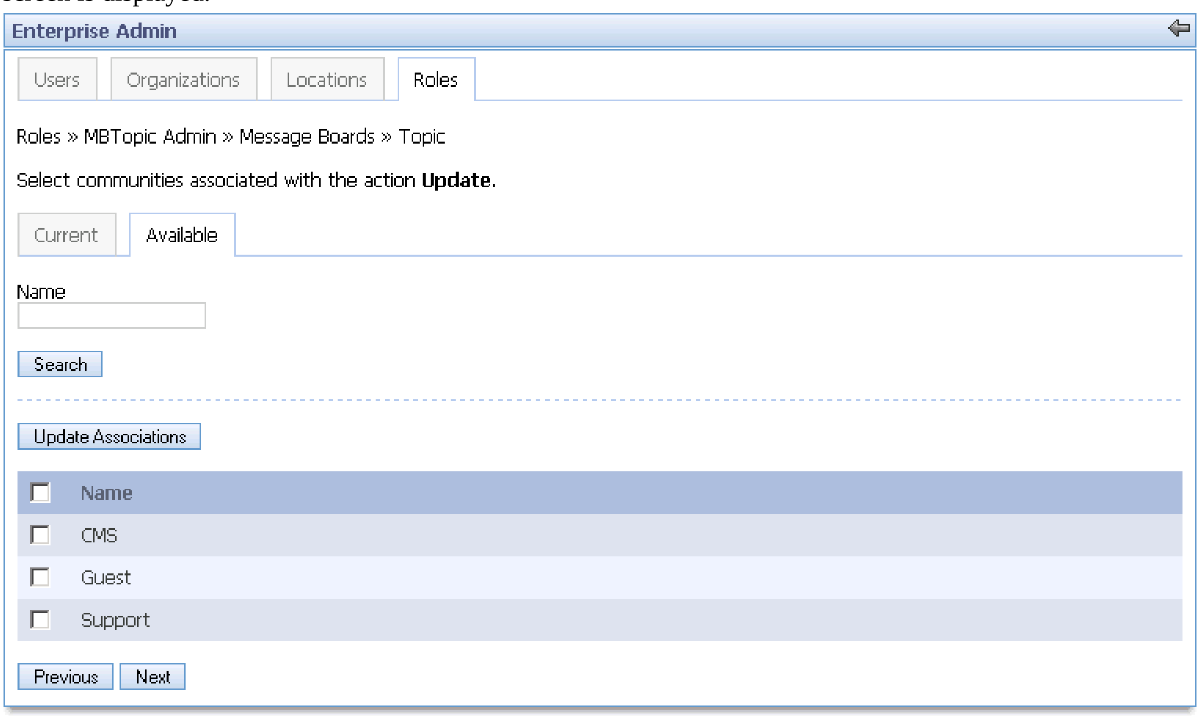
1. Repeat steps 1 – 3 of section 3.2. The following screen is displayed.



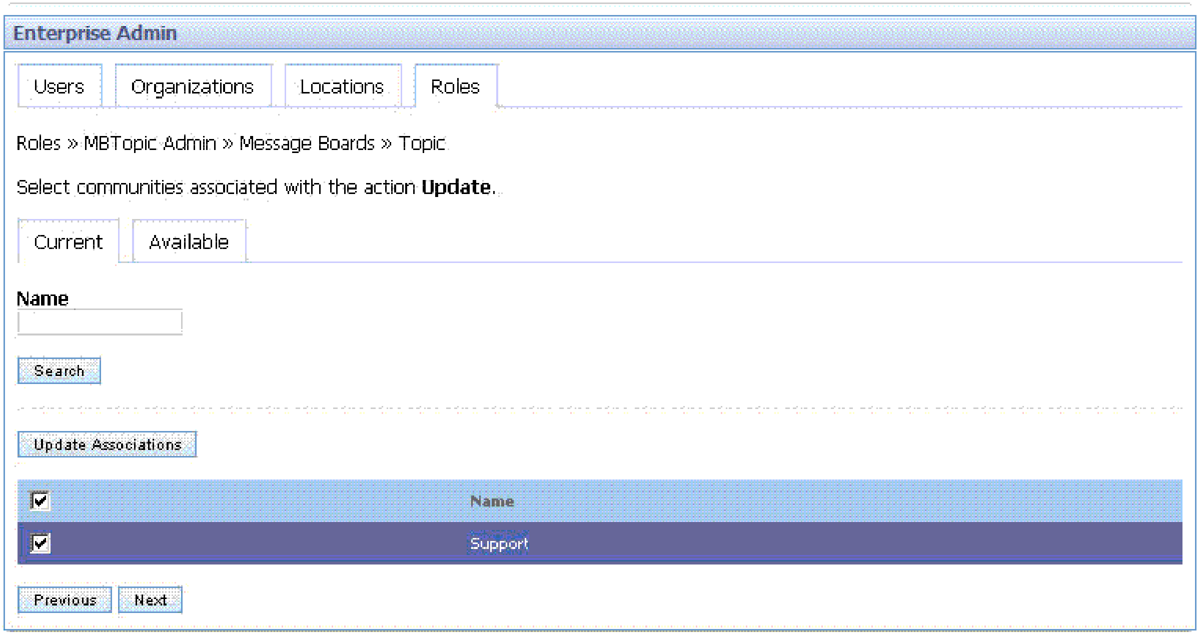
2. The screen above presents a list of the actions that can be performed on the selected resource – in this case, the Message Board Topic. Notice that the View action already has its Scope field set to “Enterprise" because of the previous use case. It should be noted that scopes can be set for any number of actions on this screen before clicking the **Next** button. However, the goal of this use case is to create a permission that allows users to update any topic of a message board in the Support community. Therefore, click on the **Scope** drop-down menu next to the Update action and select “Community." Click the **Next** button. The following screen is displayed.



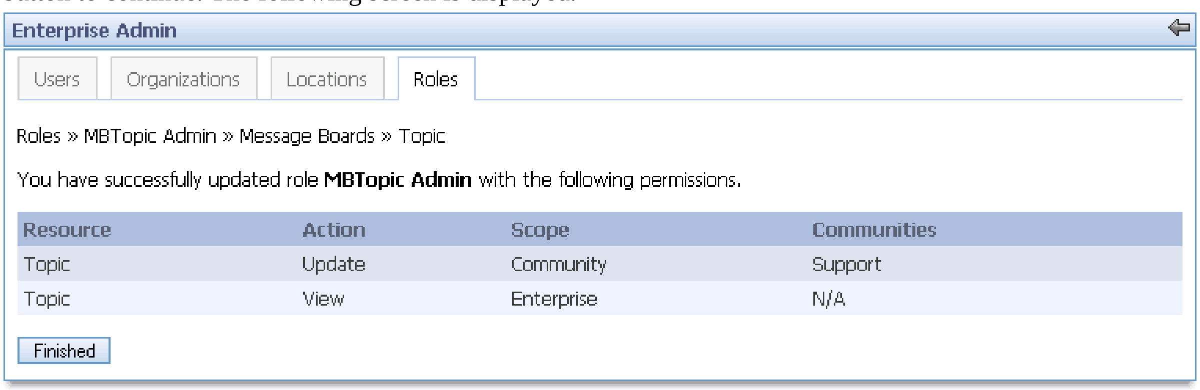
3. The purpose of the screen above is to allow the administrator to select one or more communities to associate with the selected action – in this case, the Update action. Since the **Current** tab is selected, it is clear that there are currently no communities associated with the Update action. Click on the **Available** tab. The following screen is displayed.



4. The screen above displays all of the available communities that can be associated with the Update action. If this had been a long list, the administrator could have searched for the desired community by its name. Check the checkbox next to the **Support** community, and click on the **Update Associations** button. The administrator is presented with the same screen, but a success message is also displayed. Click on the **Current** tab to confirm that the association was successful. The following screen is displayed.



5. The screen above confirms that the association was successfully made. Alternatively, if the administrator decides that this association should be discarded, uncheck the checkbox next to the community name and then click the **Update Associations** button. However, for this use case, this association is correct, so click the Next button to continue. The following screen is displayed.

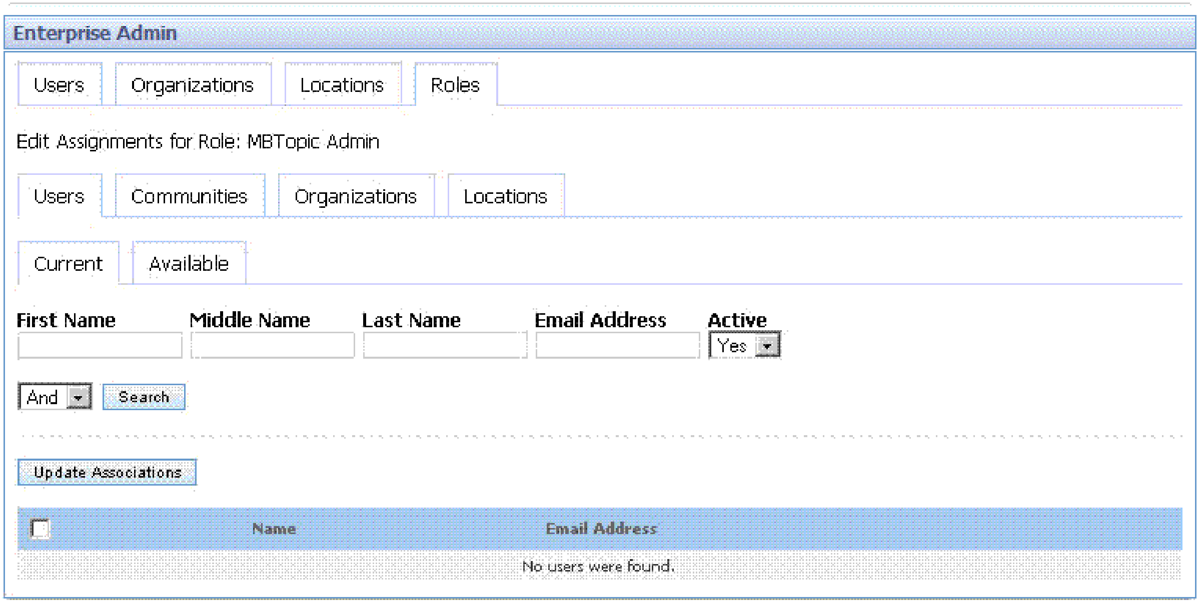


6. Just as in the previous use case, this final screen displays a summary of the permissions that are now associated with the “MBTopic Admin" role. Note that the previously created Enterprise scope permission is also included in the summary. Click on the **Finished** button to return to the role list under the Roles tab.

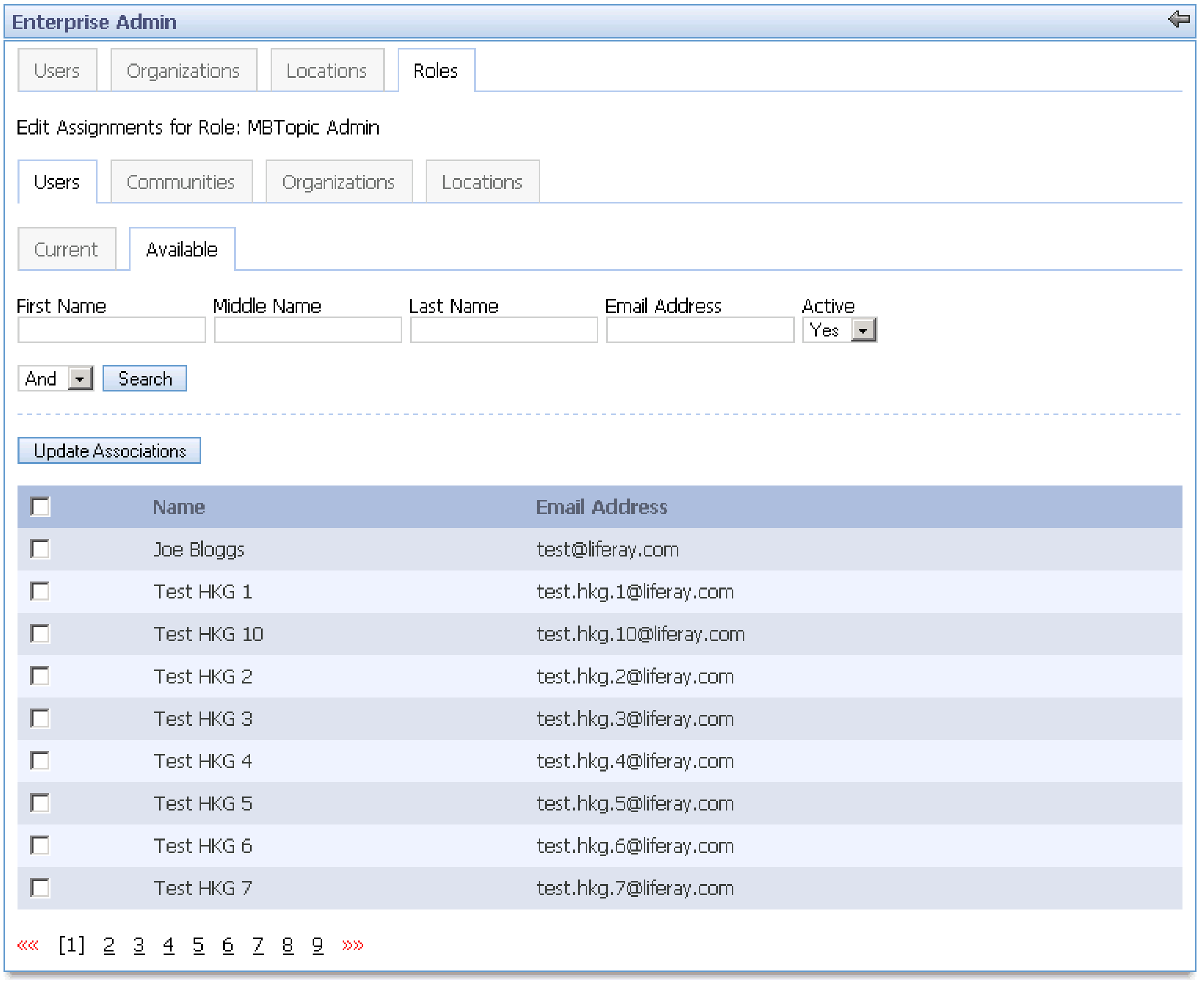
Assigning Roles

Goal: To assign the “MBTopic Admin" role to the Test LAX 2 end user.

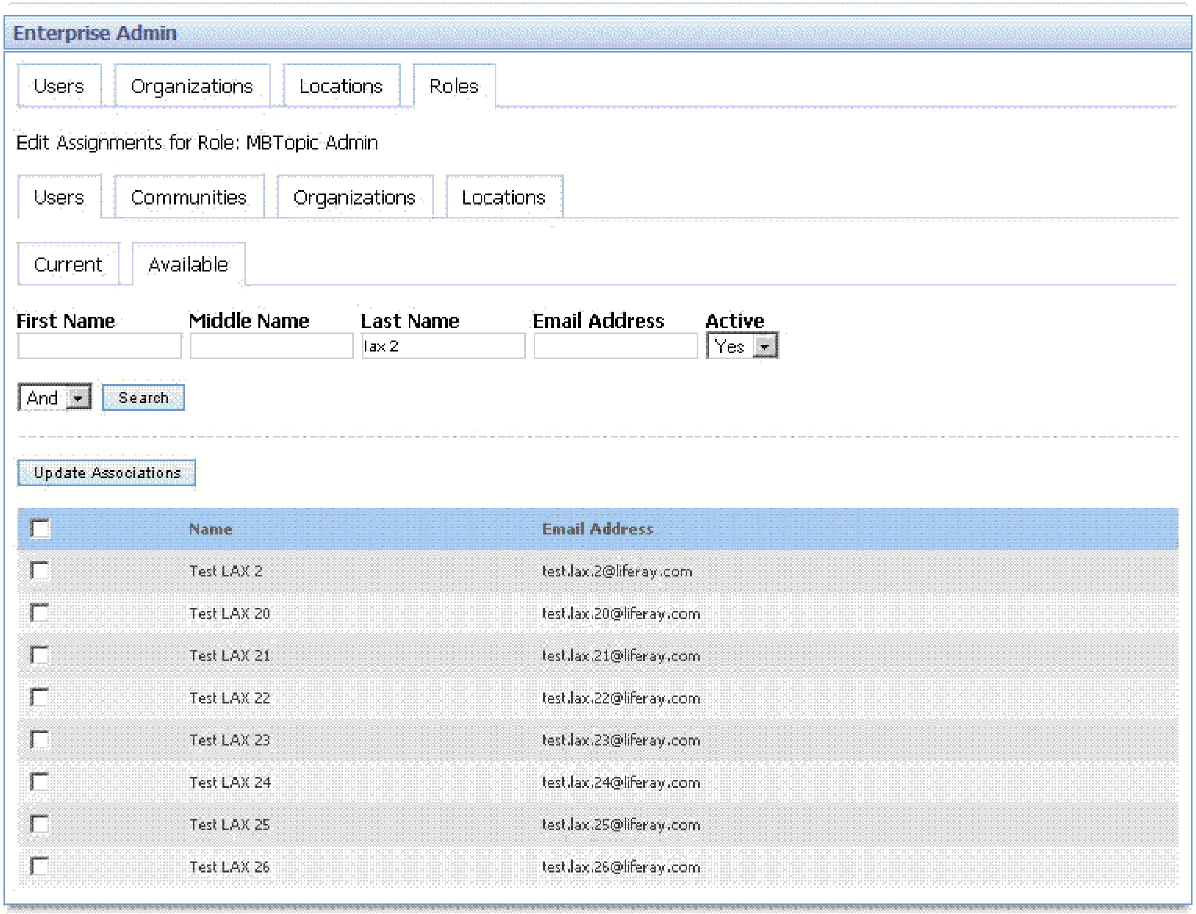
1. From the **Roles** tab in the Enterprise Admin portlet, click on the **Assign** icon () next to the “MBTopic Admin" role. The following screen is displayed.



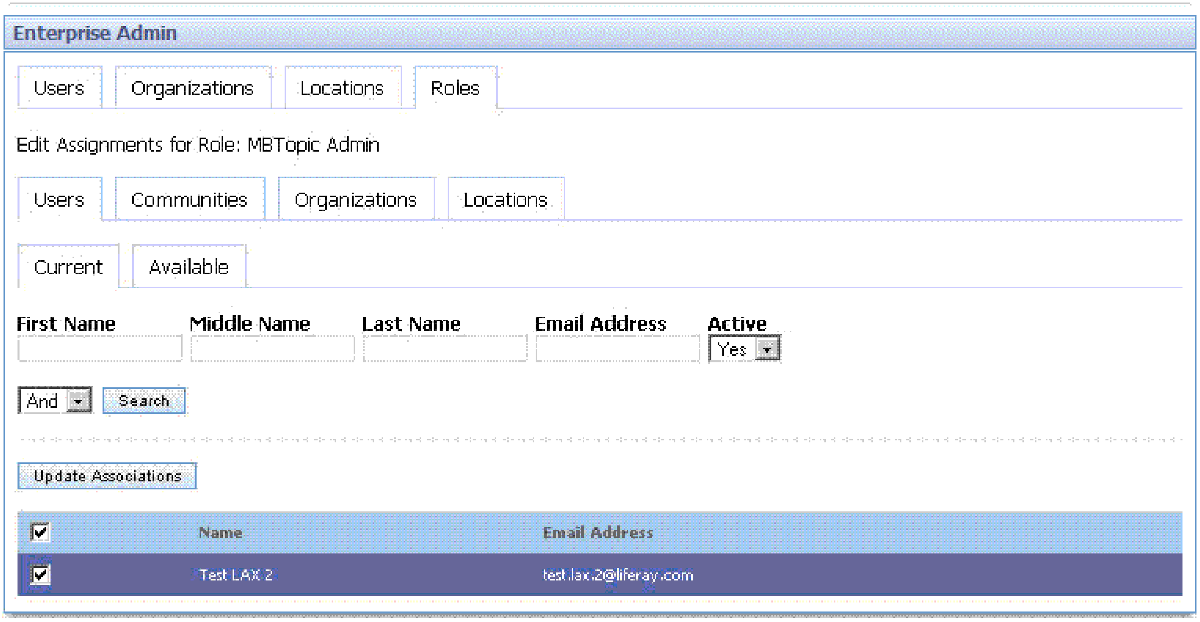
2. In the screen above, notice that the Users tab and Current sub-tab are selected. This means the current users associated with the “MBTopic Admin" role are being displayed. Currently, there are no users associated with this role. If there had been a long list of users, the administrator could have used the search form to search for particular users. However, the goal of this use case is to associate the “MBTopic Admin" role with the Test LAX 2 user. Therefore, click on the **Available** tab in order to search for this user. The following screen is displayed.



3. The screen above lists all of the available users that can be associated with the “MBTopic Admin" role. The search for the Test LAX 2 user could be performed in two ways. First, the administrator could use the search page numbers and the left/right arrows (below and to the left of the user list) to scroll through all the users and look for Test LAX 2. However, the more efficient approach would be to use the search form. In the Last Name field, type in “lax 2" and click on the Search button. The following screen is displayed.



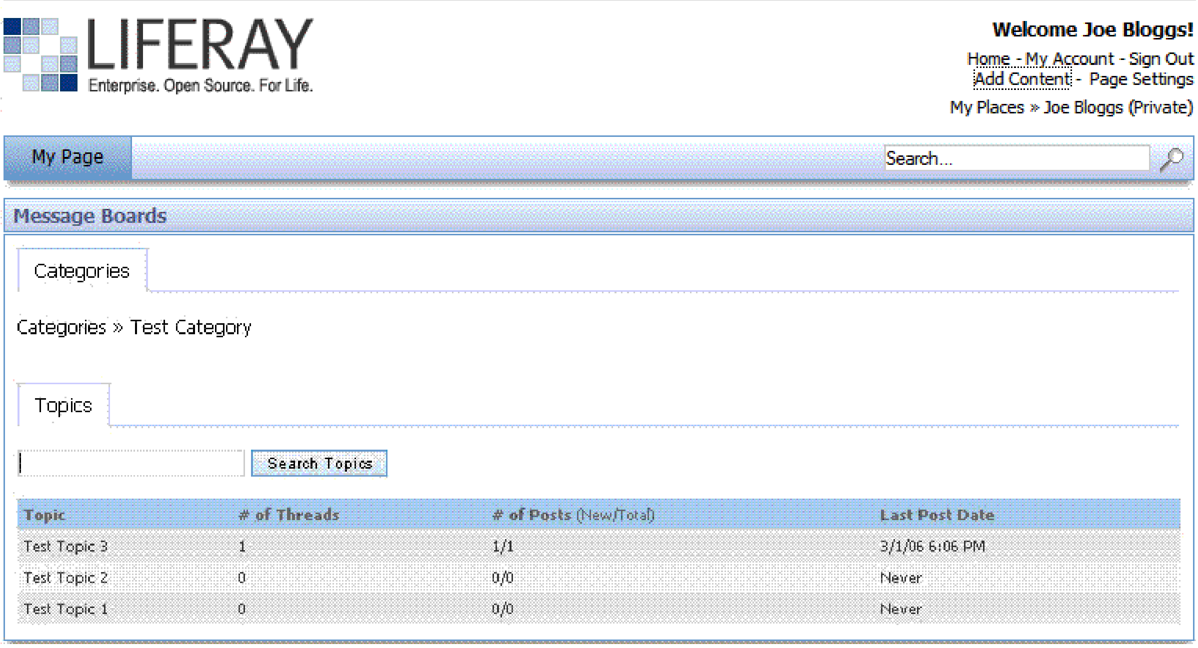
4. The desired user is the first one in the list of search results. Check the checkbox next to Test LAX 2. If the use case called for multiple users to be associated with this role, any number of checkboxes could have been checked. Click the **Update Associations** button. The administrator is presented with the same screen, and a success message is also displayed. To confirm that the association was successfully created, click on the **Current** tab. The following screen is displayed.



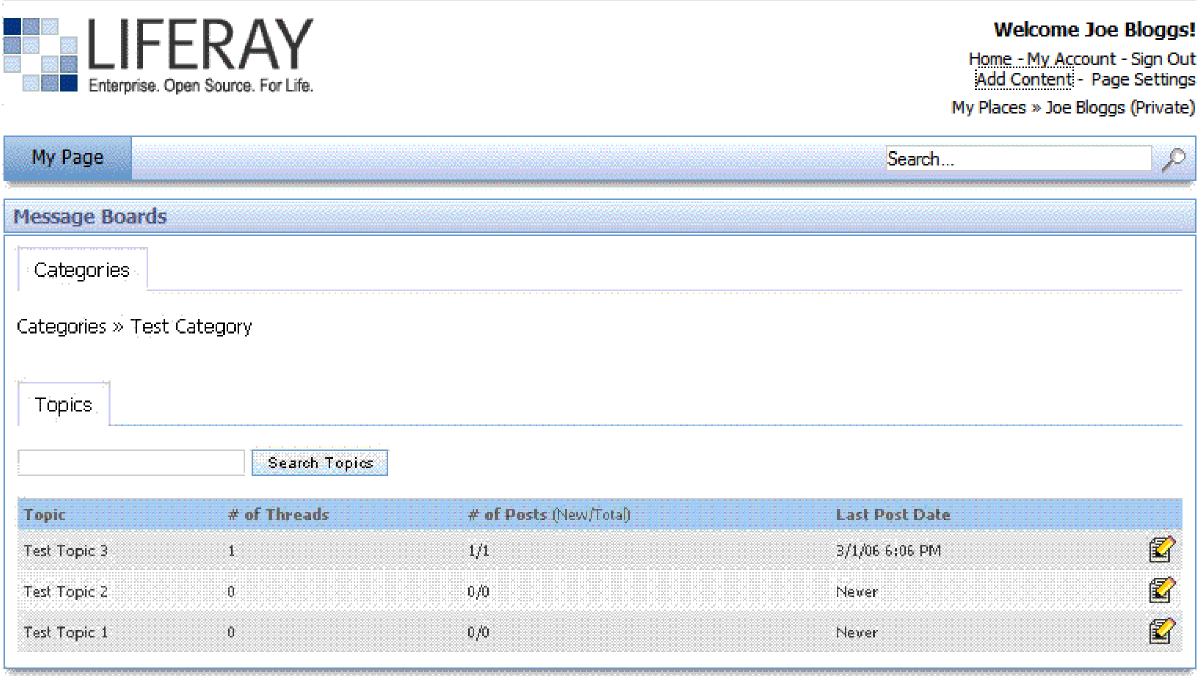
5. From the screen above, it is clear that the association was successfully created. If the administrator decided that this association should be discarded, uncheck the checkbox next to the user's name and click the Update Associations button.

Results

What have we accomplished in these four use cases? We created two permissions: Enterprise scope permission and Community scope permission—and we associated them with a role. We then associated the role with an end user. Therefore in theory, this end user should now have permission to perform these 2 actions on the selected resource. To test our theory, log into the portal as Test LAX 2. Go to the Support community using the My Places drop-down menu. Click on the "Test Category" link in the Message Boards portlet. Compare the "Before" and "After" screen shots below.

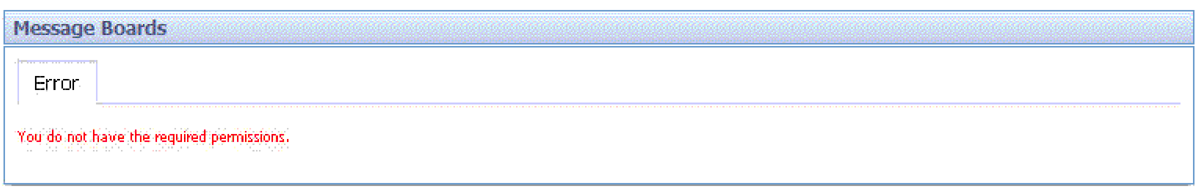


Before

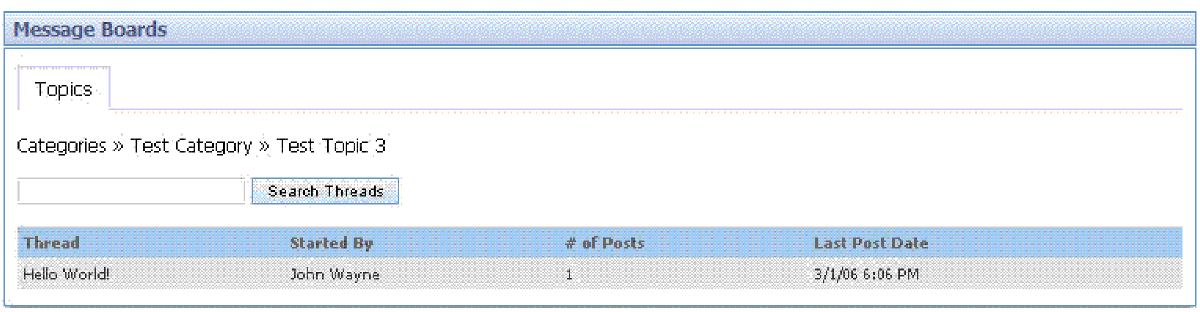


After

Notice that now Test LAX 2 has the Update icons ( ) next to each of the topics. This is a result of the section 3.3 use case. Now click on the "Test Topic 3" link. Compare the "Before" and "After" screen shots below.



Before



After

Whereas before an error message appeared, now the user can actually view the thread. This is a result of the section 3.2 use case.

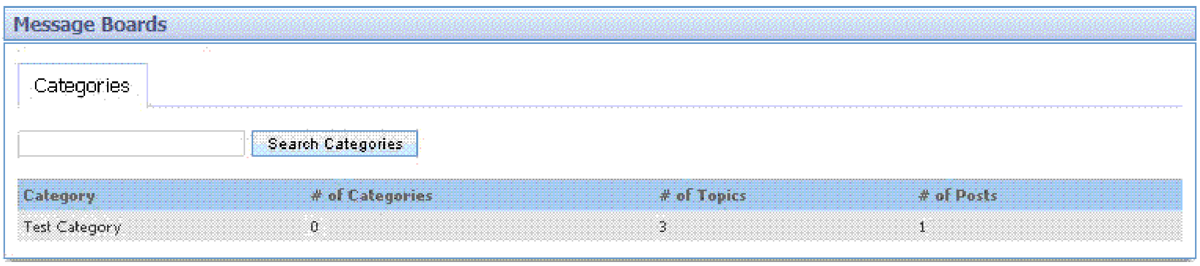
Assigning Roles to Other Entities

Alternatively, steps 1 – 5 in this use case could have been repeated for the **Communities**, **Organizations**, **Locations**, or **User Groups** tab. In fact, the exact same results could have been achieved by associating the "MBTopic Admin" role with the appropriate community, organization, location, or user group instead of directly to the Test LAX 2 user.

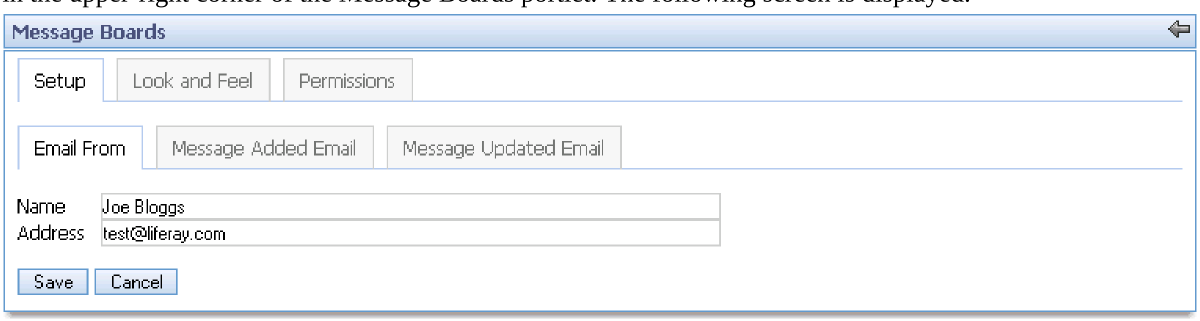
Assigning Individual Portlet Permissions

Goal: To assign the "Add Category" portlet permission to the Test LAX 2 end user.

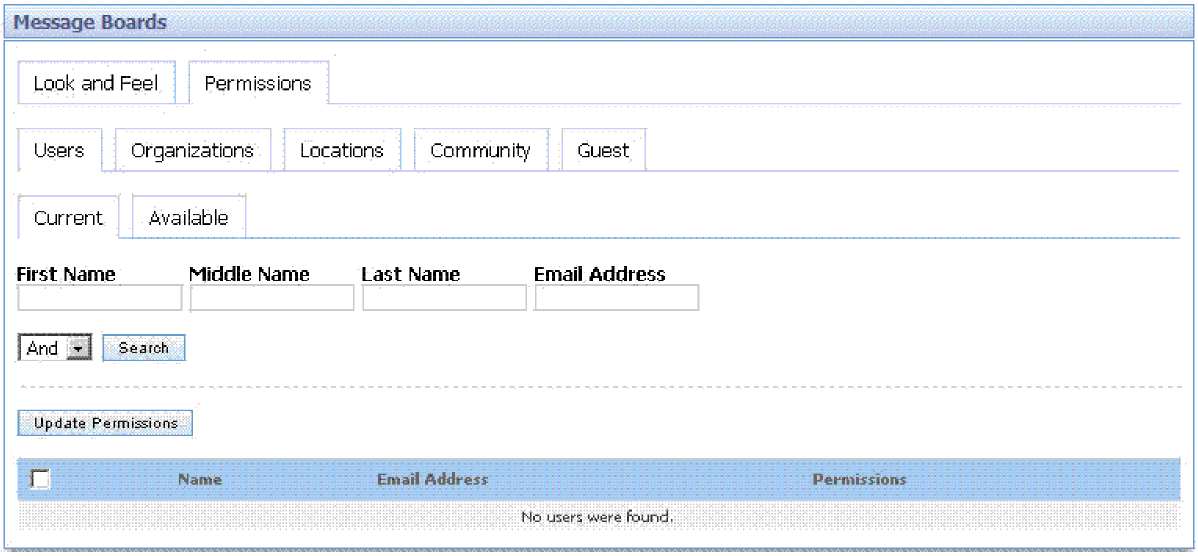
1. Assume that the Test LAX 2 user doesn't have permission to add a root category to the Message Boards portlet in the Support community. Based on this assumption, the portlet would appear like the following to Test LAX 2.



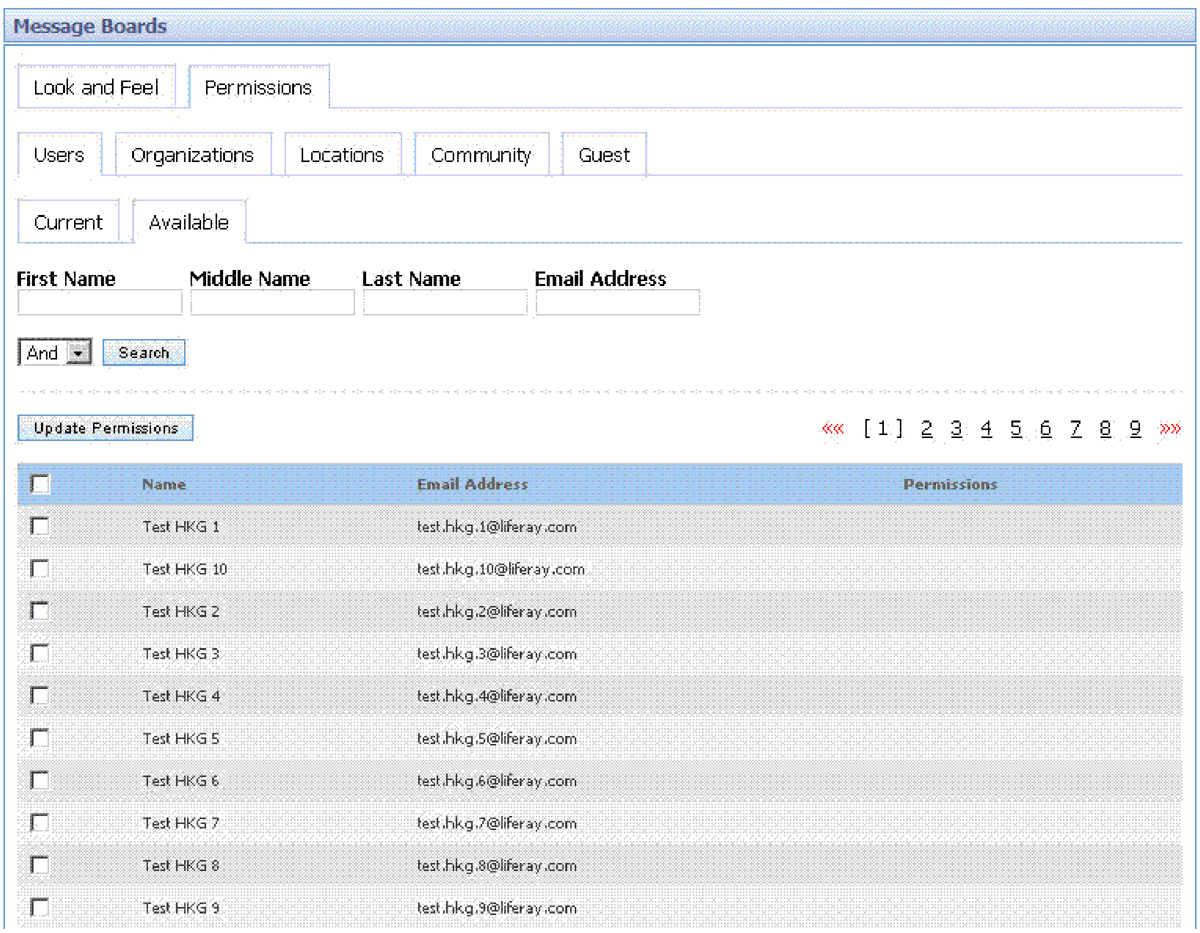
2. Notice in the screen above that there is no "Add Category" button available. Log in to the portal as an Administrator and go to the Support community located in the **My Places** menu. Click on the **Configuration** icon ( ) in the upper-right corner of the Message Boards portlet. The following screen is displayed.



3. Click on the **Permissions** tab. The following screen is displayed.

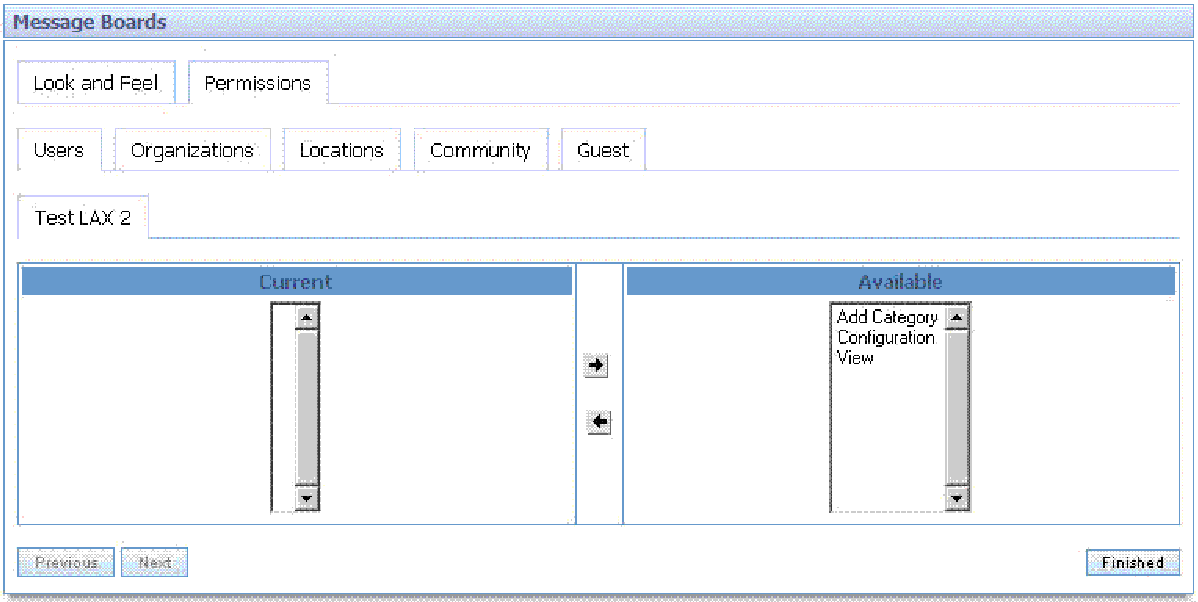


4. In the screen above, notice that the **User** tab and **Current** sub-tab are selected. This means that the current users that have portlet permissions assigned to them are being displayed. Obviously, there are no users that have portlet permissions for this particular portlet. Click on the **Available** tab. The following screen is displayed.

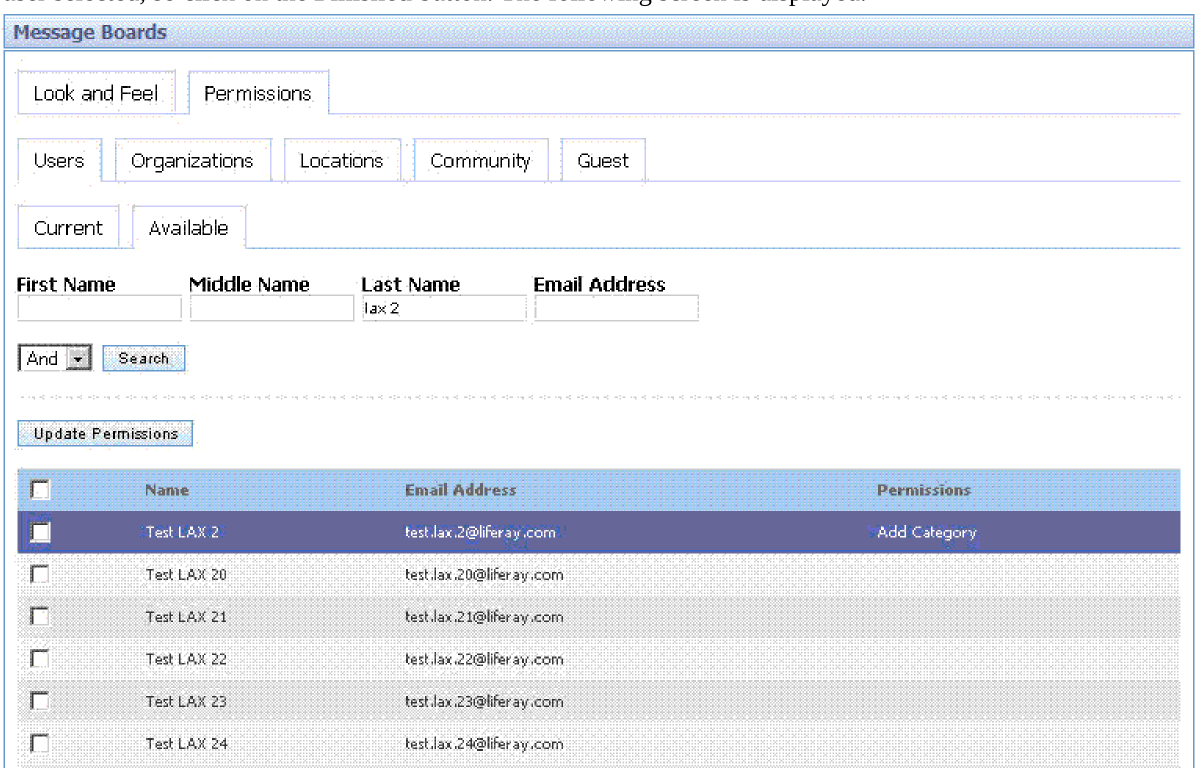


5. Locate user Test Lax 2. The instructions are the same as steps 3-4 of section 3.4 except that after checking the

Test LAX 2 checkbox, the administrator should click on the **Update Permissions** button. The following screen is displayed.

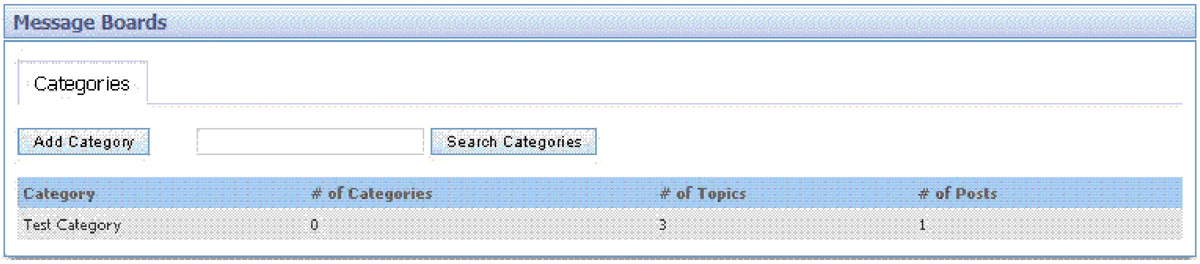


6. The screen above shows that the Test LAX 2 user currently has no portlet permissions assigned to her. Select **Add Category** from the Available select box and click on the right arrow to add it to the Current select box. If multiple users were selected in the previous step, the administrator can use the **Previous/Next** buttons to scroll through all of the selected users and assign portlet permissions to them. In this case, Test LAX 2 was the only user selected, so click on the **Finished** button. The following screen is displayed.



7. In the screen above, notice that the Test LAX 2 user has been updated with the “Add Category" portlet permission. To see this permission in effect, log in to the portal as Test LAX 2 and go to the Support community. The

user should see the following screen.



8. Note that the Test LAX 2 user now has permission to add a root category to the Message Boards portlet.

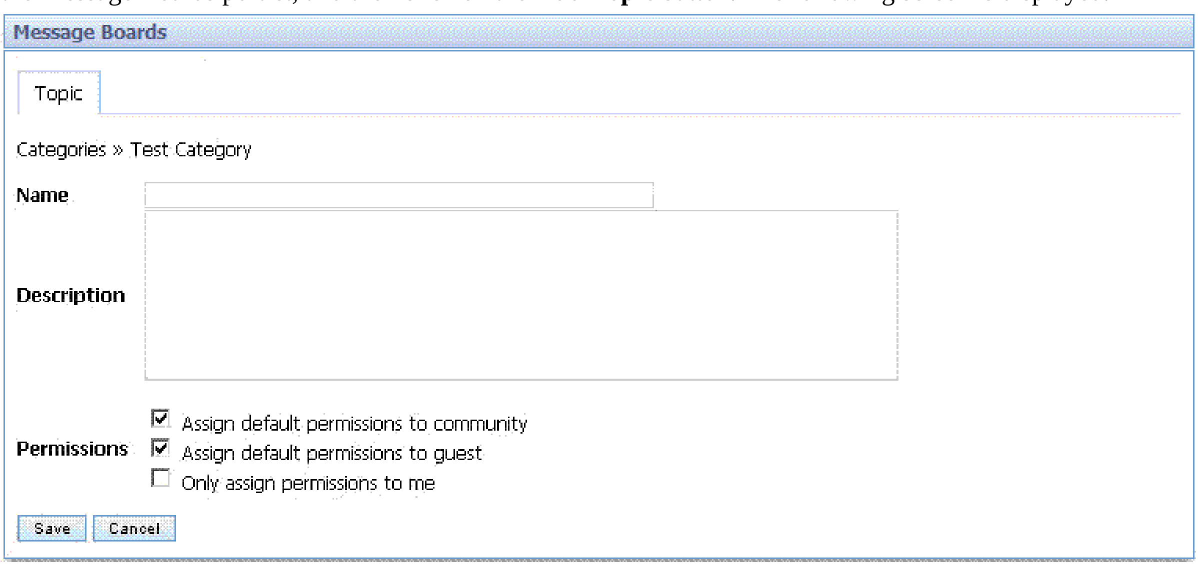
9. Alternatively, steps 4 – 7 can be repeated for the Organizations, Locations, User Groups, Community, or Guest tab for assigning portlet permissions to each of these entities.

   It should also be noted that portlet permissions are only applicable to the portlet instance for which they were configured. For example, Test LAX 2 can only add root categories to the message board in the Support community. Test LAX 2 would not be able to add root categories to message boards in other communities unless they were specifically configured as such.

Assigning Default Permissions

Goal: To create a new Message Board Topic in the Support community's message board and assign default permissions to it.

1. Log in to the portal as an Administrator and go to the Support community. Click on the "Test Category" link in the Message Boards portlet, and then click on the **Add Topic** button. The following screen is displayed.



2. The screen above shows the form for creating a new topic. Notice that the **Assign default permissions to community** and **Assign default permissions to guest** options are checked. By default, a new Message Board Topic allows community members (in this case, Support community members) to view it and add messages to it, and it allows guests to view it (NOTE: The process for setting these defaults is beyond the scope of this user guide. Please refer to the programming guide for details). If the administrator selects the **Only assign permissions to me** option, the default permissions options will be de-selected. This option means that only the current administrator will be assigned permissions to control this new topic after it has been created.

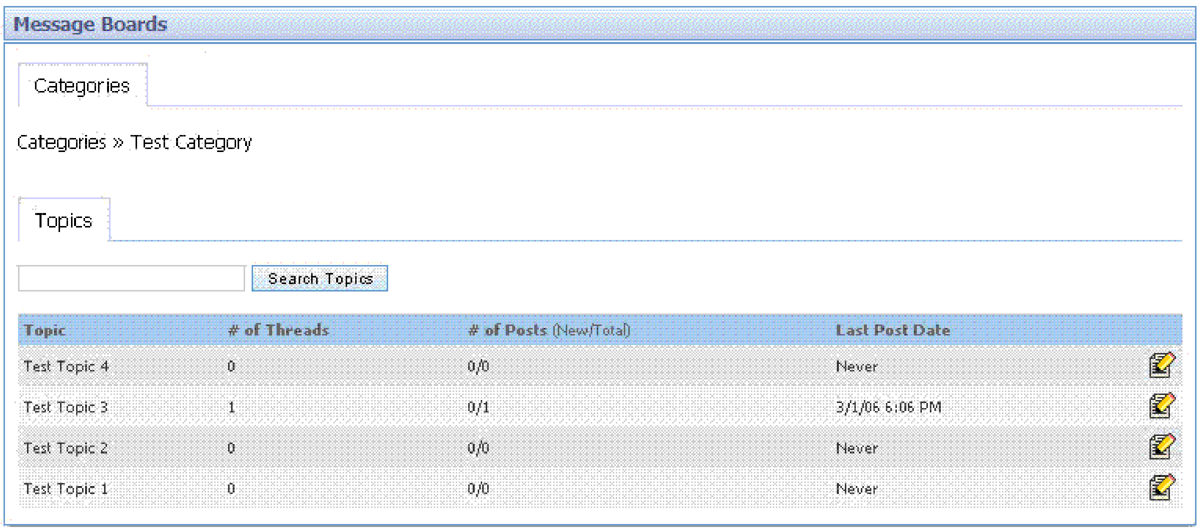
Keep the default permissions checkboxes checked. Enter "Test Topic 4" into the Name field and click the **Save** button. The administrator is returned to the topic list screen.

If the Test LAX 2 user were now to click on the "Test Category" link, the user would see the new "Test Topic 4" topic and would be able to view the contents of the topic and post a new thread/message to the topic because of the community default permissions.

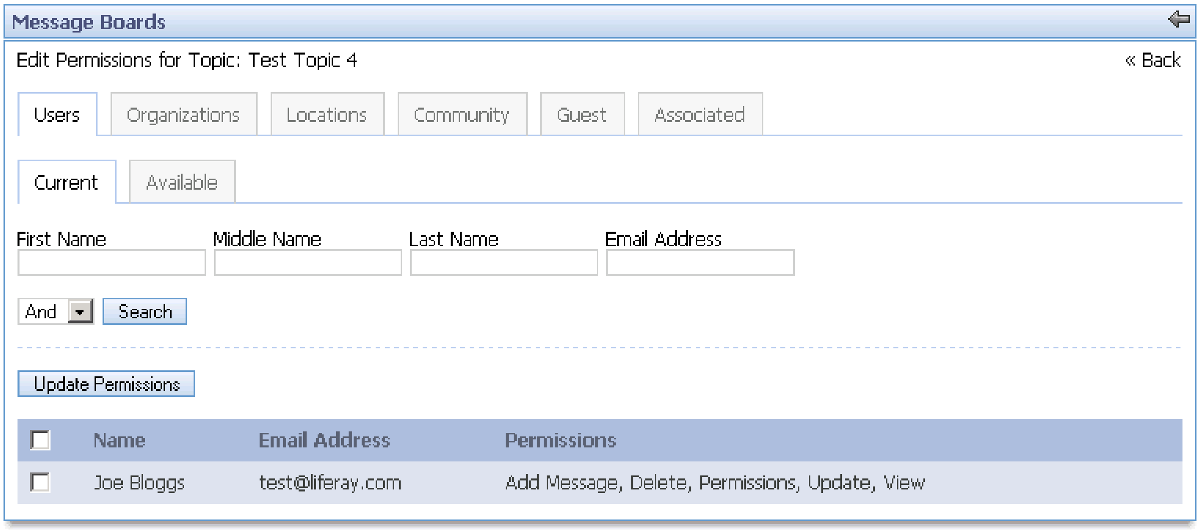
Assigning Individual Permissions

Goal: To assign a permission to user Test LAX 2 to delete the "Test Topic 4" topic in the Support community's Message Boards portlet.

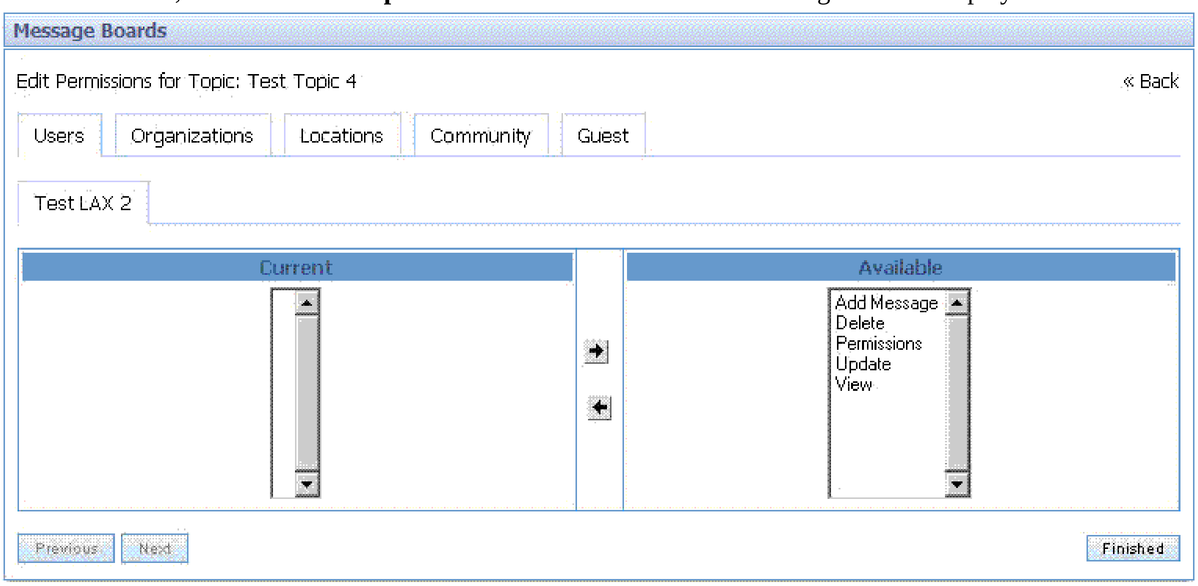
1. Log in to the portal as Test LAX 2 and go to the Support community. Click on the "Test Category" link in the Message Boards portlet. The following screen is displayed.



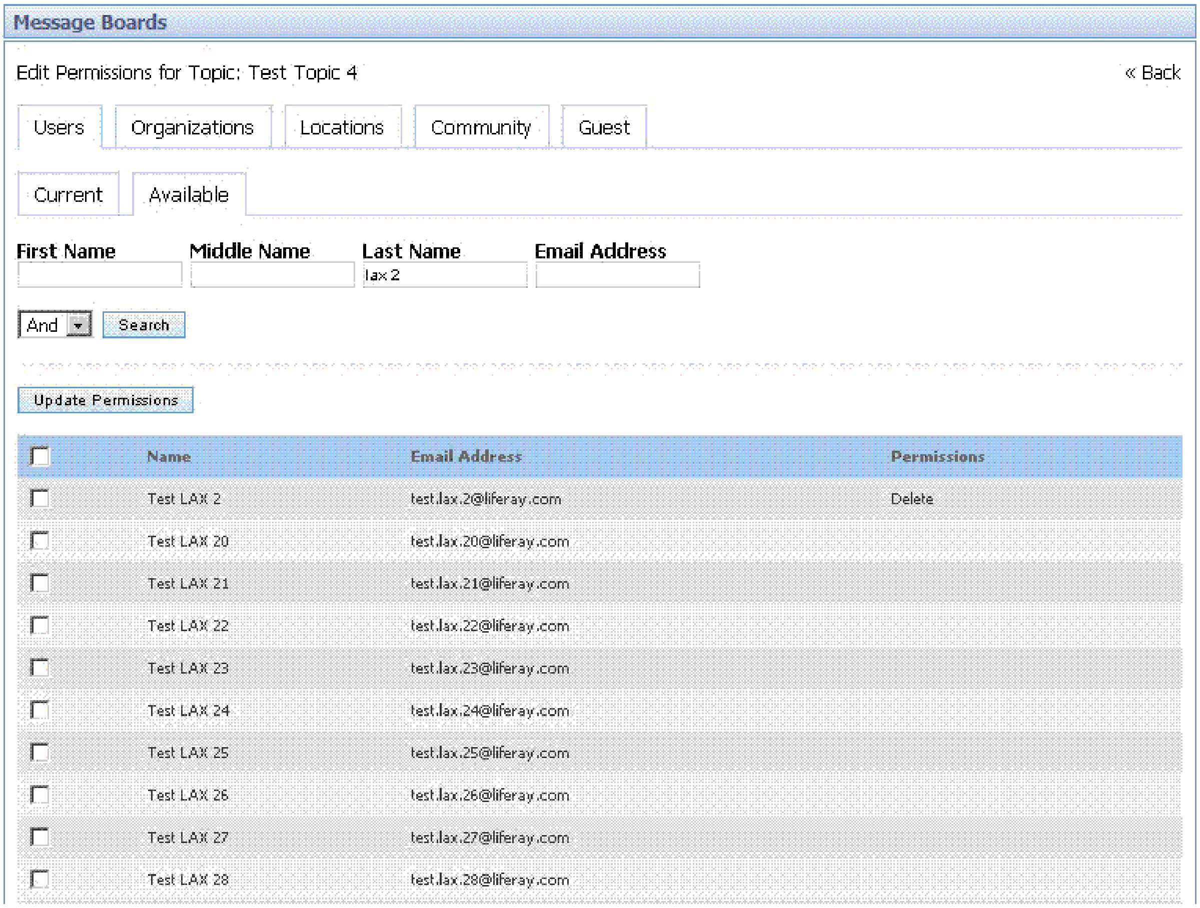
2. In the screen above, notice that the user has Update permissions on all of the topics due to the use case in section 3.3. Now log in to the portal as an Administrator, go to the Support community, click on the "Test Category" link in the Message Boards portlet, and then click on the **Permissions** icon for the "Test Topic 4" topic. The following screen is displayed.



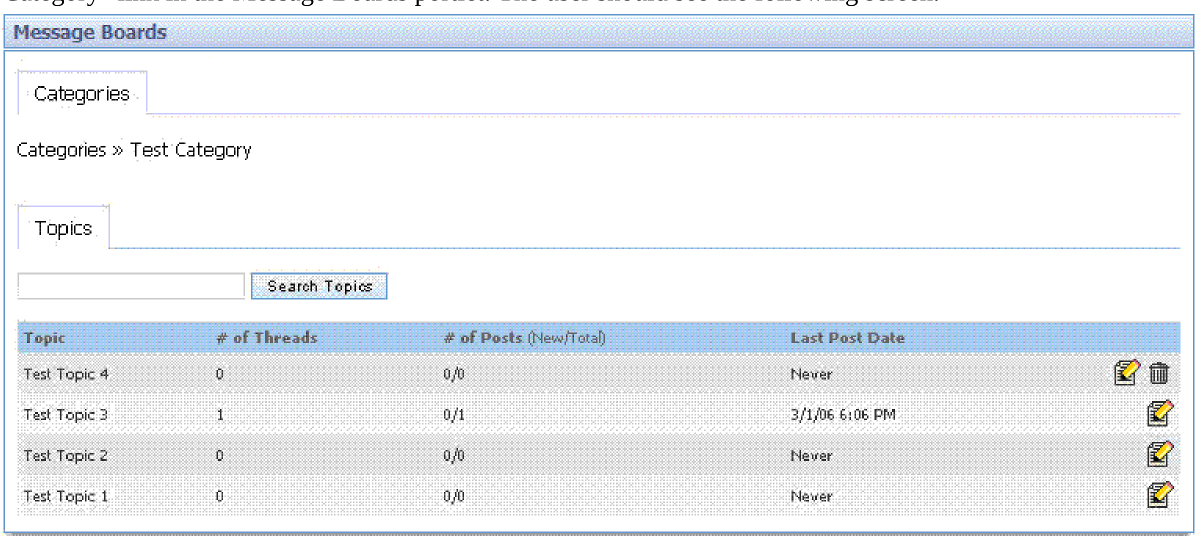
3. In the screen above, notice that the Users tab and the Current sub-tab are selected. This means that the current users who have permissions for the "Test Topic 4" topic are being displayed. Currently, only the Administrator (i.e., Joe Bloggs) has permissions on this topic. Go to the **Available** tab, find the Test LAX 2 user, check the user's checkbox, and click on the **Update Permissions** button. The following screen is displayed.



4. The screen above shows that the Test LAX 2 user currently has no permissions assigned to her. Select the **Delete** action from the Available select box and click on the right arrow to add it to the Current select box. If multiple users were selected in the previous step, the administrator can use the **Previous/Next** buttons to scroll through all of the selected users and assign permissions to them. In this case, Test LAX 2 was the only user selected, so click on the **Finished** button. The following screen is displayed.



5. In the screen above, notice that the Test LAX 2 user has been updated with the “Delete" permission. To see this permission in effect, log in to the portal as Test LAX 2, go to the Support community, and click on the “Test Category" link in the Message Boards portlet. The user should see the following screen.



6. In the screen above, note that the “Test Topic 4" topic now has a **Delete** icon ( ) next to it. Therefore, the Test LAX 2 user has permission to delete the “Test Topic 4" topic.

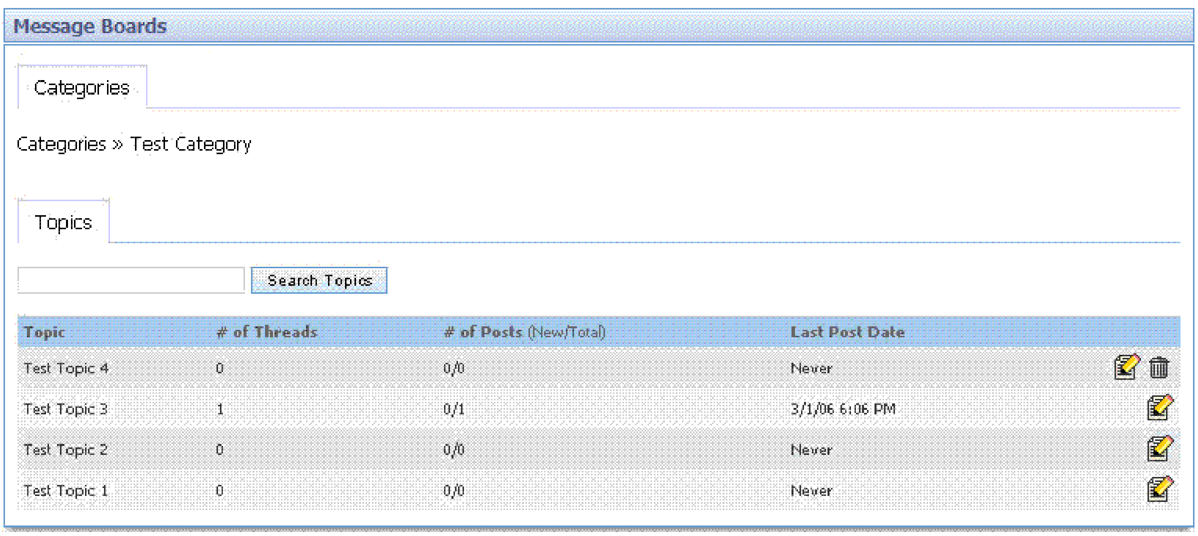
7. Alternatively, steps 3 – 6 can be repeated for the Organizations, Locations, User Groups, Community, or Guest tab for assigning individual permissions to each of these entities. Note that there is a special case for assigning individual permissions to Locations that requires a slightly different use case which is covered in the next section.

   It should also be noted that very fine-grained permissioning can be obtained through using individual permissions. As this use case showed, administrators have the power to control objects within a portlet at a very micro level. For example, take the four topics in “Test Category." An administrator could easily decide that all users in the Liferay USA organization can post messages to “Test Topic 1," but only members of the Support community can view the messages in “Test Topic 2." In addition, only Test LAX 2 can update “Test Topic 3," while anyone in the Liferay San Francisco location can update “Test Topic 4." The possibilities are endless!

Special Case: Assigning Individual Permissions to Locations

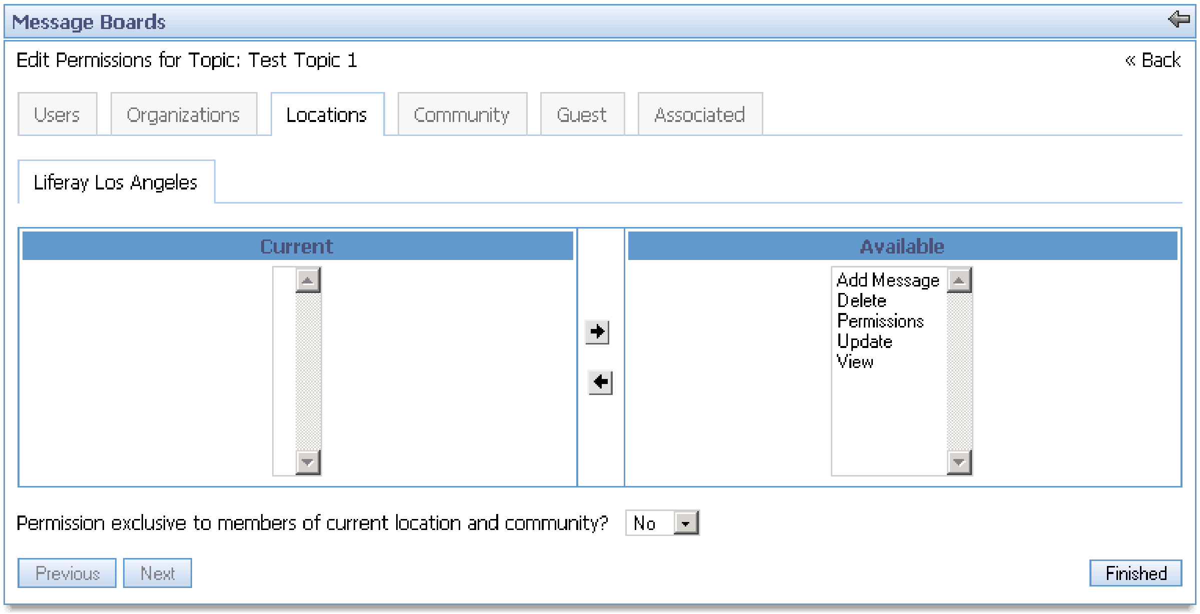
Goal: First, to assign a permission to the Liferay Los Angeles location that allows members of that location (including Test LAX 2) to delete the “Test Topic 1 topic in the Support community’s Message Boards portlet. Second, to assign an "exclusive" permission to the Liferay Chicago location that removes the delete permission from all Liferay Los Angeles members.

1. Log in to the portal as Test LAX 2 and go to the Support community. Click on the “Test Category" link in the Message Boards portlet. The following screen is displayed.



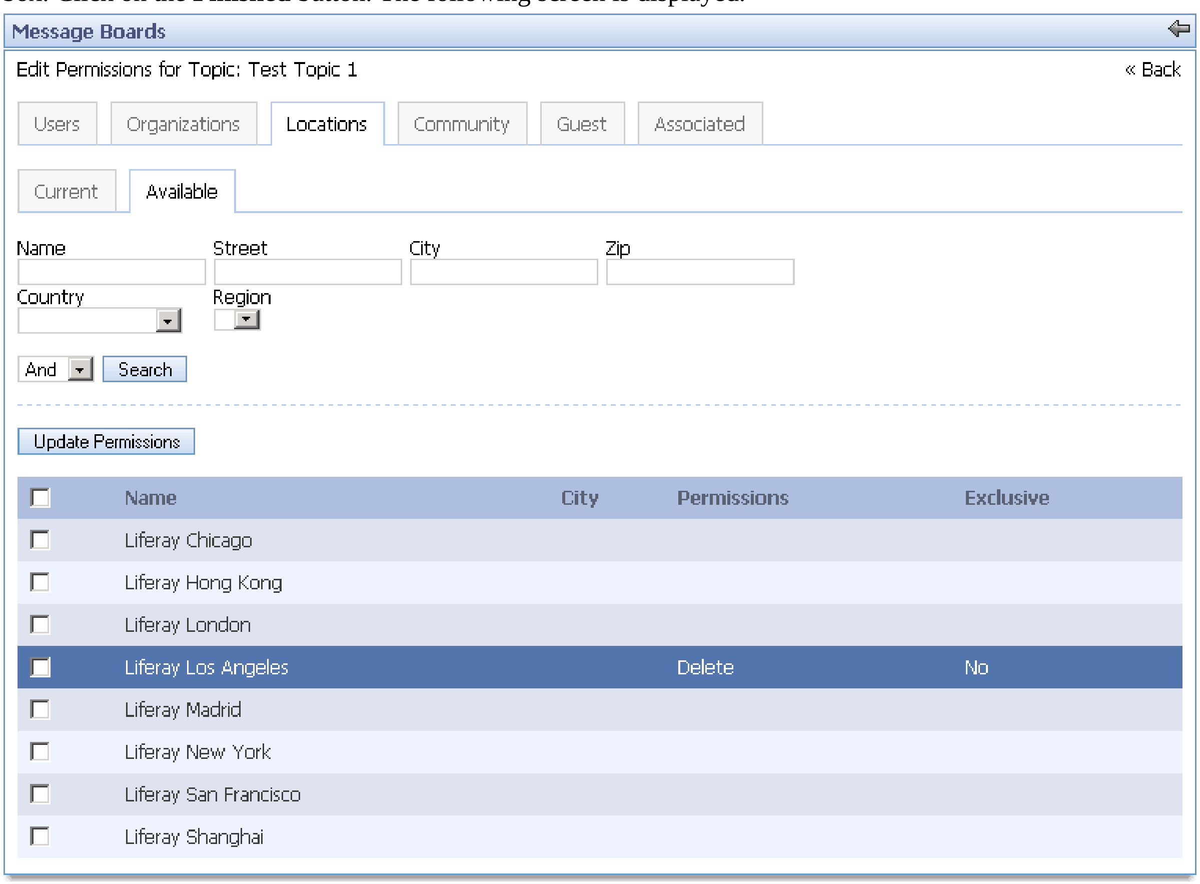
2. In the screen above, notice that the user has Update permissions on all of the topics due to the use case in section 3.3, and has Delete permission on “Test Topic 4" due to the use case in section 3.7. Now log in to the portal as an Administrator, go to the Support community, click on the “Test Category" link in the Message Boards portlet, and then click on the **Permissions** icon for the “Test Topic 1" topic.

   Now click on the **Locations** tab, and then click on the **Available** sub-tab. Check the Liferay Los Angeles checkbox and click on the **Update Permissions** button. The following screen is displayed.

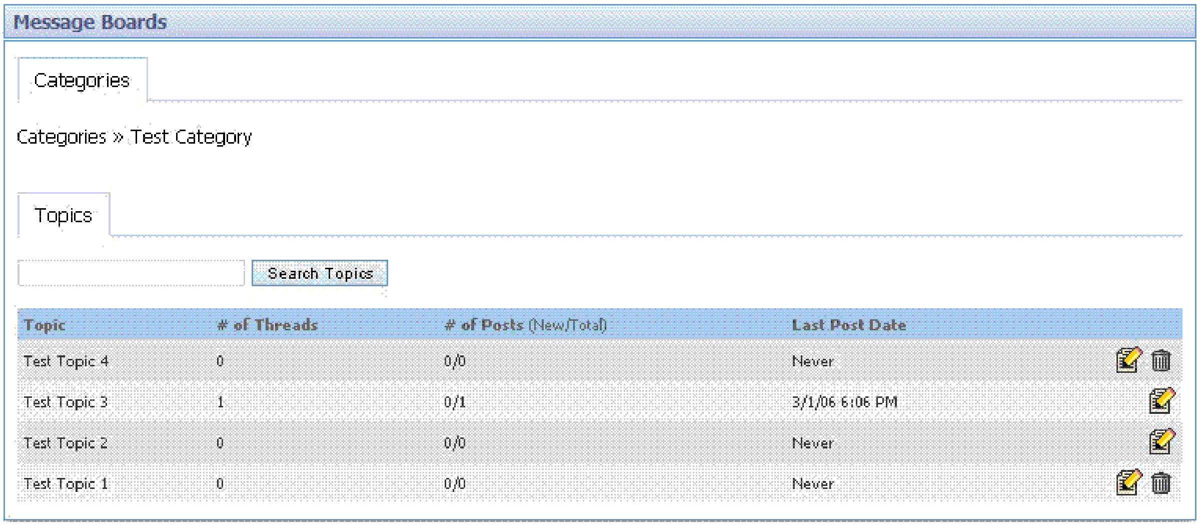


3. The screen above shows that the Liferay Los Angeles location currently has no permissions assigned to it. Notice the “Permission exclusive to members of current location and community?" drop-down. Leave it defaulted to “No," but think about what this question might mean. It will be fully explained later.

   Select the **Delete** action from the Available select box and click on the right arrow to add it to the Current select box. Click on the **Finished** button. The following screen is displayed.

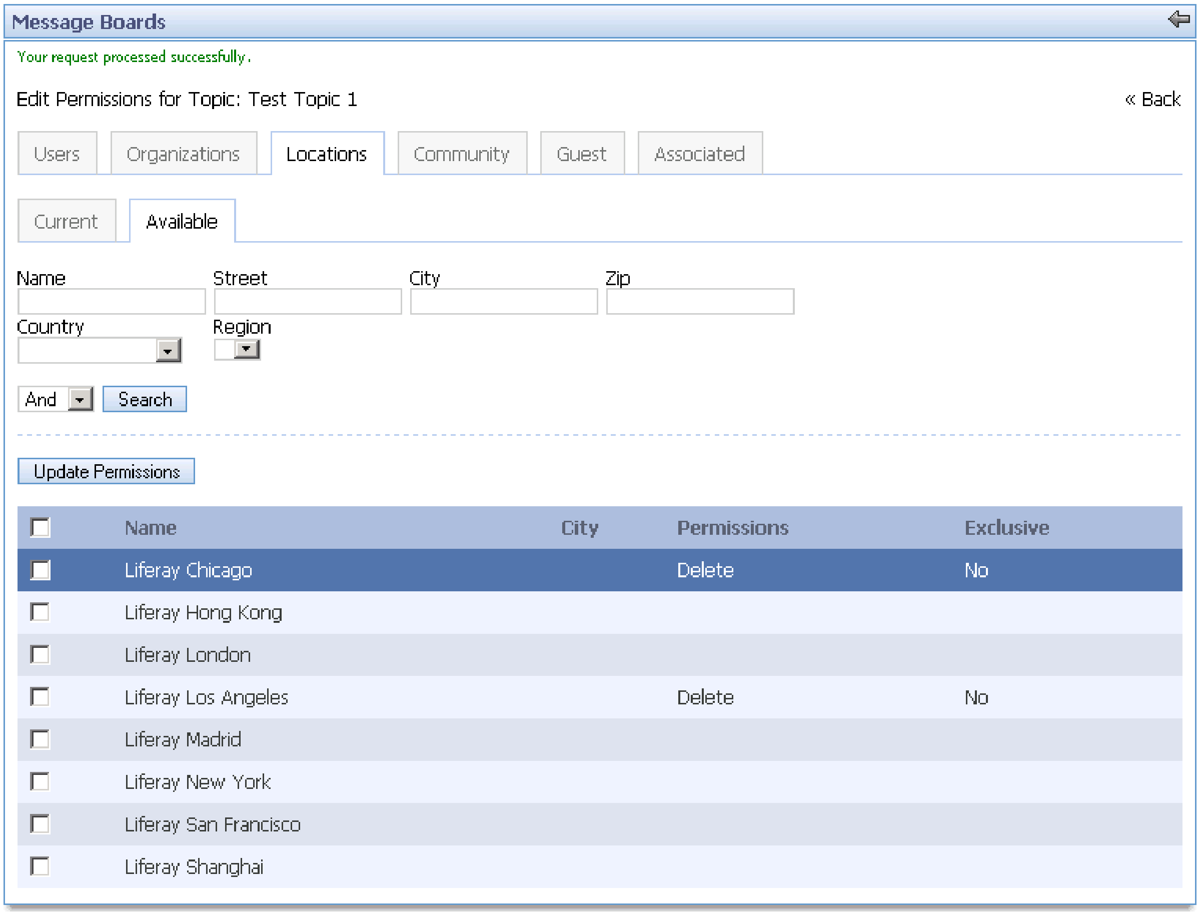


4. In the screen above, notice that the Liferay Los Angeles location has been updated with the “Delete" permission and an Exclusive value of “No." This value will be explained later. To see this permission in effect, log in to the portal as Test LAX 2, go to the Support community, and click on the “Test Category" link in the Message Boards portlet. The user should see the following screen.

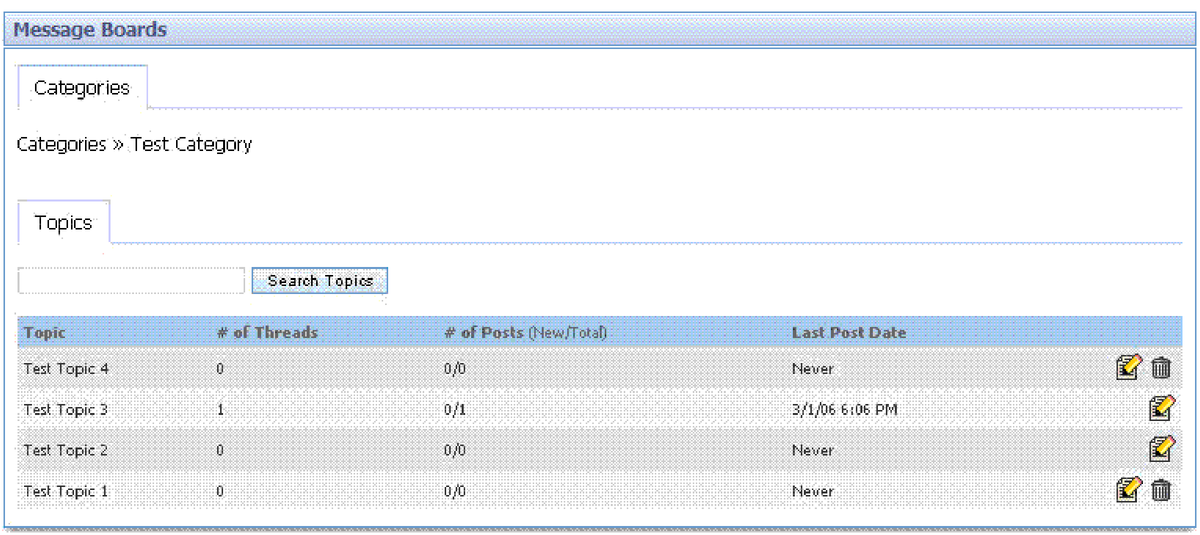


5. In the screen above, notice that “Test Topic 1" now has a **Delete** icon () next to it. Therefore, the Test LAX 2 user has permission to delete “Test Topic 1."

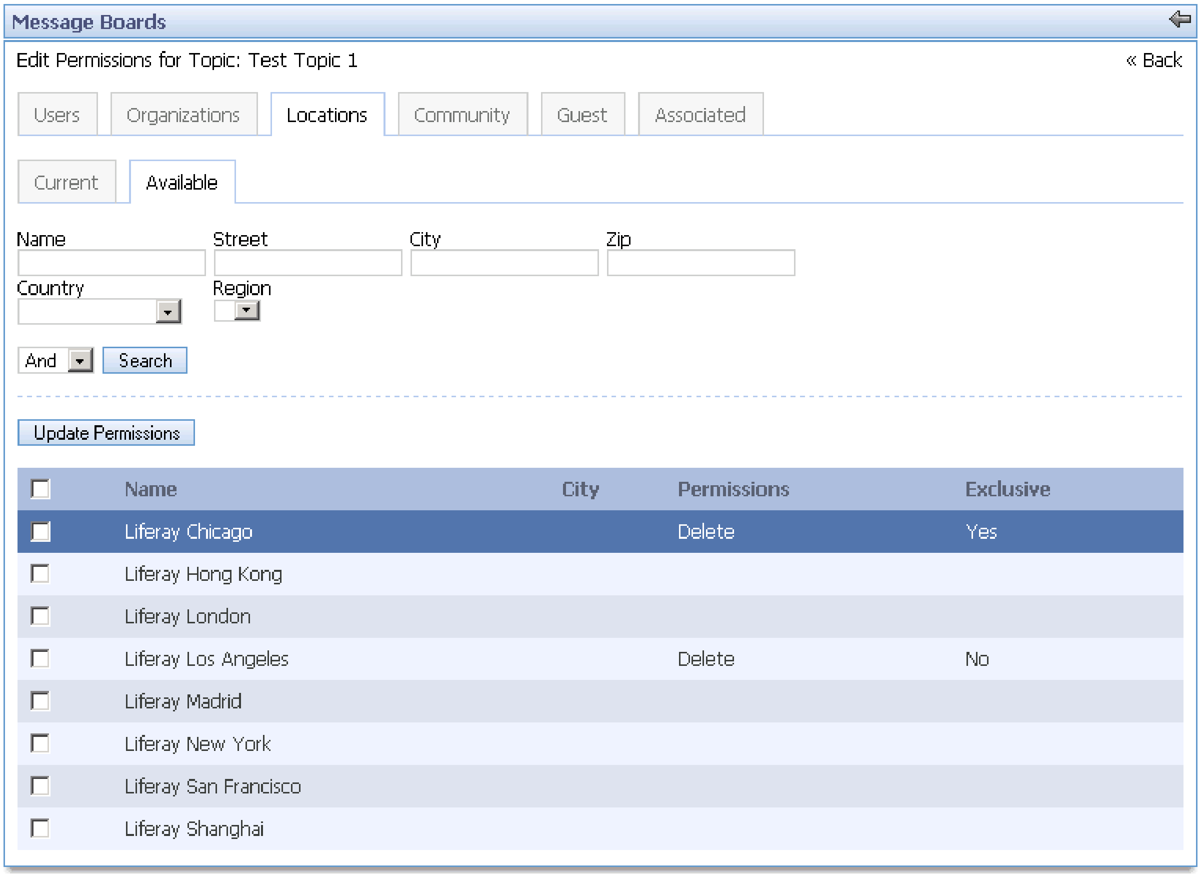
6. Now repeat steps 1 – 5 for the Liferay Chicago location. The Administrator’s screen should appear as follows.



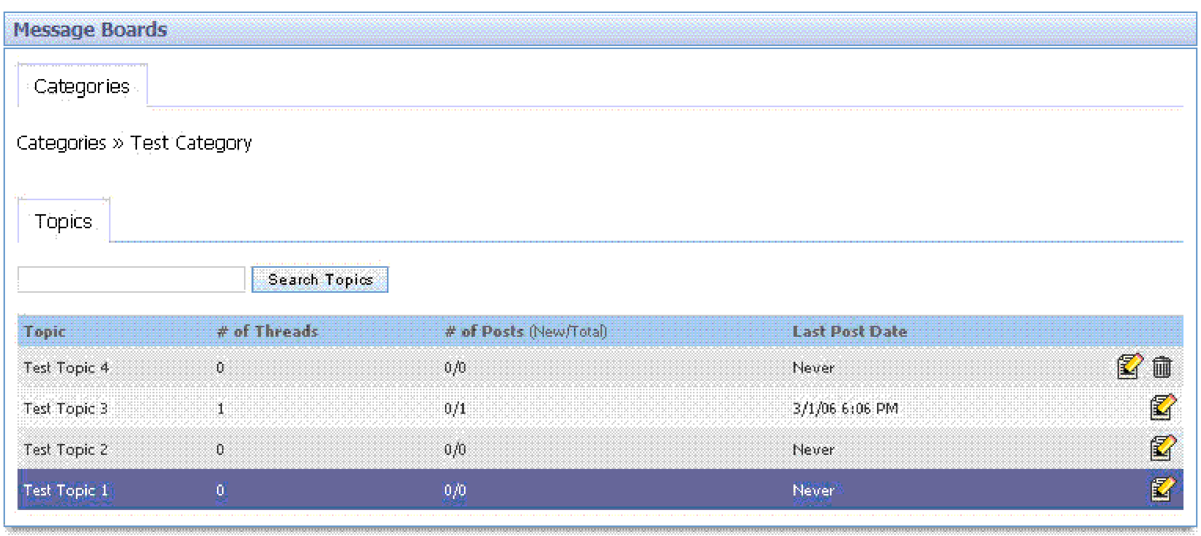
…and Test LAX 2 should still see the same screen as before:



7. Now go back to the Administrator’s view, check the Liferay Chicago checkbox, and click the **Update Permissions** button. From the “Permission exclusive to members of current location and community?" drop-down menu, select “Yes" and click the **Finished** button. Now the Administrator’s screen looks like the following.



8. In the screen above, notice the “Exclusive" value for Liferay Chicago has now changed from “No" to “Yes." Go back to Test LAX 2’s view and refresh the screen. It should appear as the following.



9. In the screen above, notice the Test LAX 2 user no longer has permission to delete “Test Topic 1."

Exclusive Permission Defined

Confused? Hopefully this discussion will clear things up.

Let’s consider what occurred in this use case. Initially, the delete permission for “Test Topic 1" was added to the Liferay Los Angeles location. As expected, the Test LAX 2 user received the delete permission. Then, the delete permission for “Test Topic 1" was added to the Liferay Chicago location. Though an explicit check wasn’t made, it is assumed that this allowed all members of the Liferay Chicago location to also have delete permission. In other words, any member of *either* Liferay Chicago *or* Liferay Los Angeles had delete permission on “Test Topic 1."

However, when the value of the “Permission exclusive to members of current location and community?" drop-down menu was changed from “No" to “Yes" for Liferay Chicago, suddenly Test LAX 2 lost the delete permission. Why?

By answering “Yes" to the question, the permission became an exclusive one. In other words, in order to have the delete permission on “Test Topic 1," a user had to be a member of *both* the Liferay Chicago location *and* the Support community. Since Test LAX 2 was *only* a member of the Support community and *not* a member of the Liferay Chicago location, LAX 2 didn’t meet the criteria and was excluded from receiving the delete permission.

Exclusive permissions take precedence over all other permissions *except* permissions assigned directly to a user. Therefore, even if the delete permission had been assigned to the Liferay Los Angeles location and the Support community, or if the delete permission had enterprise scope and had been assigned to a role that was assigned to Test LAX 2, it wouldn’t have mattered. The exclusive permission would still have taken precedence, and Test LAX 2 would not have received the delete permission. However, if the delete permission had been assigned directly to the Test LAX 2 user, LAX 2 would have received the permission

Although exclusive permissions are not additive with other permissions, they are additive among themselves. In other words, if the “Permission exclusive to members of current location and community?” drop-down was changed from “No” to “Yes” for Liferay Los Angeles as well, Test LAX 2 would once again receive the delete permission. However, it should be noted that only Liferay Chicago and Liferay Los Angeles users would receive the permission, even if the delete permission was assigned to other users through other entities (e.g., via organization, via location, via community, via role, etc.).

Delegating Permissions

So far in this discussion, it has been assumed that a user with the "Administrator" role has been creating roles and assigning permissions to various entities. However, it is also possible for an Administrator to *delegate* permissions to users which allow them to have certain administrative rights as well. The following sections will explain each of these scenarios using use cases.

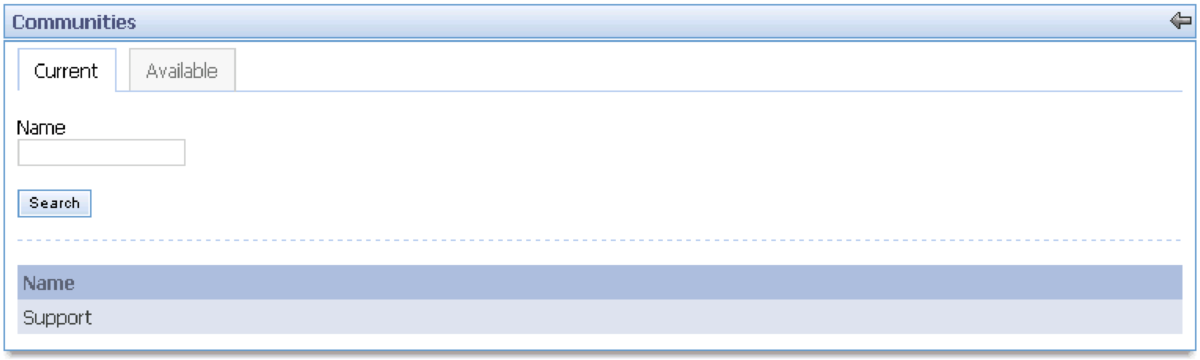
Assumptions

For the purposes of this discussion, assume the Administrator has created a role called "Delegated Admin" and assigned it to the Test LAX 2 user. Also assume that the "Enterprise Admin" portlet and the "Communities" portlet have been added to the Support community.

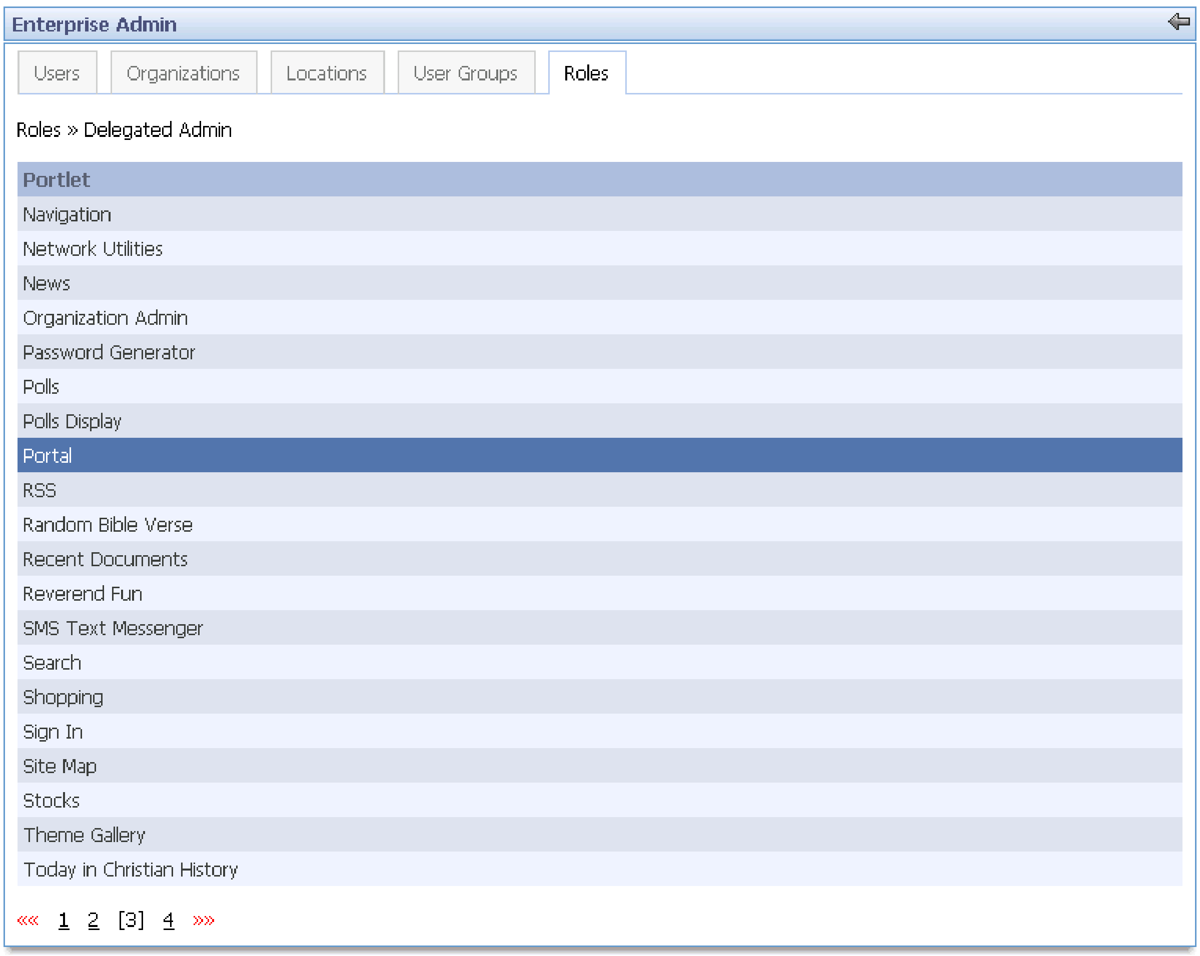
Portal Permissions

Goal: To assign the Test LAX 2 user permissions to add communities, organizations, and roles to the system.

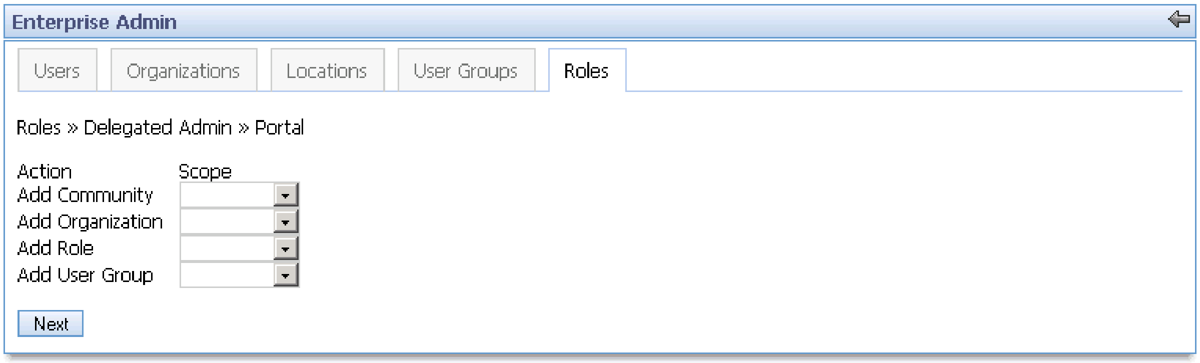
1. Log in to the portal as Test LAX 2 and go to the Support community. Click on the **Current** tab in the Communities portlet. The following screen is displayed.



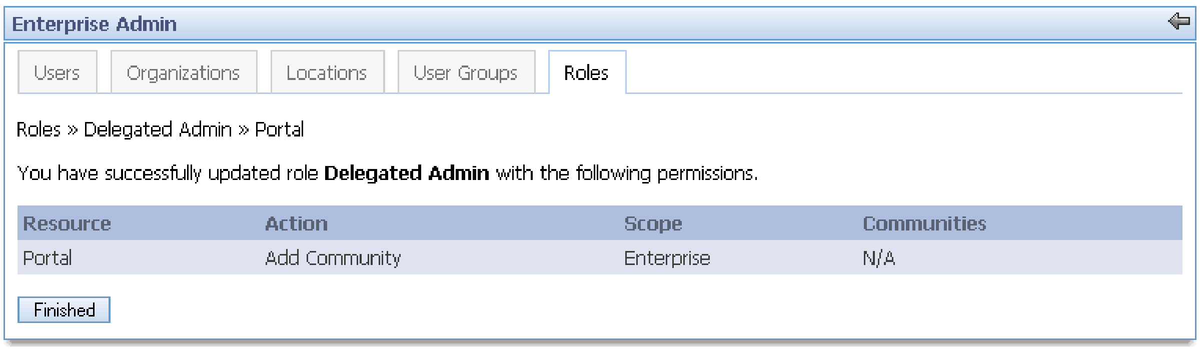
2. In the screen above, notice the Test LAX 2 user has no way of adding a new community to the system. Now log in to the portal as an Administrator. Go to the Support community and click on the **Roles** tab in the Enterprise Admin portlet. Click on the **Delegate** icon next to the "Delegated Admin" role. The following screen is displayed.



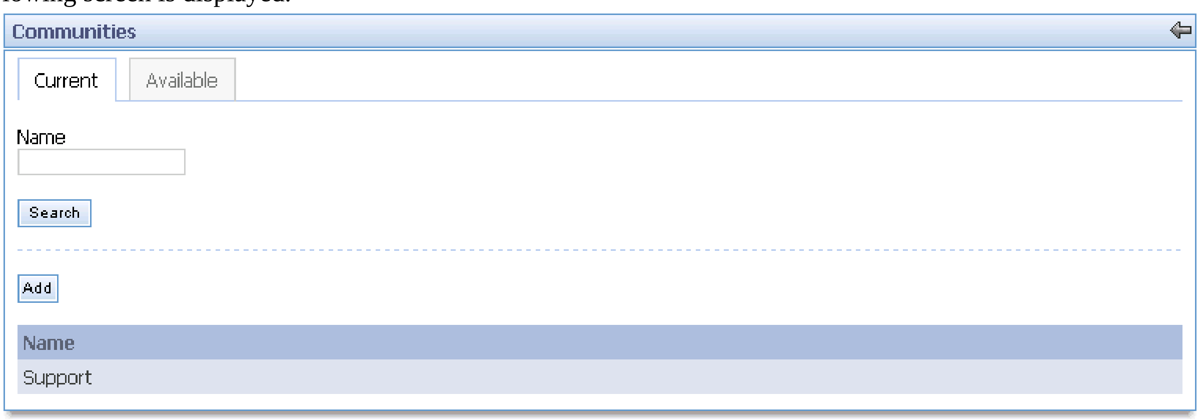
3. Find the **Portal** link in the list and click on it. The following screen is displayed.



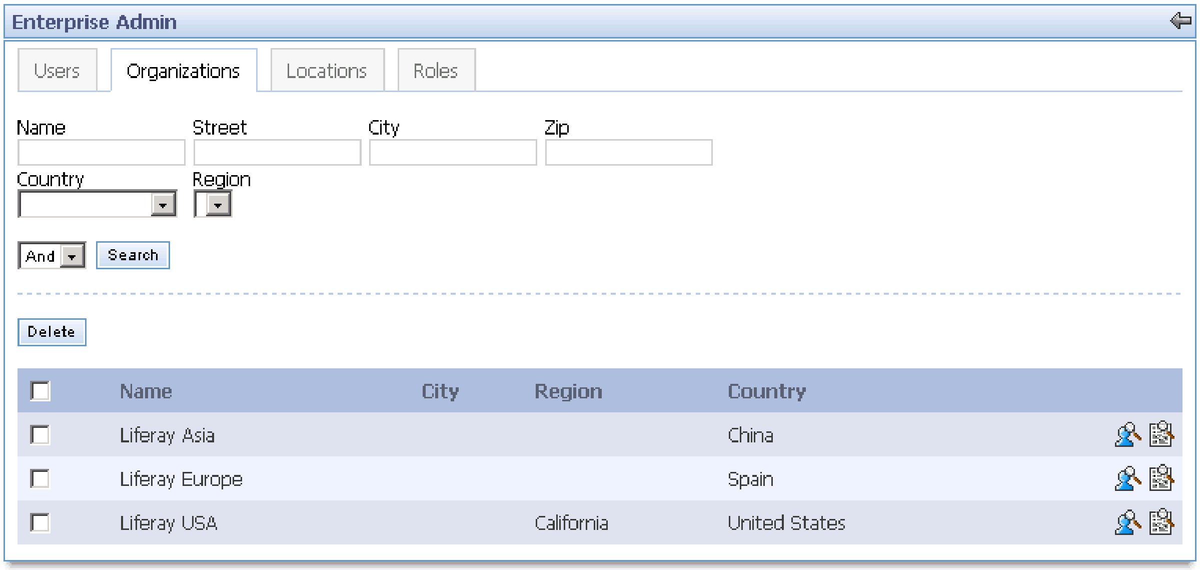
4. Choose "Enterprise" from the **Scope** drop-down next to the "Add Community" action. Click the **Next** button. The following screen is displayed.



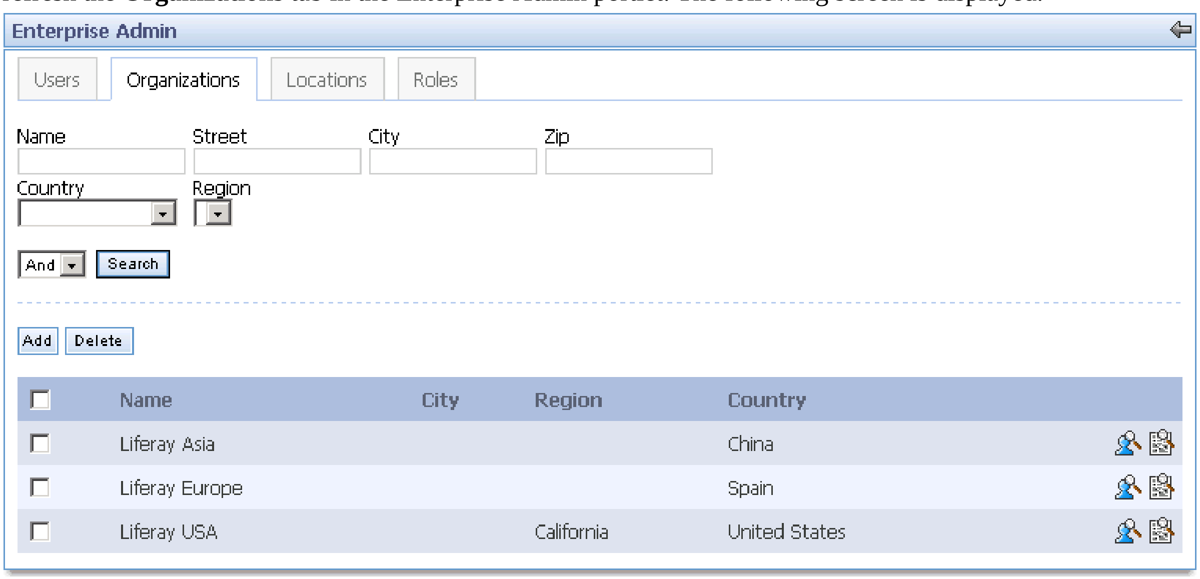
5. The result of these steps is that any user with the "Delegated Admin" role can now add communities to the system. To confirm this, go back to Test LAX 2 and refresh the **Current** tab in the Communities portlet. The following screen is displayed.



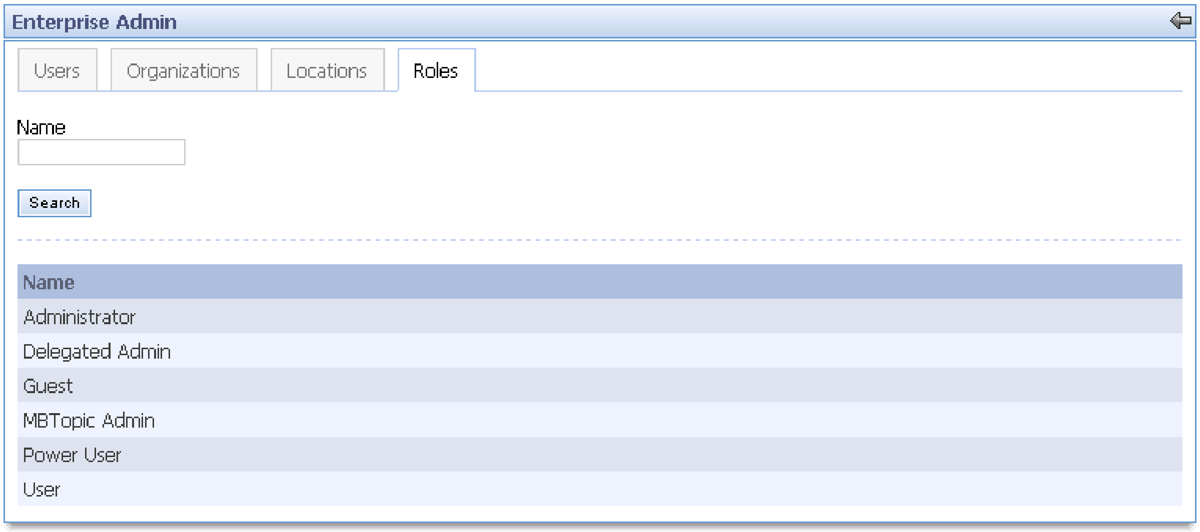
6. In the screen above, notice there is now an **Add** button. We will add a new community in a subsequent use case. Now, as Test LAX 2, go to the Enterprise Admin portlet and click on the **Organizations** tab. The following screen is displayed.



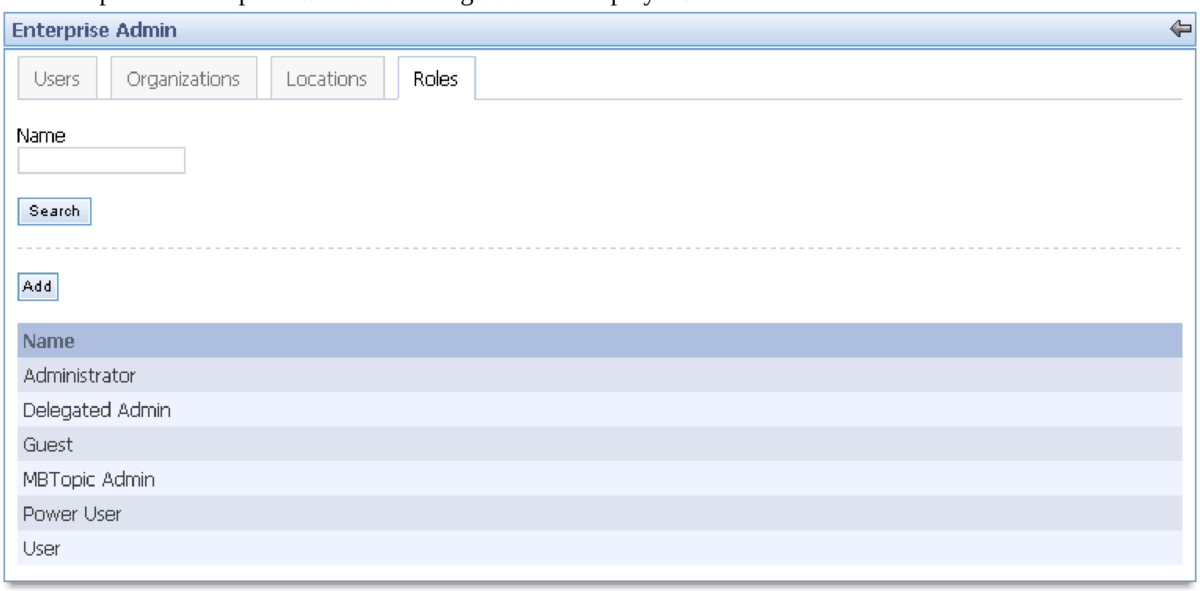
7. In the screen above, notice there is no way for Test LAX 2 to add a new organization to the system. Go back to the Administrator and perform steps 2-4 again, only this time in step 3, choose "Enterprise" from the **Scope** drop-down next to the "Add Organization" action. These steps have enabled any user with the "Delegated Admin" role to have permission to add organizations to the system. To confirm this, go back to Test LAX 2 and refresh the **Organizations** tab in the Enterprise Admin portlet. The following screen is displayed.



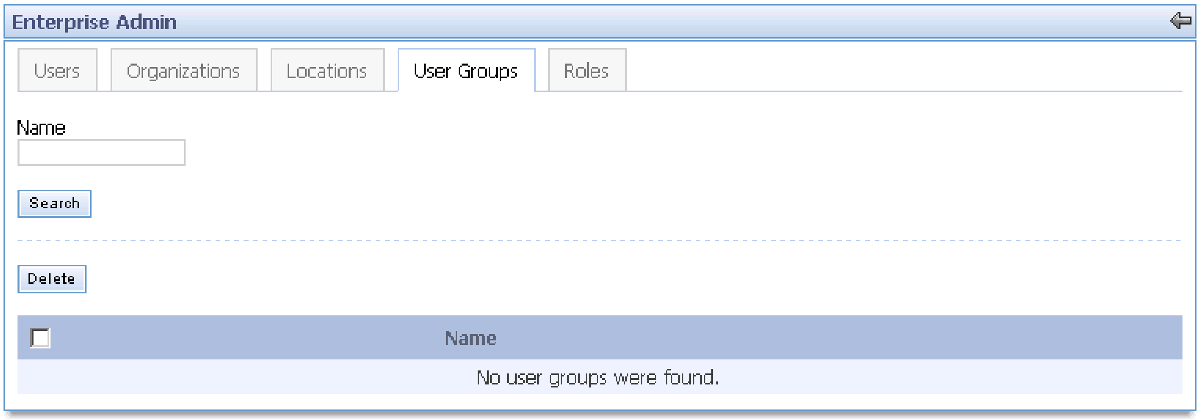
8. In the screen above, notice there is now an **Add** button. We will add an organization in a subsequent use case. Now, as Test LAX 2, click on the **Roles** tab in the Enterprise Admin portlet. The following screen is displayed.



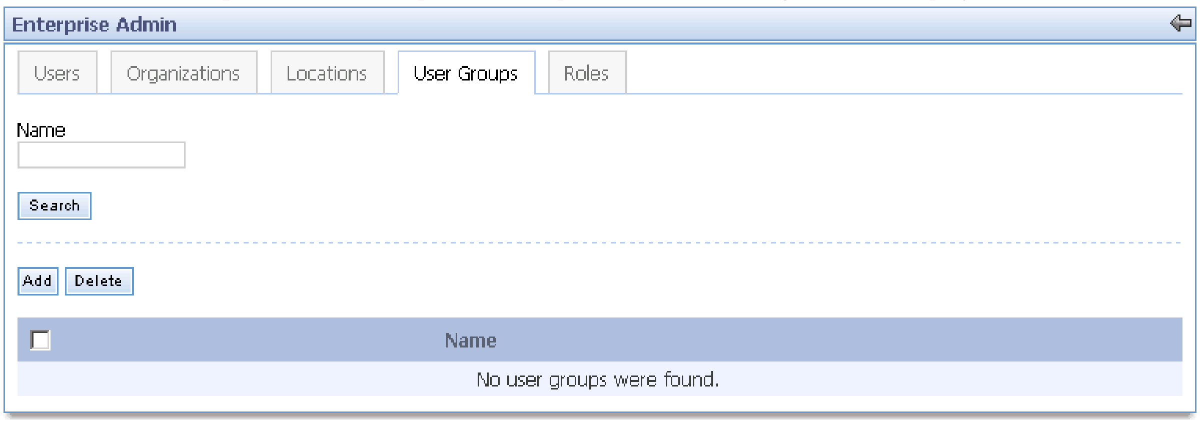
9. In the screen above, notice there is no way for Test LAX 2 to add a new role to the system. Go back to the Administrator and perform steps 2-4 again, only this time in step 3, choose "Enterprise" from the **Scope** drop-down next to the "Add Role" action. These steps have enabled any user with the "Delegated Admin" role to have permission to add roles to the system. To confirm this, go back to Test LAX 2 and refresh the **Roles** tab in the Enterprise Admin portlet. The following screen is displayed.



10. In the screen above, notice there is now an **Add** button. We will add a role in a subsequent use case. Now, as Test LAX 2, click on the **User Groups** tab in the Enterprise Admin portlet. The following screen is displayed.



11. In the screen above, notice there is no way for Test LAX 2 to add a new user group to the system. Go back to the Administrator and perform steps 2-4 again, only this time in step 3, choose "Enterprise" from the **Scope** drop-down next to the "Add User Group" action. These steps have enabled any user with the "Delegated Admin" role to have permission to add user groups to the system. To confirm this, go back to Test LAX 2 and refresh the **User Groups** tab in the Enterprise Admin portlet. The following screen is displayed.

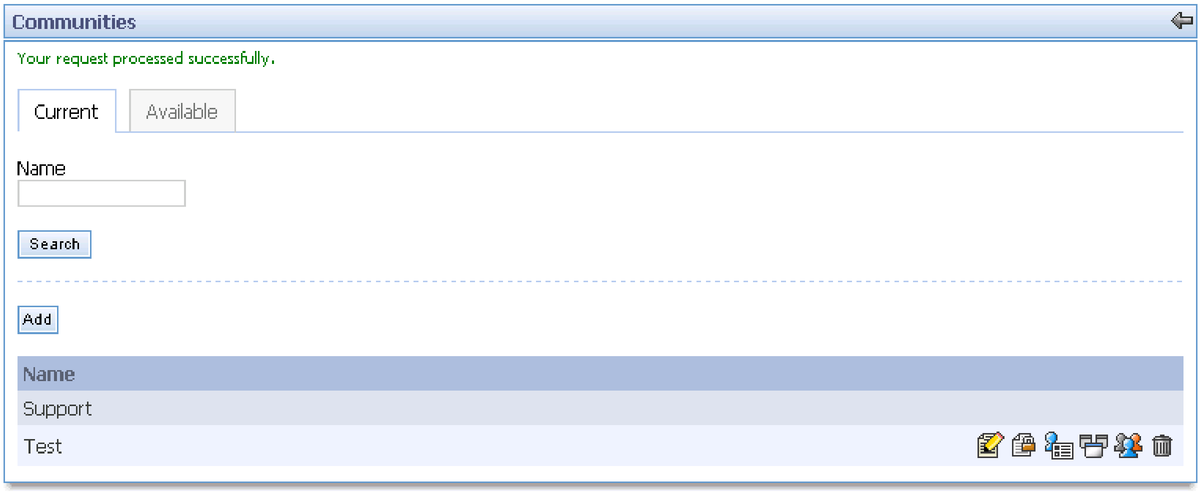


12. In the screen above, notice there is now an **Add** button. We will add a user group in a subsequent use case.

Community Permissions

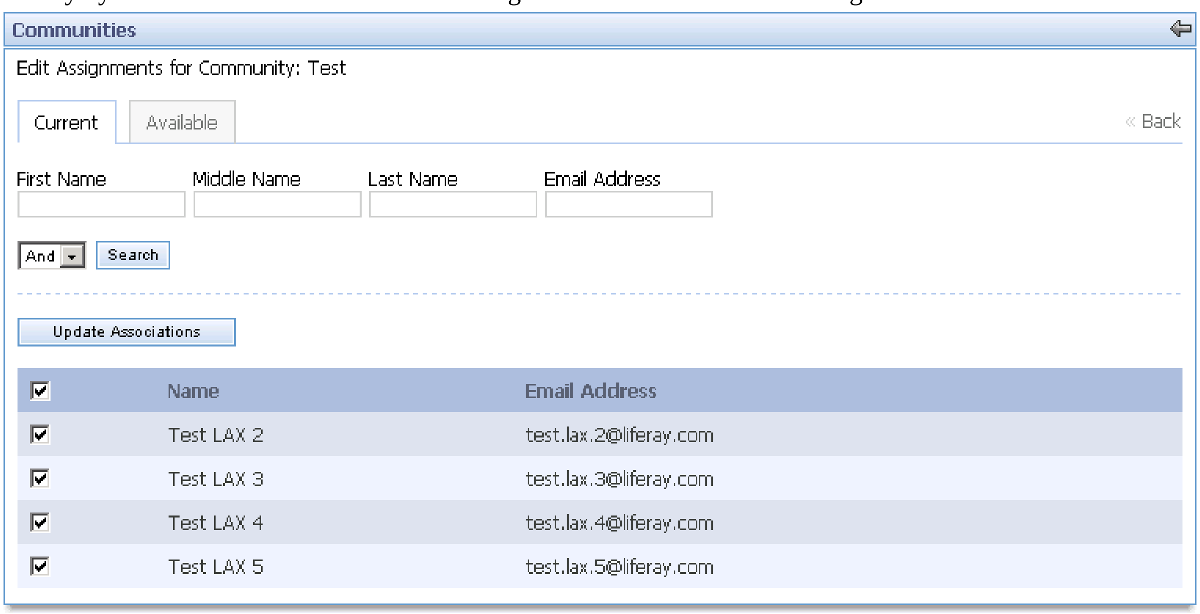
Goal: To understand the concept of a "Community Admin" and how a "Community Admin" can further delegate permissions to members of the community.

1. Log in to the portal as Test LAX 2 and go to the Support community. Click on the **Current** tab in the Communities portlet. As a result of the previous use case, Test LAX 2 has permission to add a new community. Add a new community called "Test". The **Current** tab in the Communities portlet should now look like the following screen.



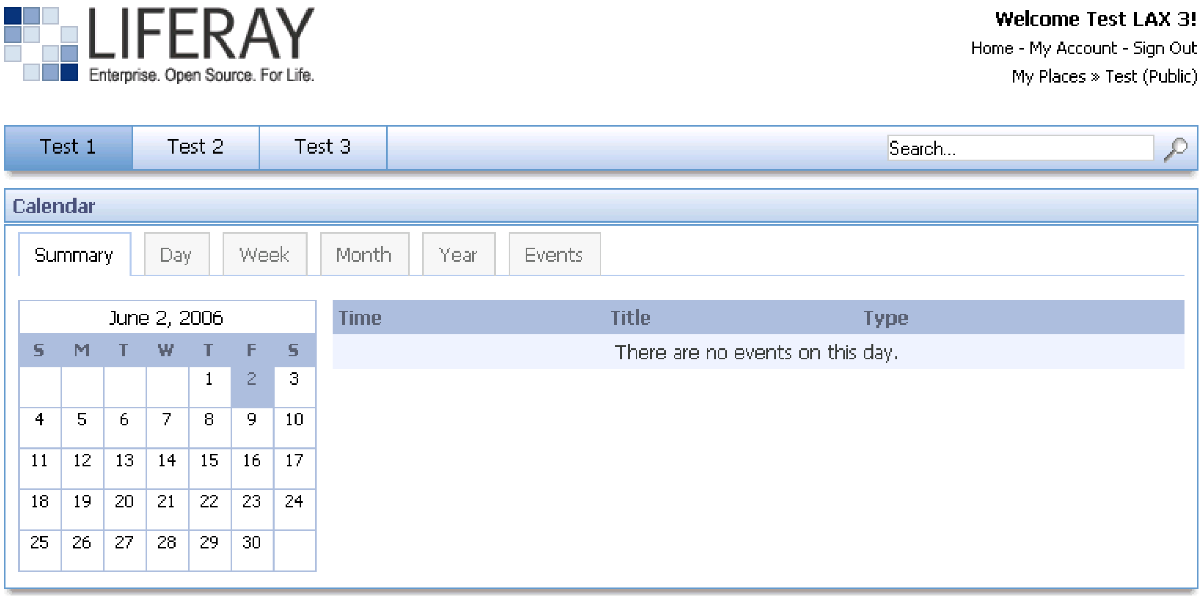
2. In the screen above, notice that the "Test" community has several icons next to it. When a user creates a new community, that user automatically becomes the "Community Admin" of that community. Therefore, the user has permission to perform all functions to that new community.

   To start, let's add some members to the "Test" community. Click on the **Assign** icon and associate users Test LAX 3, Test LAX 4, and Test LAX 5 with the community. Notice that Test LAX 2 is a member of the community by default. The **Current** tab under Assign should look like the following.

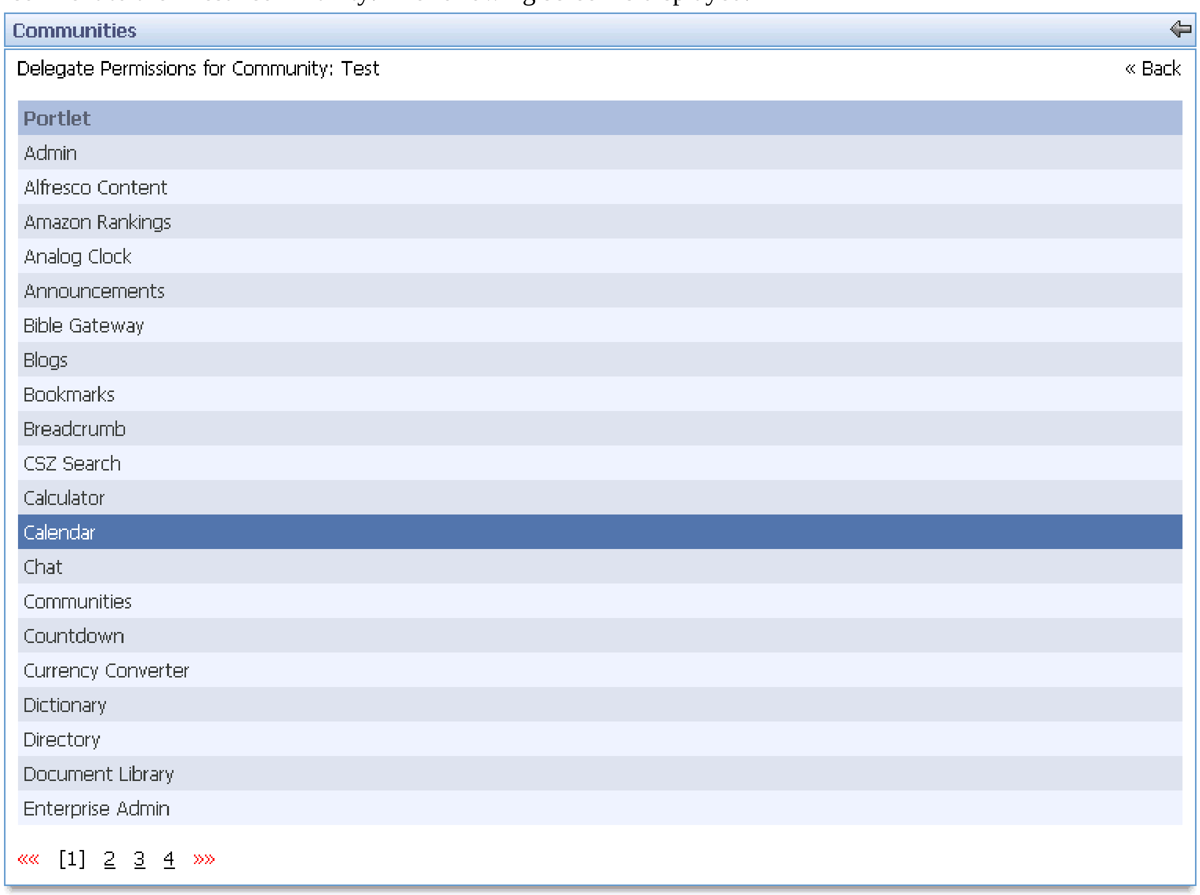


3. Now let's add some pages to the "Test" community. Click on the return arrow, click on the **Current** tab in the Communities portlet, and click on the **Pages** icon (). Click on the **Children** tab and add three public pages called "Test 1," "Test 2," and "Test 3." Using My Places, go to "Test", click on the **Test 1** tab, and add a Calendar portlet to the page using the "Add Content" link. Click on the **Test 2** tab and add a Calendar portlet. Finally, click on the Test 3 tab and add a Navigation portlet.

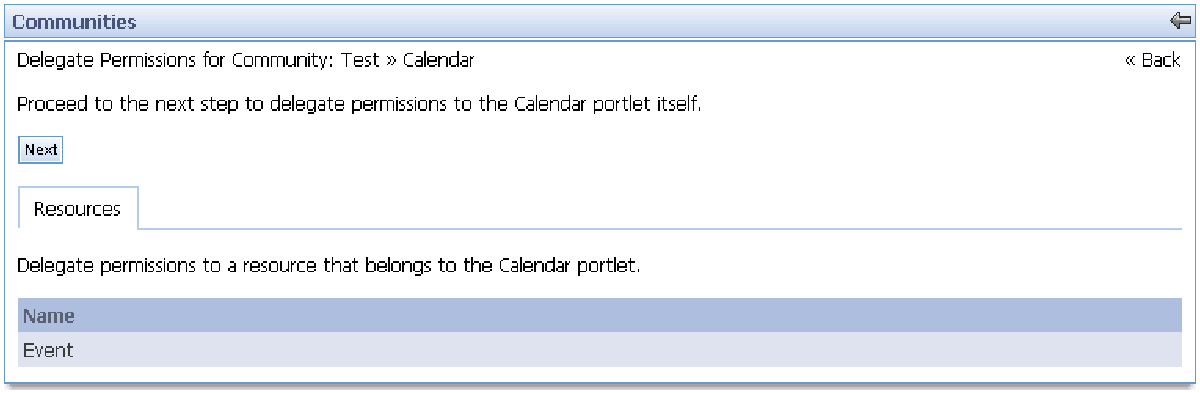
4. In step 2, we added the Test LAX 3 user as a member of the "Test" community. Log in as that user (by default, test.lax.3@liferay.com / password). Using My Places, navigate to the "Test" community. The following screen is displayed.



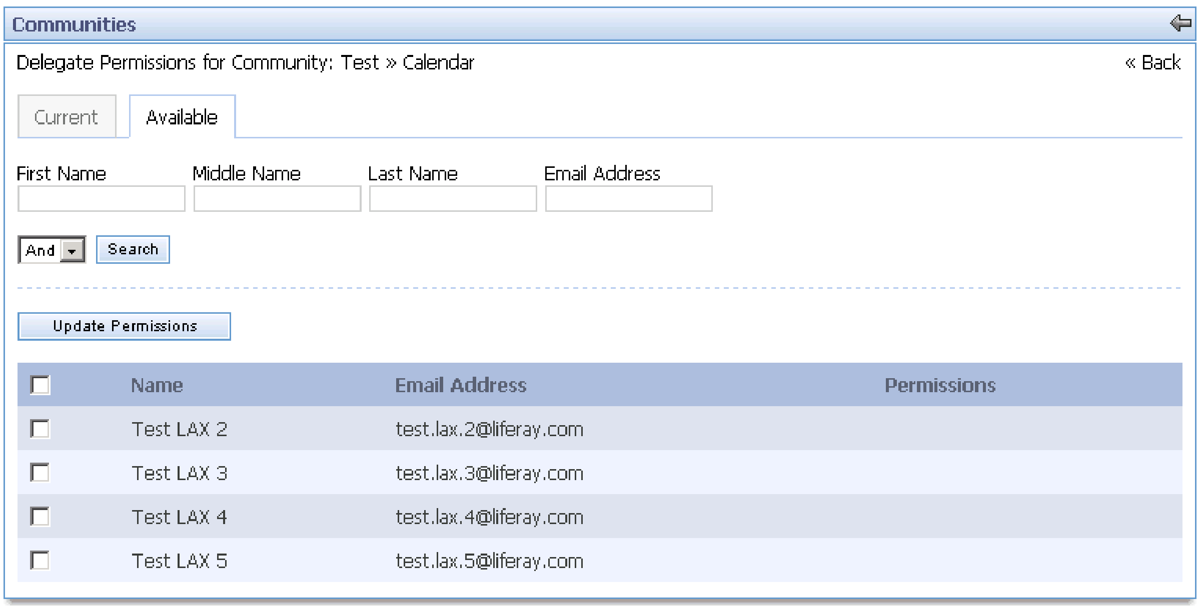
5. In the screen above, notice that Test LAX 3 has no way of adding a new event to the calendar. Go back to Test LAX 2, and go to the **Current** tab in the Communities portlet in the Support community. Click on the **Delegate** icon next to the "Test" community. The following screen is displayed.



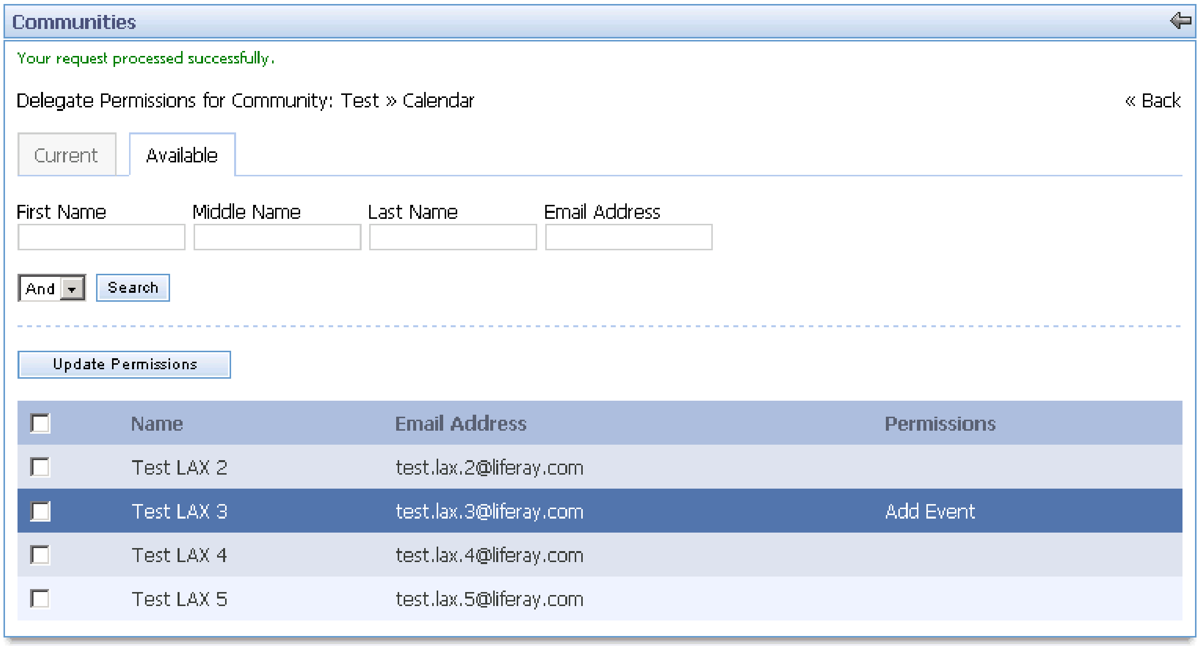
6. Click on the **Calendar** link in the list. The following screen is displayed.



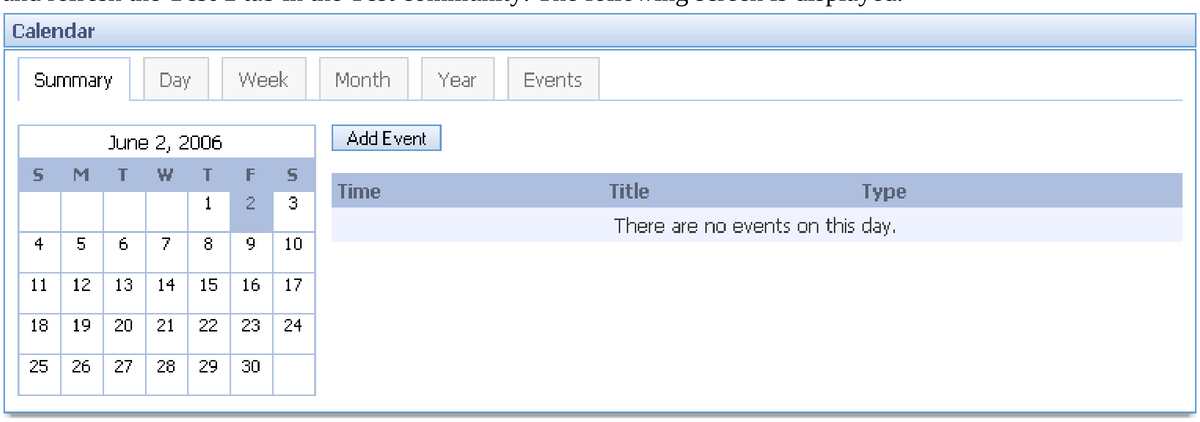
7. In the screen above, we have to decide whether to delegate portlet permissions or to delegate resource permissions. In this case, we want to allow users to be able to add events to the calendar. This is a portlet permission, so click on the **Next** button. On the new screen, click on the **Available** tab. The following screen is displayed.



8. In the screen above, notice that we can only delegate permissions to members of the community. Check the "Test LAX 3" user and click on the **Update Permissions** button. On the next screen, give Test LAX 3 the "Add Event" permission and click on the **Finished** button. The following screen is displayed.



9. In the screen above, notice that Test LAX 3 now has the "Add Event" permission. This means that Test LAX 3 can now add an event to *any* Calendar portlet in the "Test" community. To confirm this, go back to Test LAX 3 and refresh the **Test 1** tab in the Test community. The following screen is displayed.



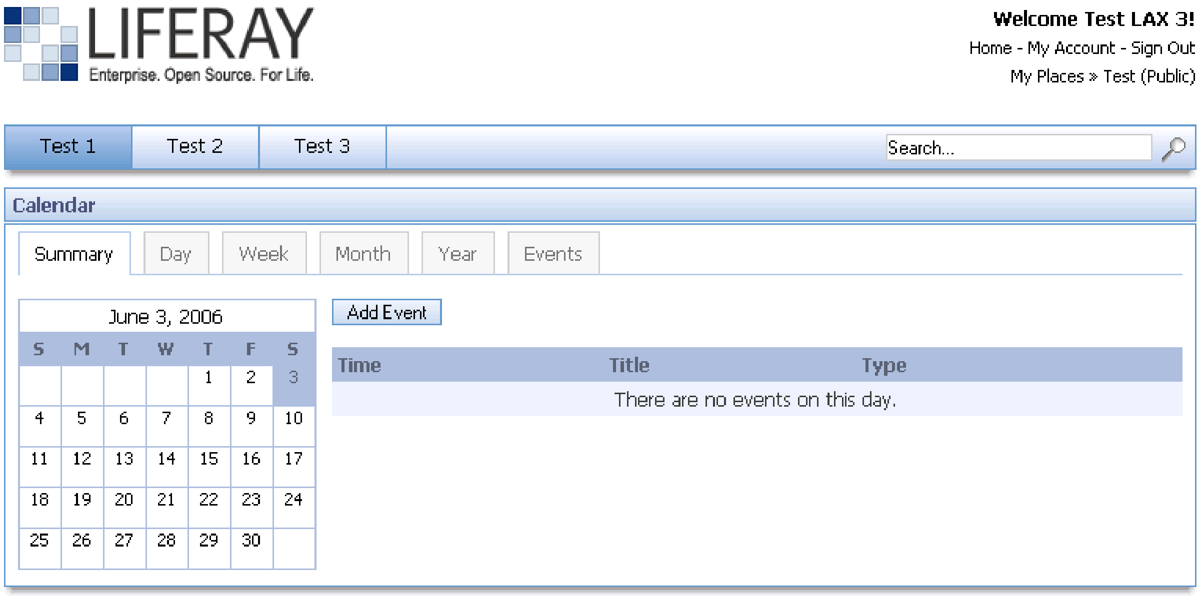
10. In the screen above, notice that Test LAX 3 now has the **Add Event** button available. Now click on the **Test 2** tab. Test LAX 3 also has permission to add events to this calendar. Alternatively, steps 7-9 could have been repeated using the "Event" resource to control permissions related to calendar events.

11. It should be noted that the preceding use case allowed the "Community Admin" to delegate permissions such that a user could add an event to **any** calendar in the "Test" community. Alternatively, the "Community Admin" could have delegated permissions such that a user could add an event to only an **individual** calendar in the "Test" community. Refer to section 3.5 for instructions on assigning individual portlet permissions.

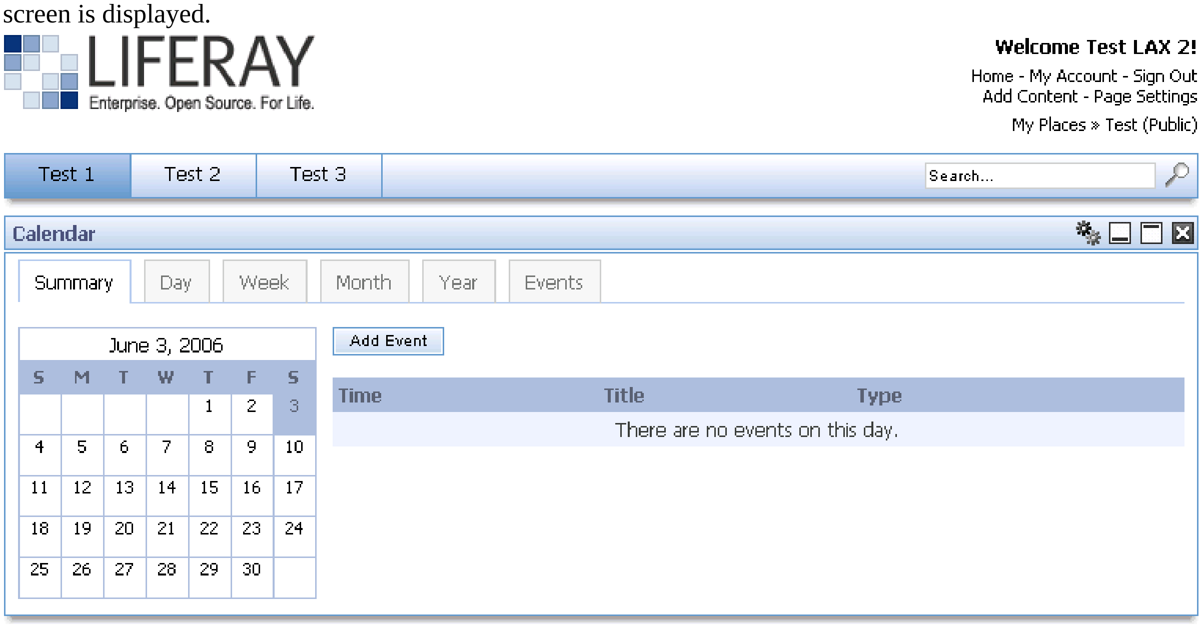
Page Permissions

Goal: To delegate permissions to users such that they will be able to manage pages within their communities.

1. Log into the portal as Test LAX 3 and navigate to the "Test" community. The following screen is displayed.

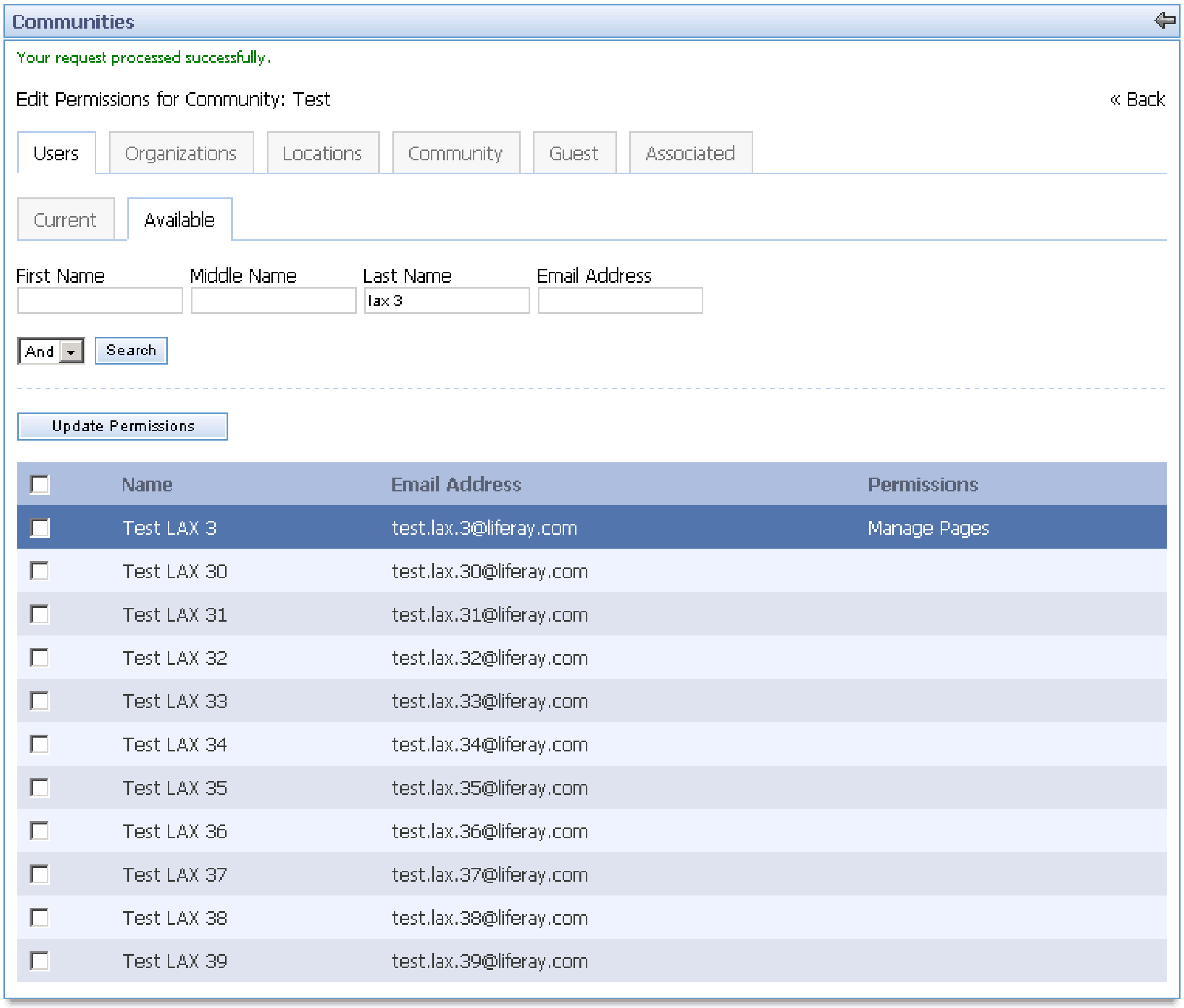


2. In another browser, log into the portal as Test LAX 2 and also navigate to the "Test" community. The following screen is displayed.

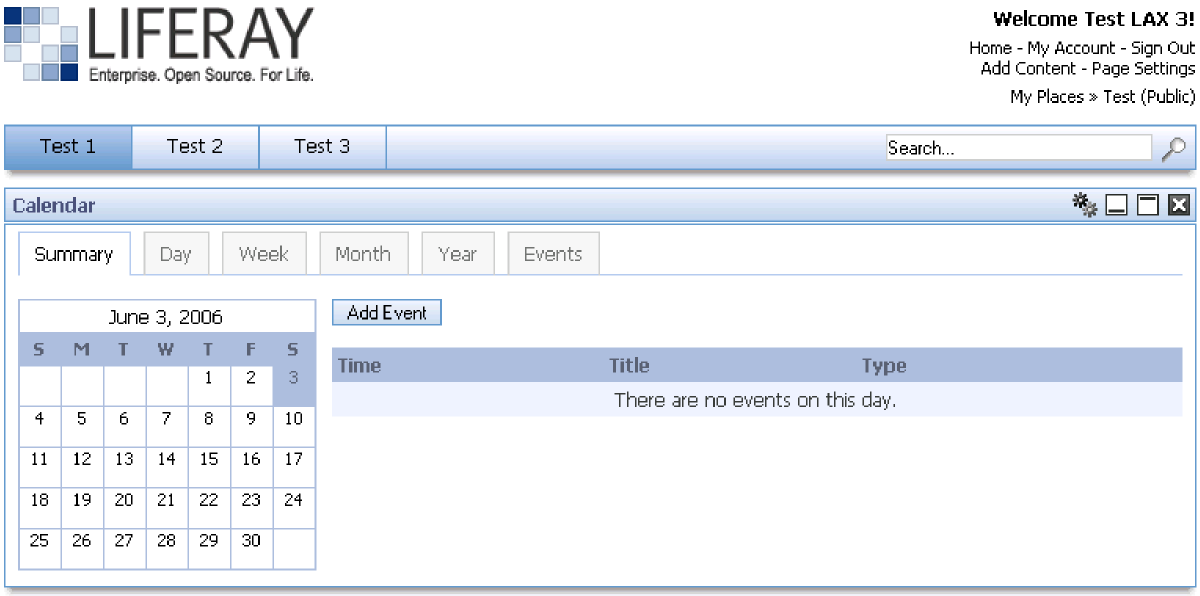


3. Compare the 2 screens. Notice that Test LAX 3 doesn't have the "Add Content" and "Page Settings" links in the upper right corner like Test LAX 2 does. In addition, Test LAX 3 doesn't have the portlet icons for Configuration, Minimize, Maximize, or Remove like Test LAX 2 does. Also, Test LAX 3 is not able to drag and drop the portlet like Test LAX 2 is.

   Now, as Test LAX 2, navigate to the "Support" community and click on the **Current** tab in the Communities portlet. Click on the **Permissions** icon next to the "Test" community. Under the **Users** -> **Available** tab, find the Test LAX 3 user, **Update Permissions**, and add the "Manage Pages" permission to this user. The resulting page should appear like the following.



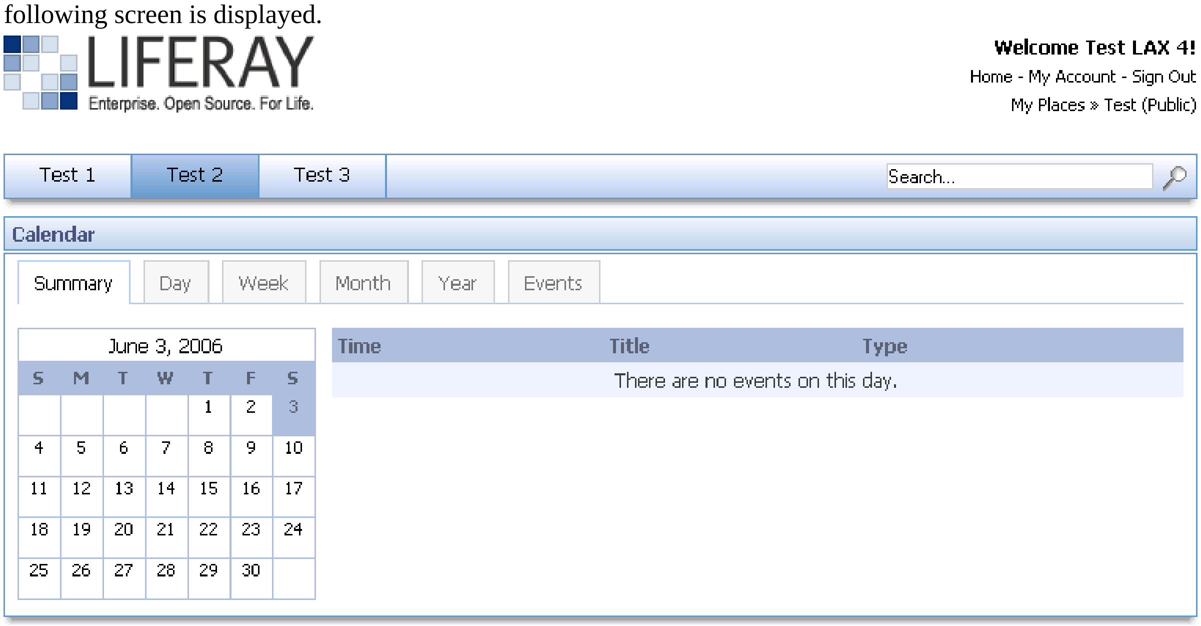
4. Go back to the Test LAX 3 user and refresh the **Test 1** tab in the "Test" community. The following screen is displayed.



5. In the screen above, notice that the Test LAX 3 user now has access to the "Add Content" and "Page Settings" links, and Test LAX 3 now also has all the portlet icons and is able to drag and drop portlets. This applies to all the pages within the "Test" community.

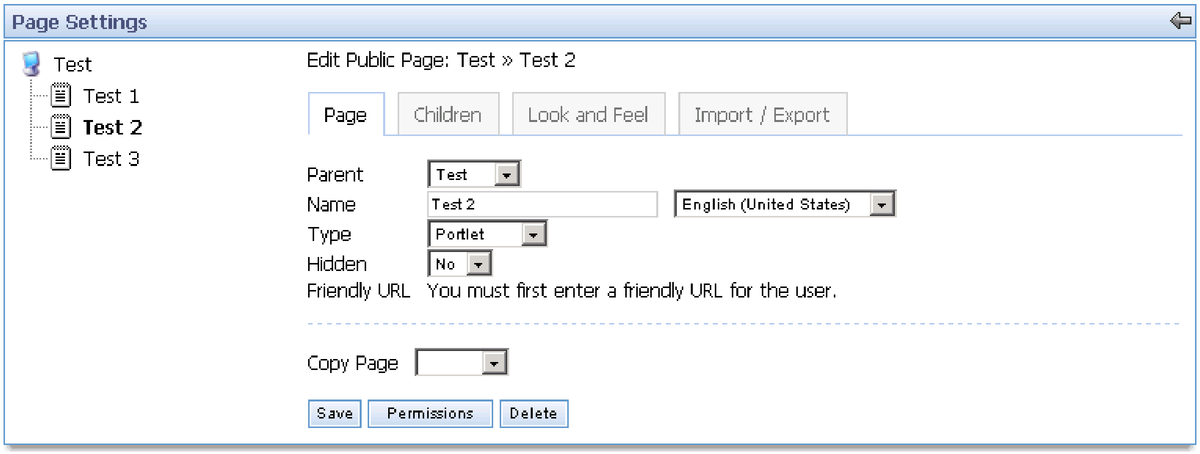
6. Alternatively, since Test LAX 2 was previously given the "Add Role" permission, Test LAX 2 could have created a role, assigned the role to Test LAX 3, clicked on the new role's **Delegate** icon, chosen the Communities portlet, chosen the Community resource, and given the "Manage Pages" permission at either Community or Enterprise scope. This would have achieved the same results as the previous steps in this use case.

7. Let's now assume that Test LAX 4 should be able to only add and manipulate portlets on the Test 2 page of the "Test" community. Log in as Test LAX 4, navigate to the "Test" community, and click on the **Test 2** tab. The following screen is displayed.

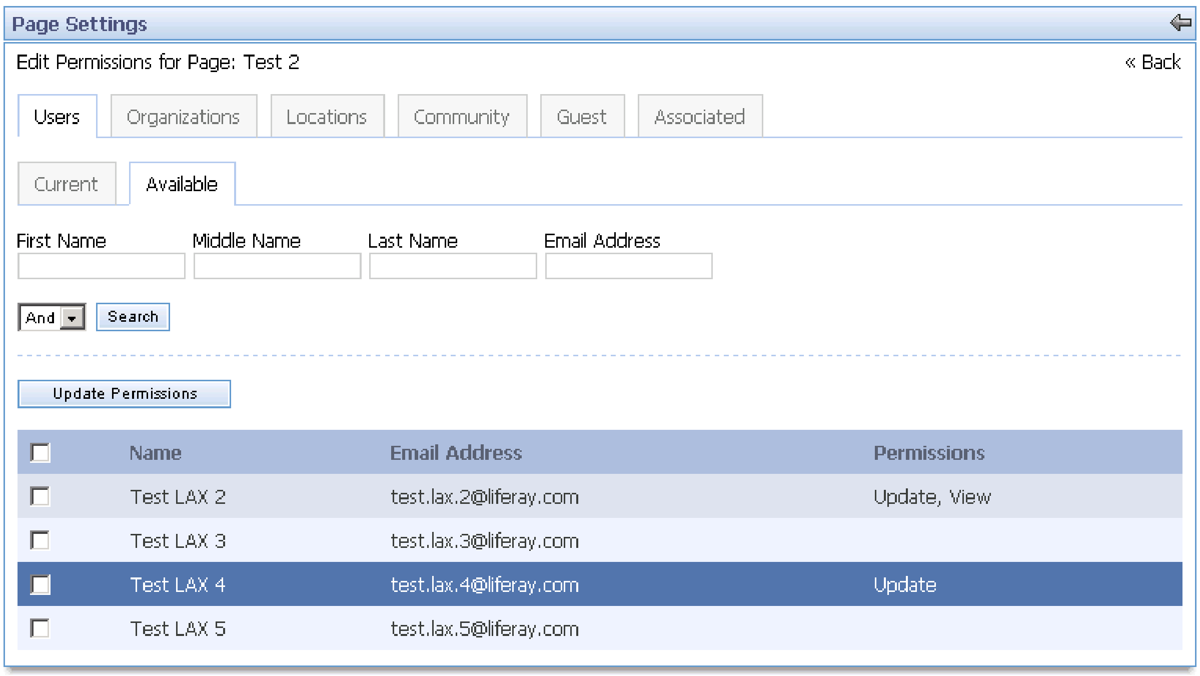


8. In the screen above, notice that Test LAX 4 doesn't have the "Add Content" link and doesn't have the Configuration, Minimize, Maximize, and Remove icons for the portlet. Test LAX 4 also can not drag and drop the portlet. Now, as Test LAX 2, go to the "Test" community, and click on the "Page Settings" link. The following

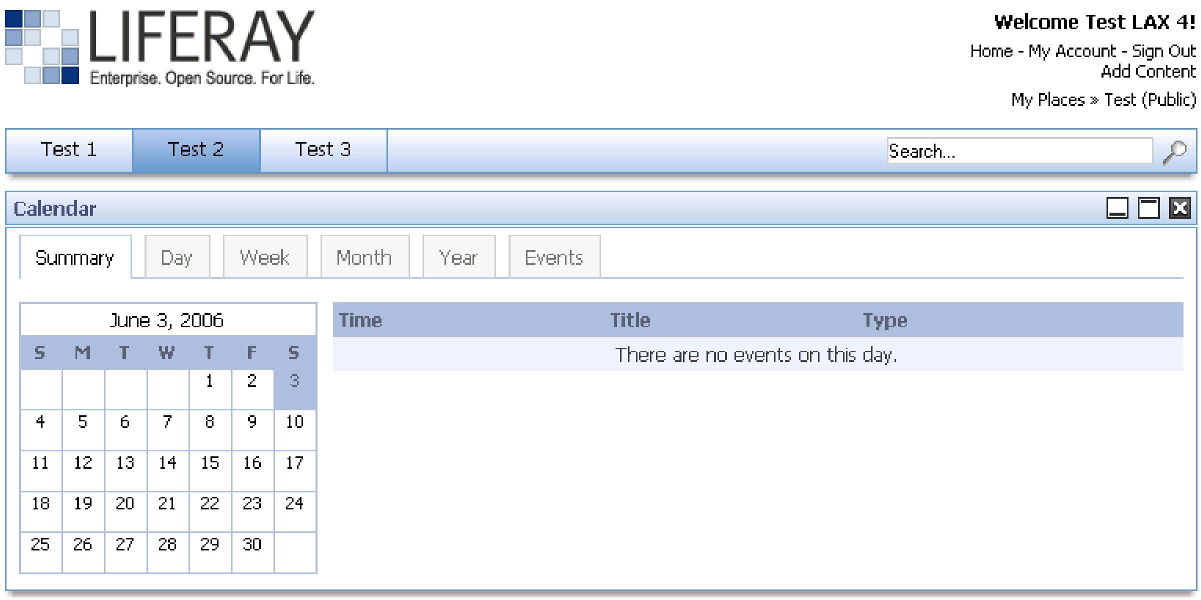
screen is displayed.



9. Click on the "Test 2" page in the tree structure on the left, then click on the **Permissions** button under the **Page** tab. Under the **User** -> **Available** tab, find Test LAX 4 and give that user "Update" permissions (by default, all users in the community are given "View" permissions -- click on the **Community** tab to see this). The resulting screen should appear as the following.



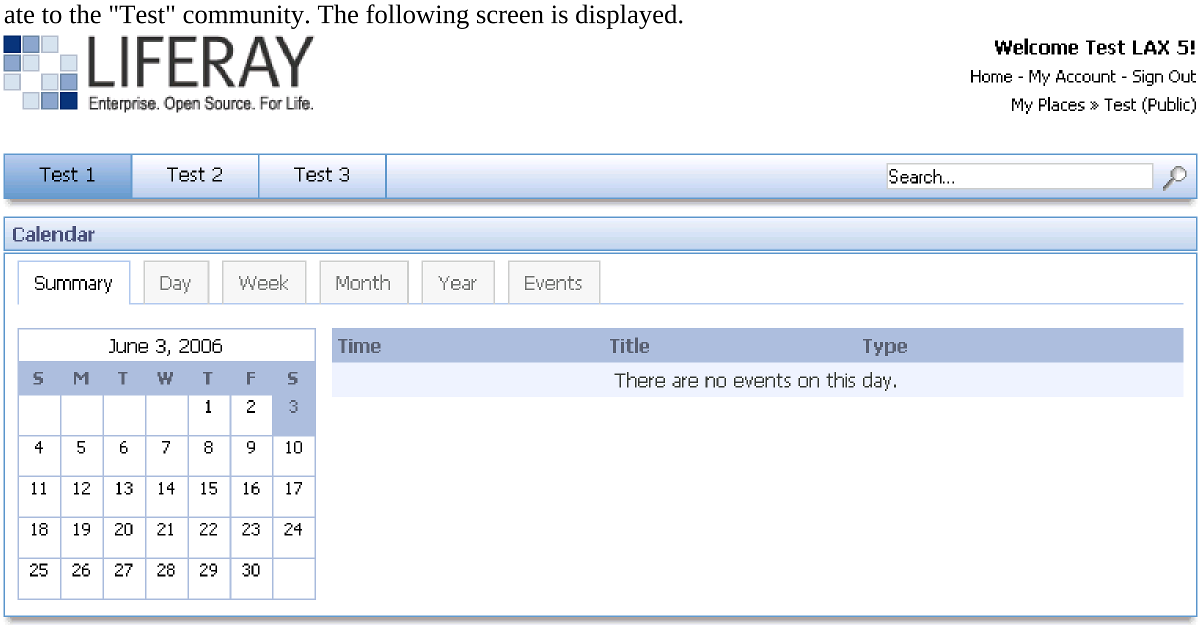
10. To see this permission in effect, go back to Test LAX 4 and refresh the **Test 2** tab in the "Test" community. The following screen is displayed.



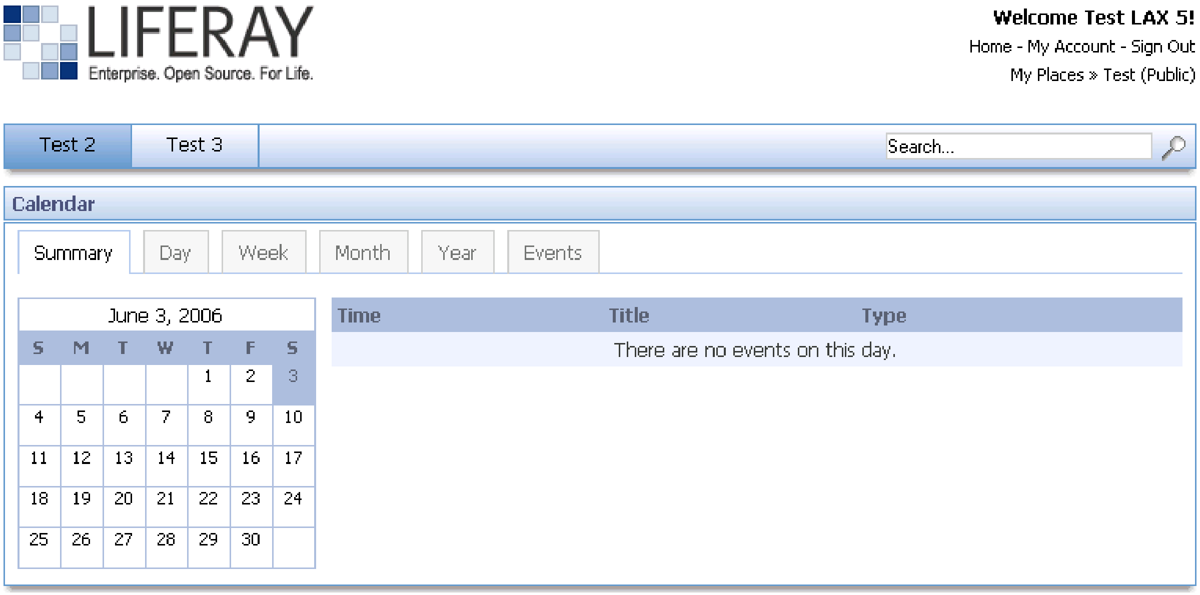
11. In the screen above, notice that Test LAX 4 now has the "Add Content" and the Minimize, Maximize, and Remove portlets icons. Test LAX 4 can now also drag and drop portlets. However, also notice that Test LAX 4 does *not* have the "Page Settings" link or the Configuration icon. The "Page Settings" link is only available to users who are Administrators, Community Admins, or have the "Manage Pages" permission. The Configuration icon is only available to users who are Administrators, Community Admins, or have the "Configuration" portlet permission. If Test LAX 4 were to go to the **Test 1** or **Test 3** tab, no "Add Content" link or portlet icons would be available.

12. Alternatively, since Test LAX 2 was previously given the "Add Role" permission, Test LAX 2 could have created a role, assigned the role to Test LAX 4, clicked on the new role's **Delegate** icon, chosen the Communities portlet, chosen the Page resource, and given the "Update" permission at either Community or Enterprise scope. This would have achieved the same results as the previous steps in this use case except that it would have applied to *every* page and not just the **Test 2** tab.

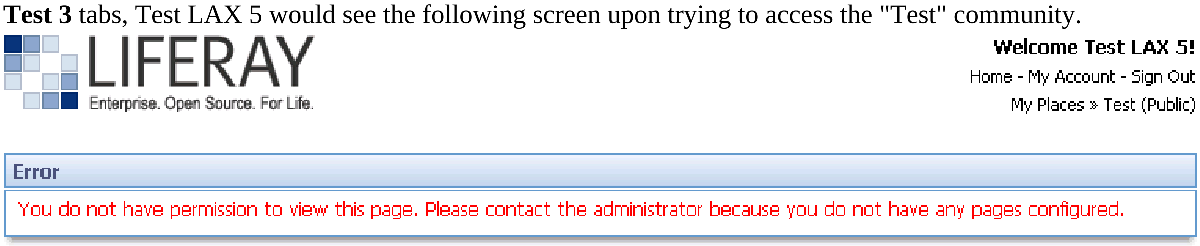
13. Let's now assume that Test LAX 5 should *not* be able to view the **Test 1** tab. Log in as Test LAX 5 and navigate to the "Test" community. The following screen is displayed.



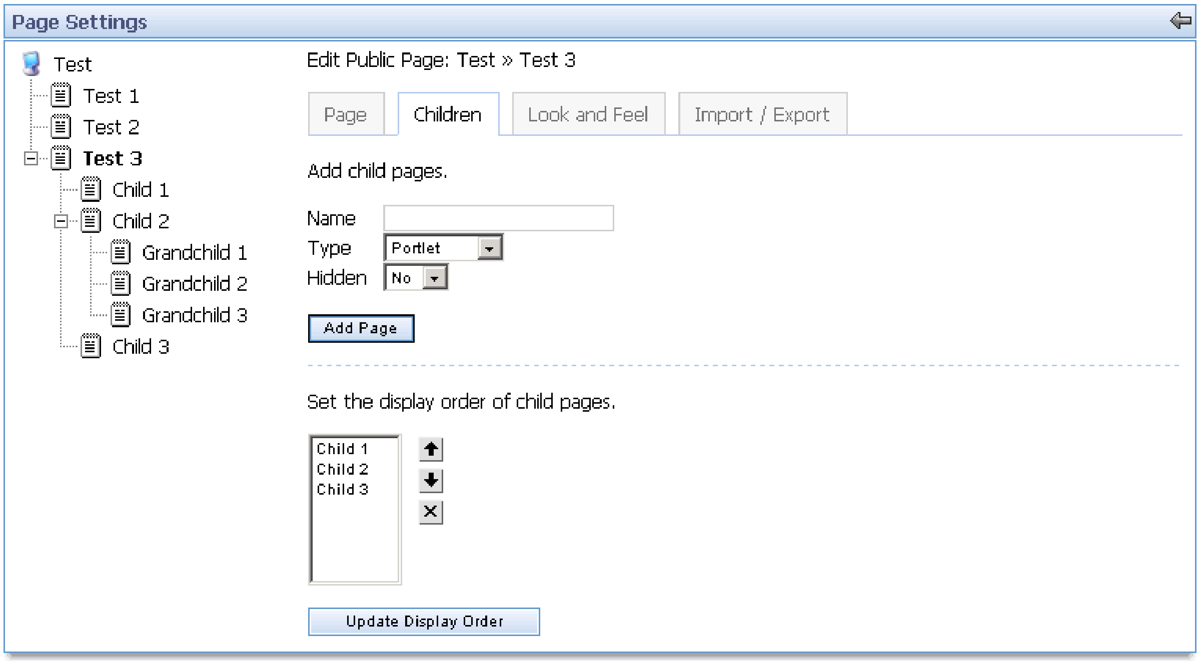
14. In the screen above, notice that Test LAX 5 has access to all 3 tabs within this community. Now, go back to Test LAX 2, navigate to the "Test" community, click on the "Page Settings" link, and "Test 1" should already be selected in the tree structure on the left. Under the **Page** tab, click on the **Permissions** button. Click on the **Community** tab and remove the "View" permission. Now, no one in the community (except for the admins) can view the **Test 1** tab. To confirm this, go back to Test LAX 5 and refresh the "Test" community. The following screen is displayed.



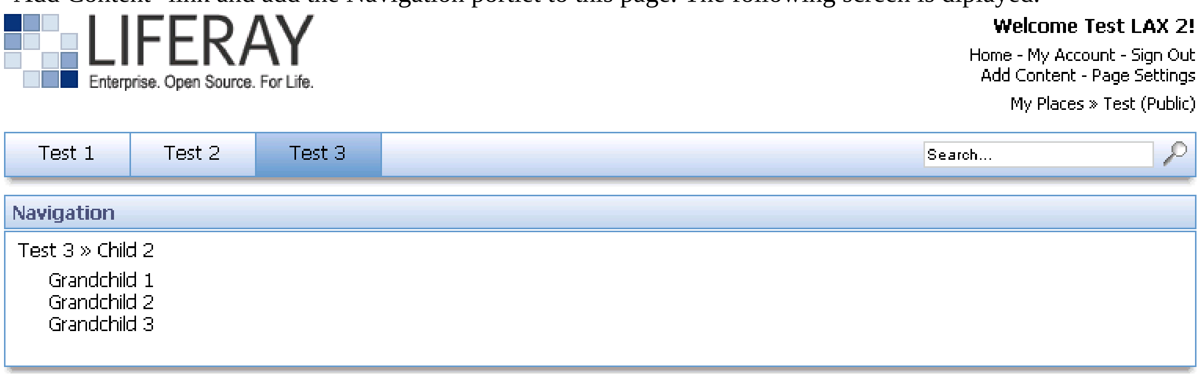
15. In the screen above, notice that the **Test 1** tab no longer appears. If step 14 were repeated for the **Test 2** and **Test 3** tabs, Test LAX 5 would see the following screen upon trying to access the "Test" community.



16. Let's now assume that the Test 3 tab has several subpages, and the "Community Admin" (in our case, Test LAX 2) wants to show and hide certain subpages for Test LAX 5. Go back to Test LAX 2, go to the "Test" community, click on the "Page Settings" link, and create subpages for **Test 3** according to the screen below.

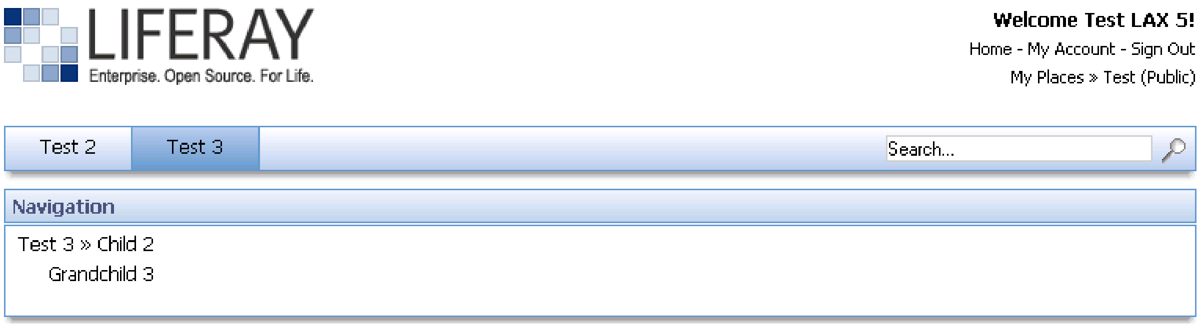


17. Also as Test LAX 2, go to the **Test 3** tab, click on the **Child 2** link in the Navigation portlet, then click the "Add Content" link and add the Navigation portlet to this page. The following screen is diplayed.



18. In the screen above, notice that the subpages created in step 16 all appear here. As mentioned earlier, by default, newly created pages are viewable by all members of the community. To confirm this, go back to Test LAX 5 and refresh the **Test 3** tab in the "Test" community. The Navigation portlet displays the "Test 3" link and its 3 children links. Click on "Child 2". Now the Navigation portlet appears exactly like the screen above.

19. Now we are going to hide the "Grandchild 1" and "Grandchild 2" subpages. Go back to Test LAX 2 and click on the "Page Settings" link. Using the left-hand tree structure, navigate to "Grandchild 1" and click on it. Under the **Page** tab, click on the **Permissions** button. On the next screen, click on the **Community** tab and remove the "View" permission. Repeat this step for the "Grandchild 2" subpage. Now go back to Test LAX 5 and refresh the **Child 2** subpage in the "Test" community. The following screen is displayed.



20. In the screen above, notice that the "Grandchild 1" and "Grandchild 2" links no longer appear.

Portlet Permissions

Goal: To delegate permissions to users such that they will be able to manage portlets within pages.

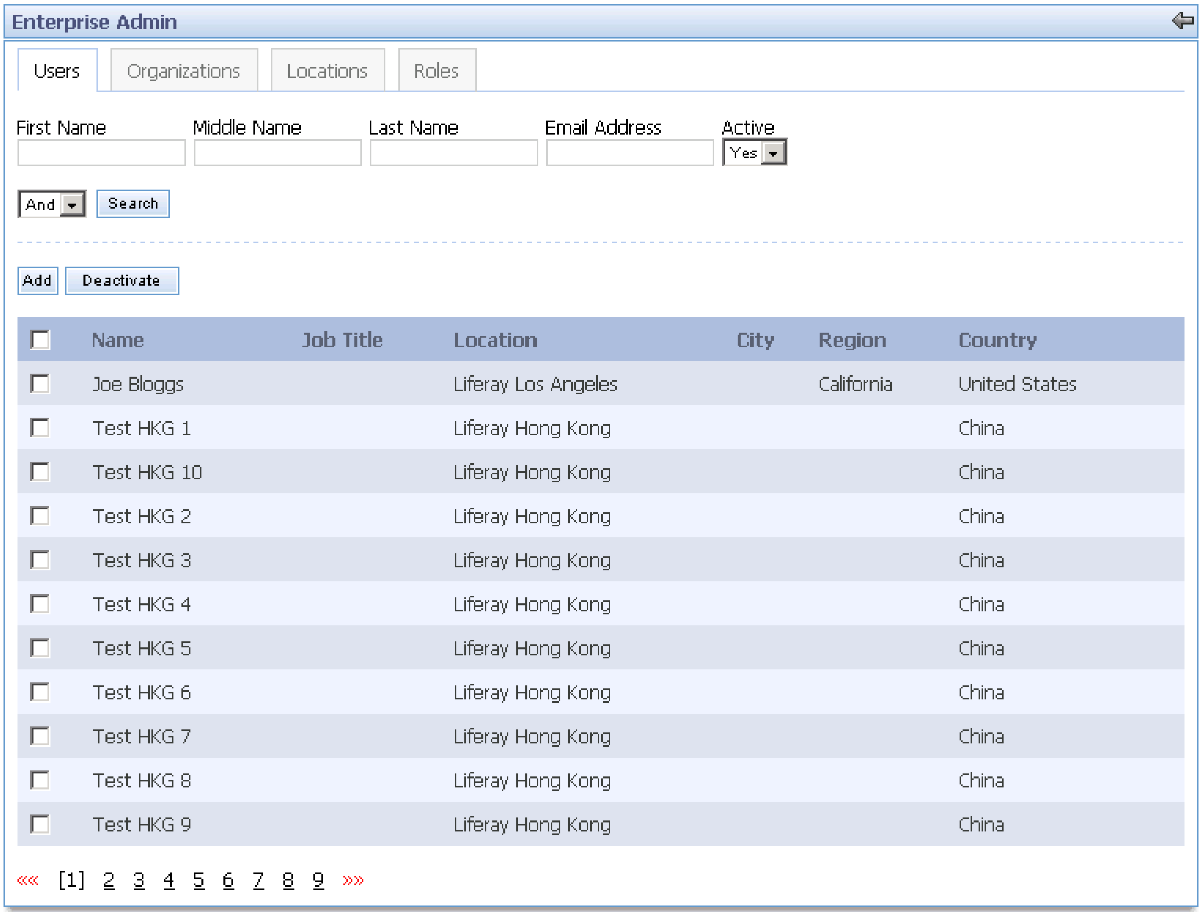
1. Section 3.5 explained how to assign individual portlet permissions for a portlet. The two most common portlet permissions are **Configuration** and **View**. If a user is given the **Configuration** permission, the user has permission to update the portlet's Setup, Look and Feel, and Permissions sections. If a user is given the **View** permission, the user has permission to view the contents of the portlet. Both permissions can be granted at the individual portlet level via the **Configuration** icon -> **Permissions** tab, or they can be granted at Enterprise or Community scope via a role.

2. In addition, if a user is given the **Manage Pages** permission for a community, that user has permission to update any portlets' Setup, Look and Feel, and Permissions sections within the community. In other words, it's as if the user has the **Configuration** permission for every portlet within the community.

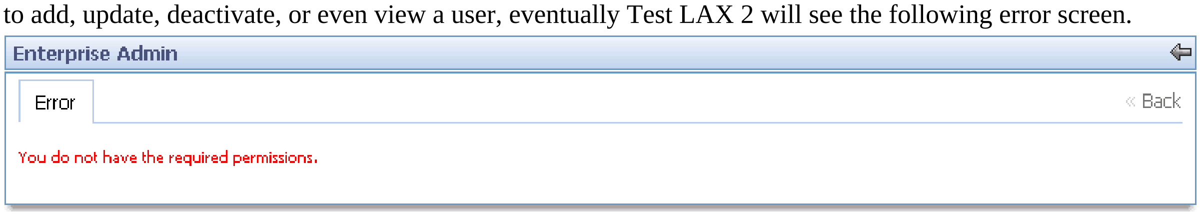
Enterprise Admin Permissions

Goal: To delegate permissions to users such that they will be able to manage organizations, locations, users, and user groups.

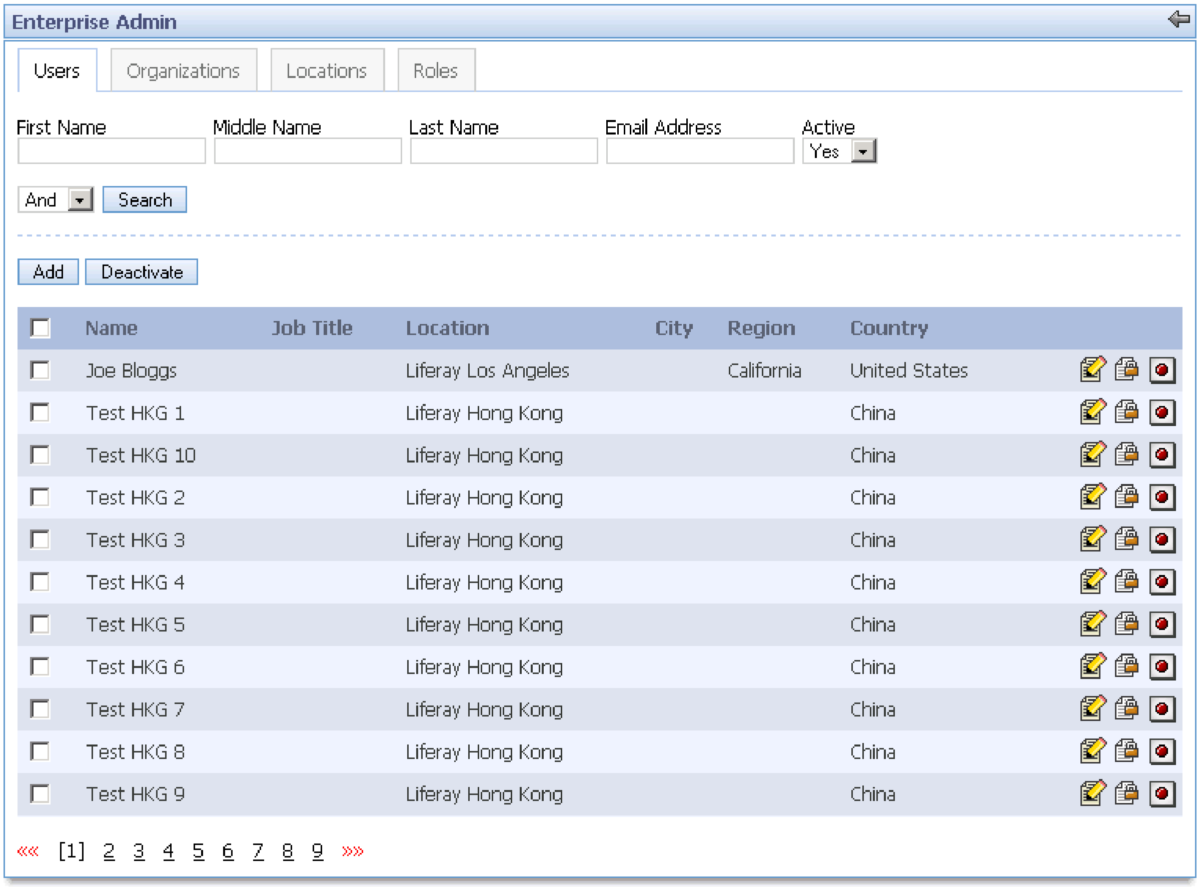
1. Log into the portal as Test LAX 2. Go to the "Support" community, and click on the **Users** tab in the Enterprise Admin portlet. The following screen is displayed.



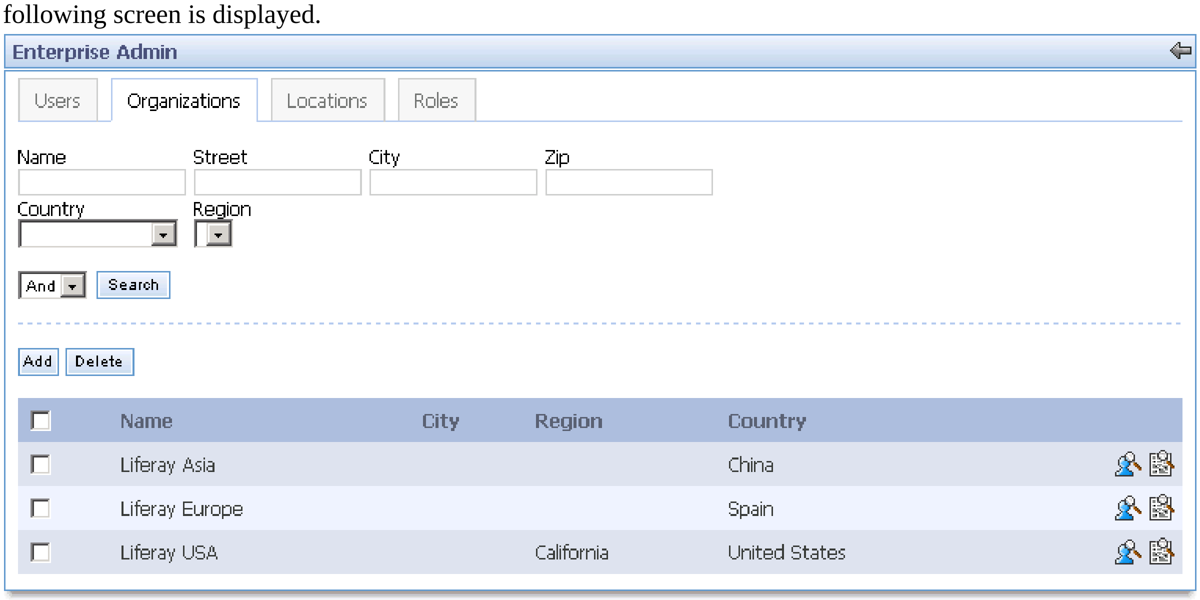
2. In the screen above, notice that Test LAX 2 has no permissions to do anything to the users. If Test LAX 2 tries to add, update, deactivate, or even view a user, eventually Test LAX 2 will see the following error screen.



3. Now, log into the portal as an Administrator, navigate to the Enterprise Admin portlet, and click on the Users tab. The following screen is displayed.

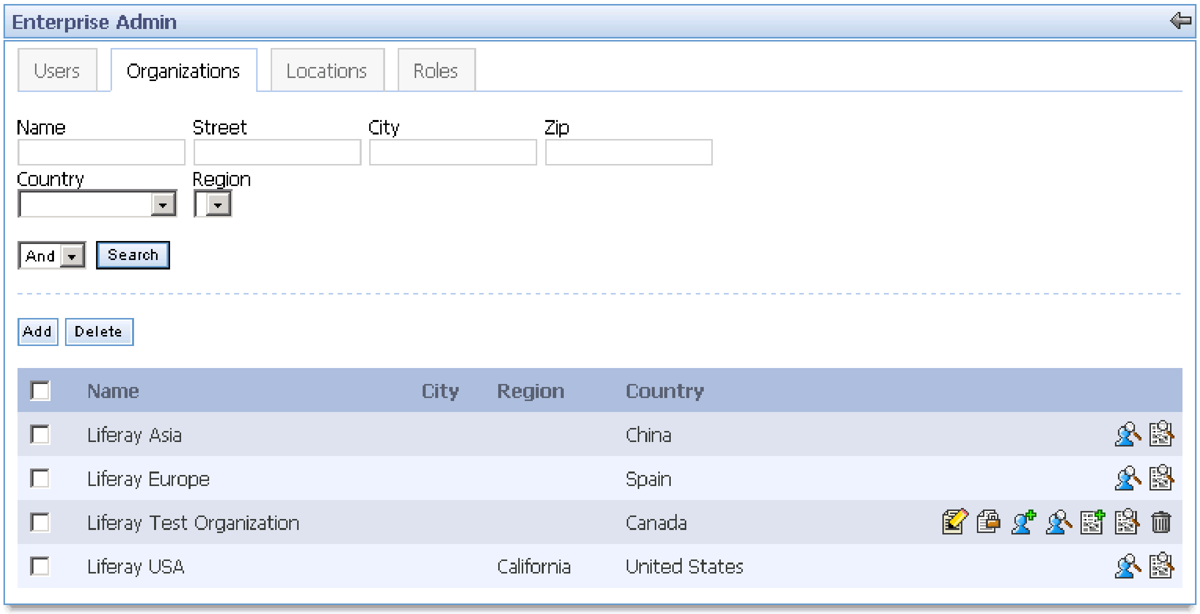


4. In the screen above, notice that the Administrator has all the available icons to update, permission, and deactivate the users. Go back to Test LAX 2 and click on the Organizations tab in the Enterprise Admin portlet. The following screen is displayed.

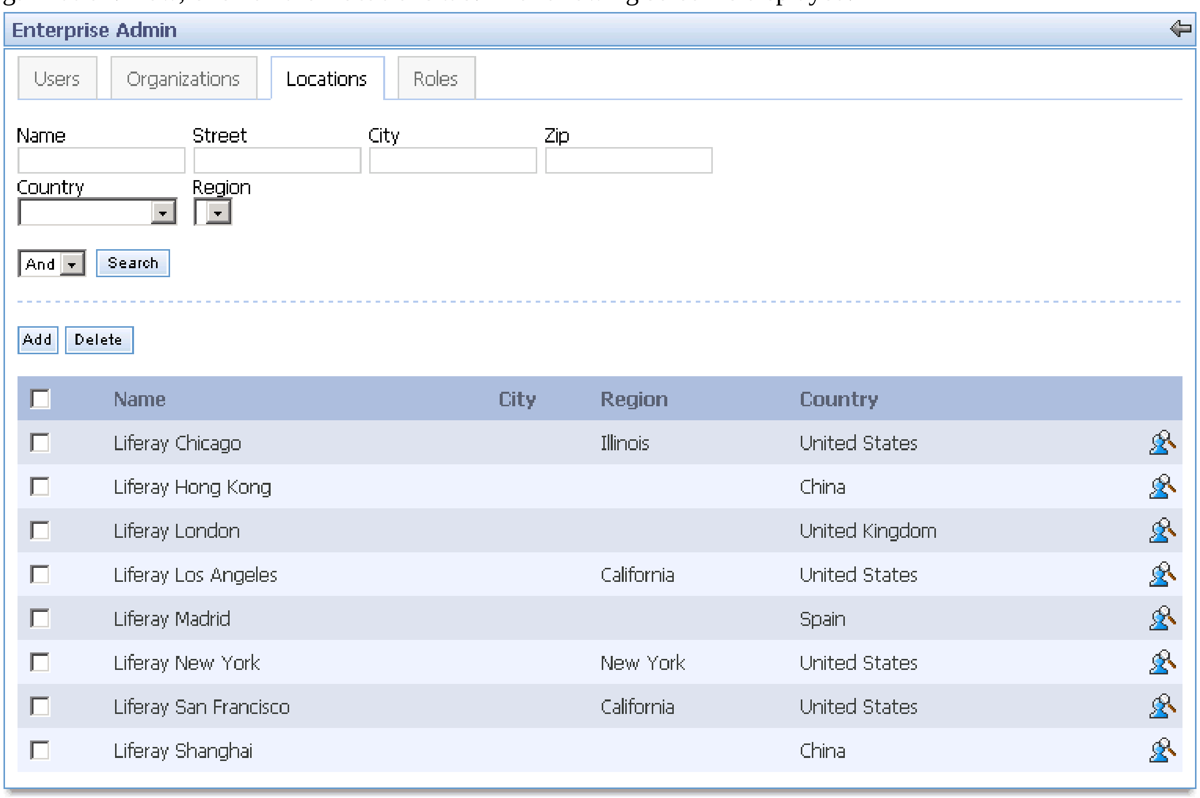


5. In the screen above, notice that Test LAX 2 has permissions to View Users and View Locations associated with the organizations. Also, because of the use case in section 3.9.1, Test LAX 2 has permission to add an organization. However, Test LAX 2 doesn't have permission to do anything else. Go ahead and click on the **Add** but-

ton, and on the next screen, create an organization called "Liferay Test Organization." After you click the **Save** button, you can optionally add other organization details like email addresses, website, phone numbers, etc. When you're done, click on the **Organizations** tab again. The following screen is displayed.

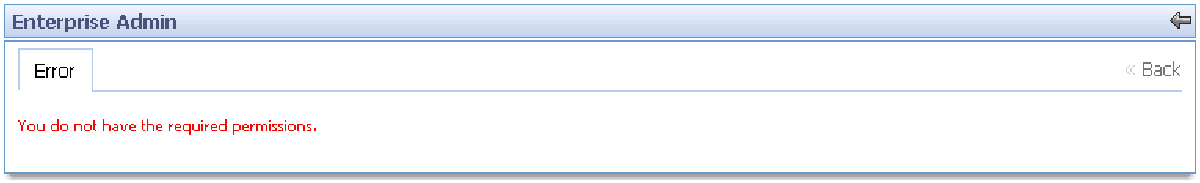


6. In the screen above, notice that Test LAX 2 has all available permissions on the "Liferay Test Organization" organization. Now, click on the **Locations** tab. The following screen is displayed.

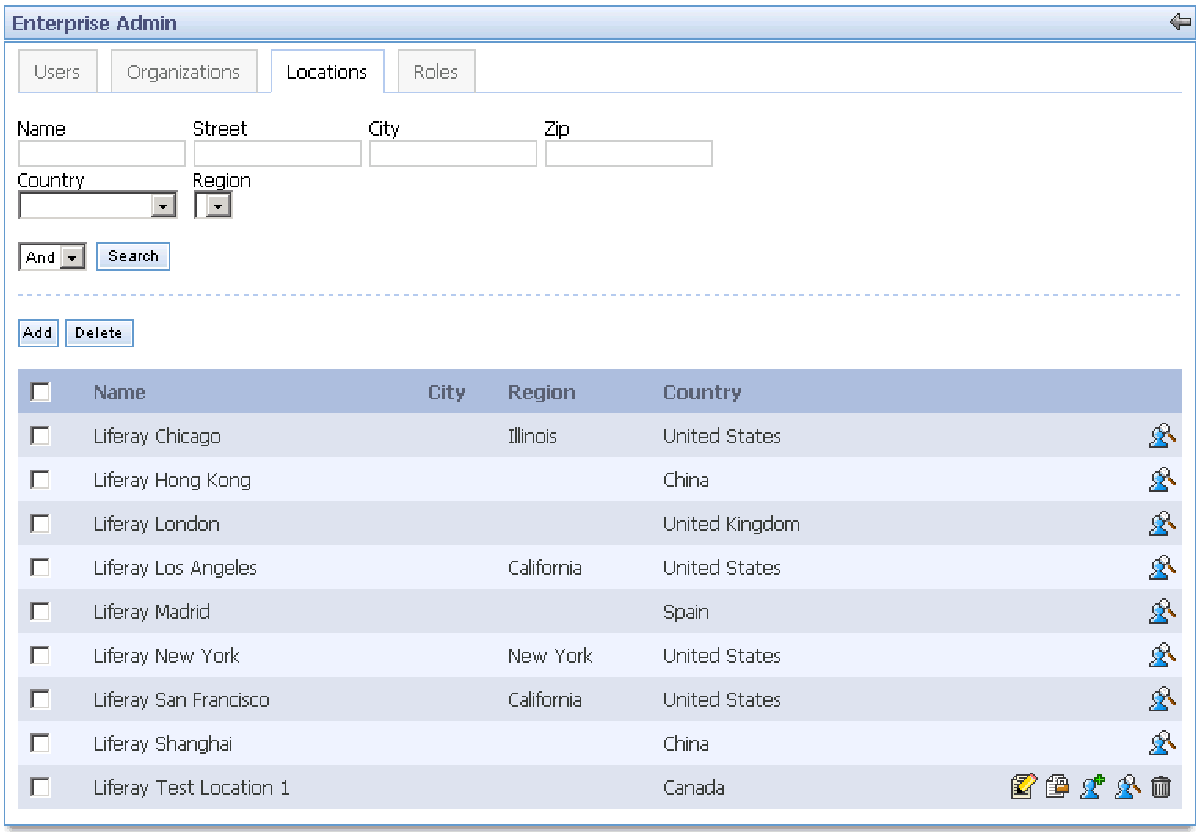


7. In the screen above, notice that Test LAX 2 only has permission to View Users for the locations. Test LAX 2 doesn't have permissions to do anything else *except* add a location to the "Liferay Test Organization" organization. To confirm this, click on the **Add** button, use "Liferay Test Location 1" for the name field, select "Liferay

USA" for the organization, fill out the other fields, and click the **Save** button. The following screen is displayed.

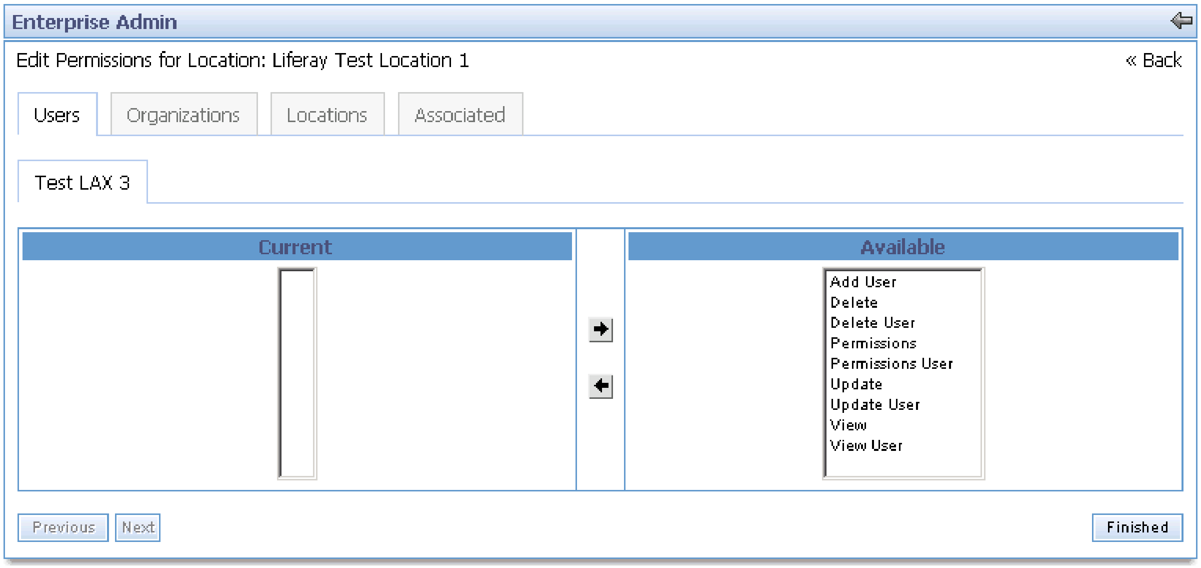


8. The error screen is displayed because Test LAX 2 doesn't have permission to add locations to the "Liferay USA" organization. Repeat step 7, only this time, select the "Liferay Test Organization" organization. After you click the **Save** button, again you have the option to provide additional location details. When finished, click on the Locations tab. The following screen is displayed.



9. In the screen above, notice that Test LAX 2 has permission to do anything to the "Liferay Test Location 1" location. Repeat step 8 to create 2 more locations under the "Liferay Test Organization" called "Liferay Test Location 2" and "Liferay Test Location 3".

10. Let's now assume that Test LAX 3 should be the "Location User Admin" for the "Liferay Test Location 1" location. This means Test LAX 3 should be able to manage any user in this location. As Test LAX 2, click on the **Permissions** icon next to the "Liferay Test Location 1" location. Under the **Users** -> **Available** tab, find and check Test LAX 3, and click the **Update Permissions** button. The following screen is displayed.



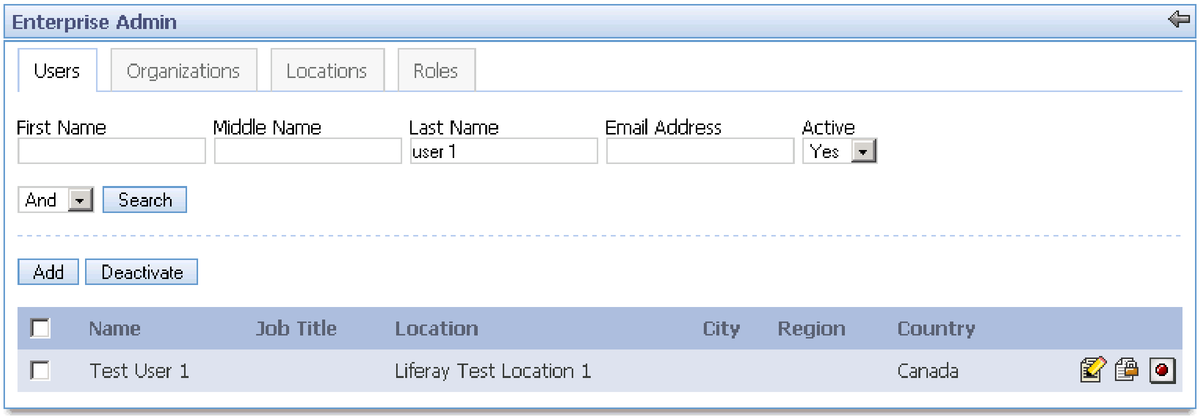
11. In the screen above, notice the list of available permissions. The following list defines each in the context of a location:

    - **Add User** - You can add a user to this location
    - **Delete** - You can delete this location
    - **Delete User** - You can delete any user in this location
    - **Permissions** - You can control the permissions for this location
    - **Permissions User** - You can control the permissions for any user in this location
    - **Update** - You can update this location
    - **Update User** - You can update any user in this location
    - **View** - You can view the details of this location
    - **View User** - You can view the details for any user in this location

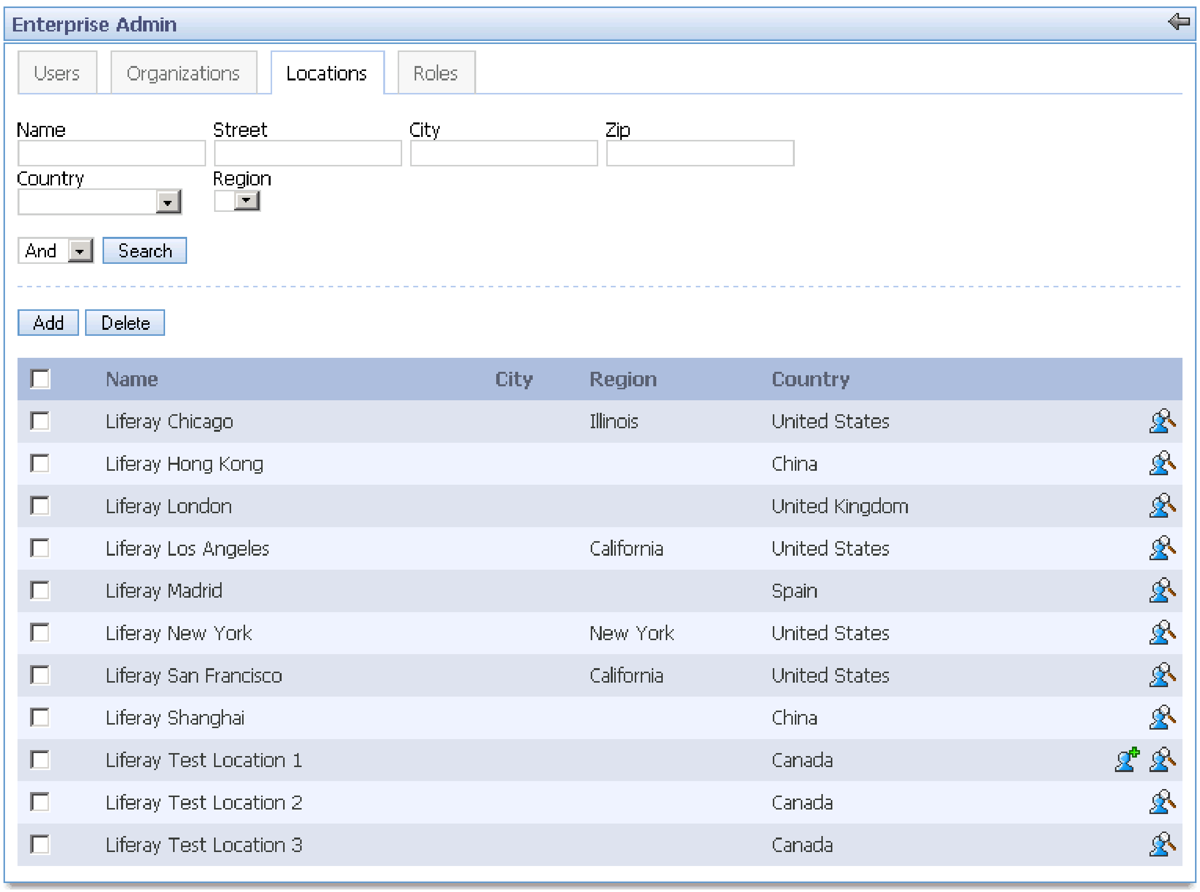
12. Give Test LAX 3 all of the available user permissions (i.e., Add User, Delete User, Permissions User, Update User, and View User. Do not add Delete, Permissions, Update, and View) and click the **Finished** button. Now, log into the portal as Test LAX 3, navigate to the "Support" community, and click on the **Users** tab in the Enterprise Admin portlet. Click on the **Add** button. Create a user with the following attributes:

    - First Name = Test
    - Last Name = User 1
    - Email Address = test.user.1@liferay.com
    - Organization = Liferay Test Organization
    - Location = Liferay Test Location 1

    After clicking the **Save** button, click on the **Users** tab and search for Test User 1. The following screen is displayed.



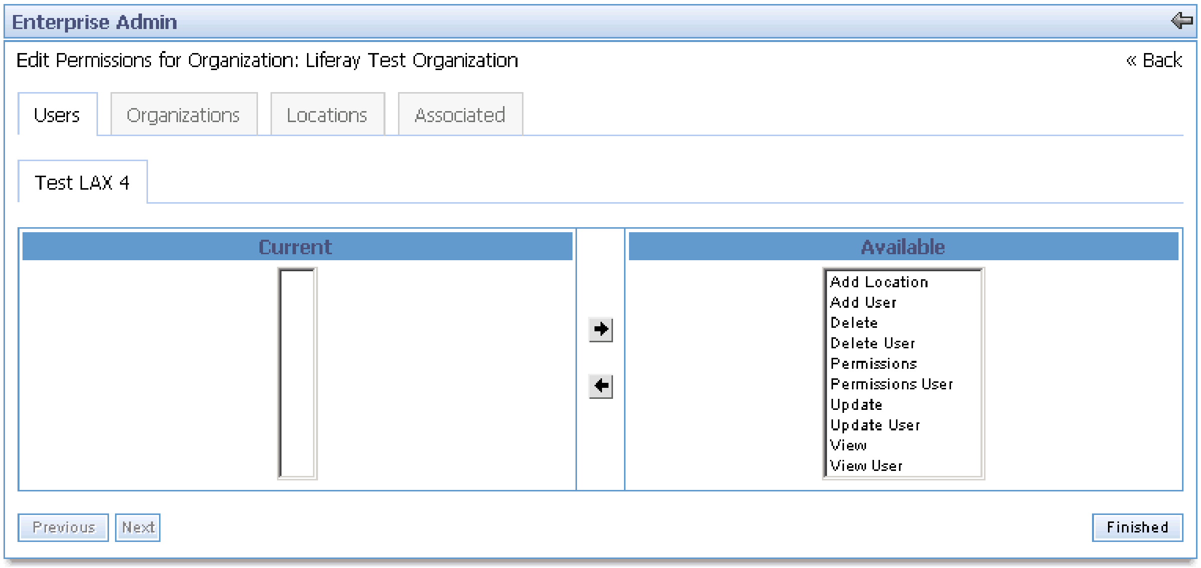
13. In the screen above, notice that Test LAX 3 has all the permissions for the "Test User 1" user. Now click on the **Locations** tab. The following screen is displayed.



14. In the screen above, notice that the Test LAX 3 user has permission to add a user to the "Liferay Test Location 1" location.

15. Now let's assume Test LAX 4 should be the "Organization Admin" for the "Liferay Test Organization" organization. This means Test LAX 4 should be able to manage all users within the organization (which means the ability to manage any user in any location in the organization) and manage the organization itself (which means the ability to update/delete the organization as well as add new locations to the organization). Go back to Test LAX 2 and click on the **Organizations** tab in the Enterprise Admin portlet. Click on Liferay Test Organization's **Permissions** icon. Under the **Users** -> **Available** tab, find and check the Test LAX 4 user, and click on

the **Update Permissions** button. The following screen is displayed.



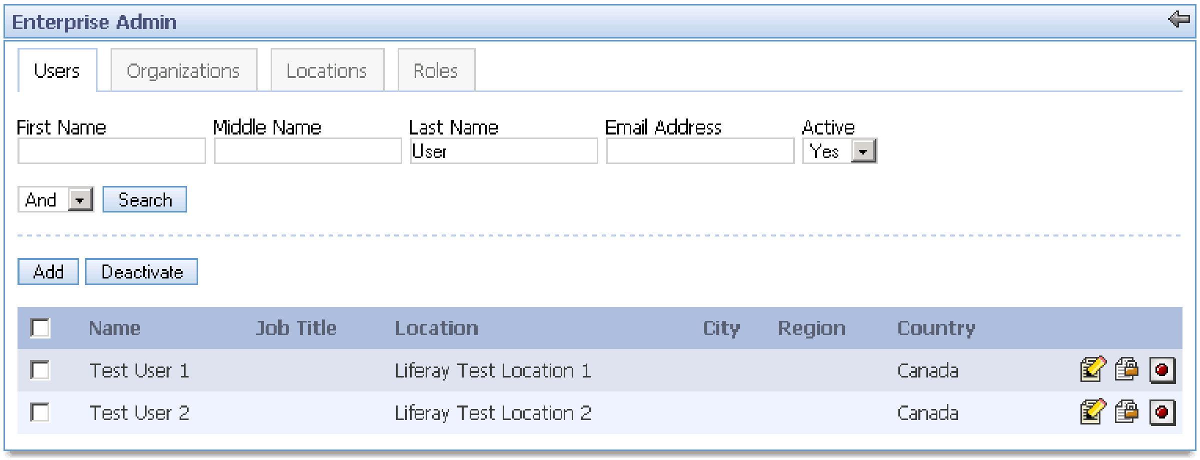
16. In the screen above, notice the list of available permissions. The following list defines each in the context of an organization:

- **Add Location** - You can add a location to this organization
- **Add User** - You can add a user to any location in this organization
- **Delete** - You can delete this organization
- **Delete User** - You can delete any user in any location in this organization
- **Permissions** - You can control the permissions for this organization
- **Permissions User** - You can control the permissions for any user in any location in this organization
- **Update** - You can update this organization
- **Update User** - You can update any user in any location in this organization
- **View** - You can view the details of this organization
- **View User** - You can view the details for any user in any location in this organization

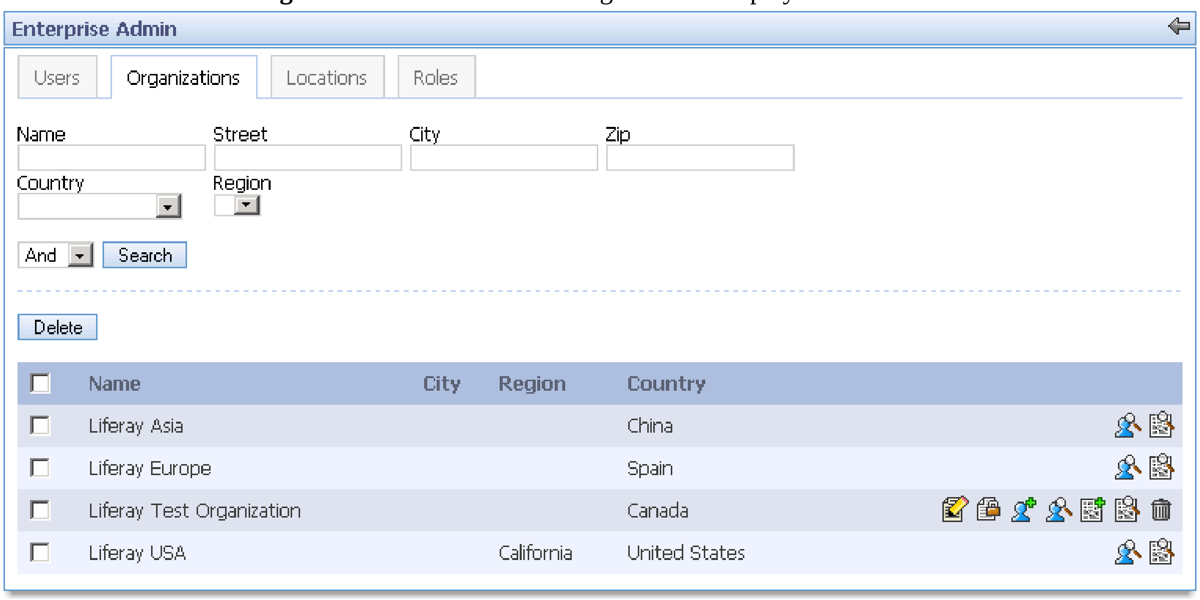
Give Test LAX 4 all of the available permissions and click the **Finished** button. Now, log into the portal as Test LAX 4, navigate to the "Support" community, and click on the **Users** tab in the Enterprise Admin portlet. Click on the **Add** button. Create a user with the following attributes:

- First Name = Test
- Last Name = User 2
- Email Address = test.user.2@liferay.com
- Organization = Liferay Test Organization
- Location = Liferay Test Location 2

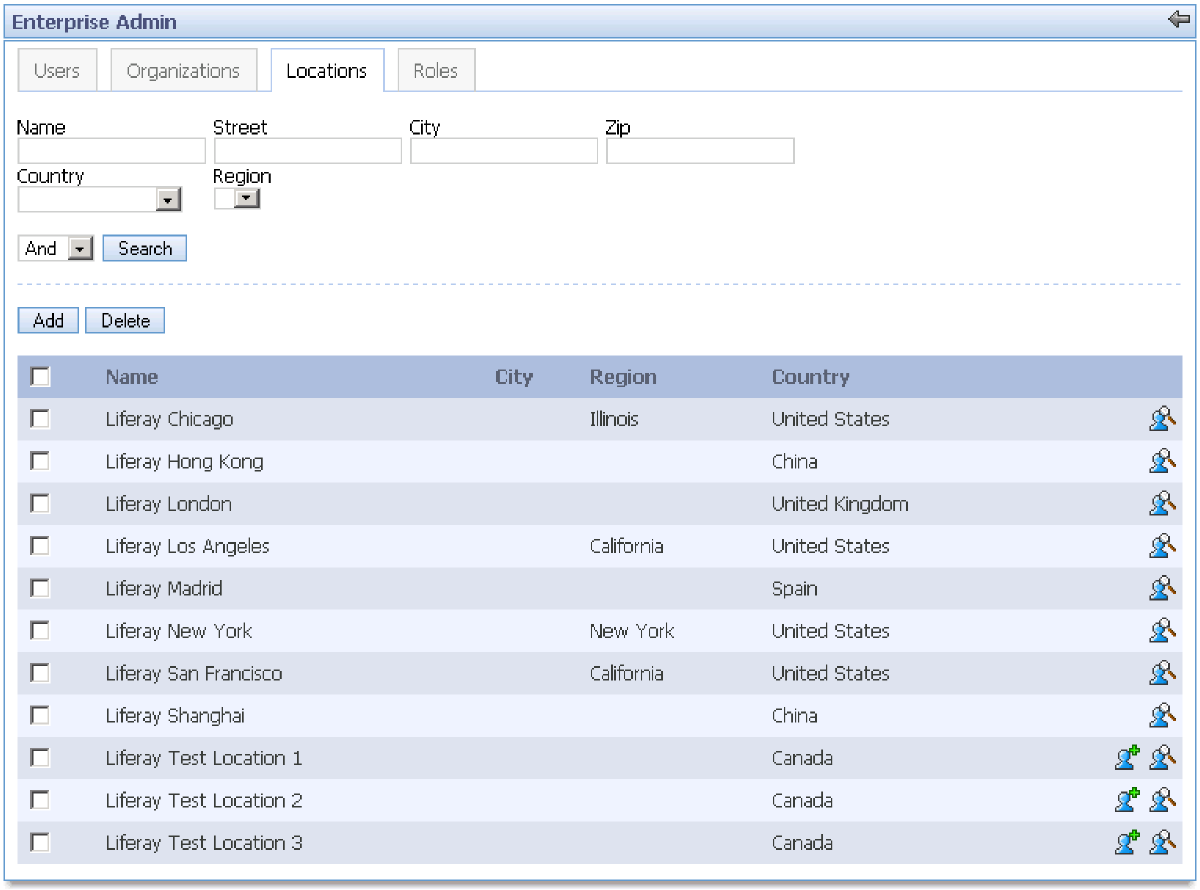
After clicking the **Save** button, click on the **Users** tab and search for Last Name = "User". The following screen is displayed.



17. In the screen above, notice the Test LAX 4 user has all permissions for *both* the "Test User 1" and "Test User 2" users. This is because Test LAX 4 was given permission to manage any user in *any* location in the organization. Now click on the **Organizations** tab. The following screen is displayed.

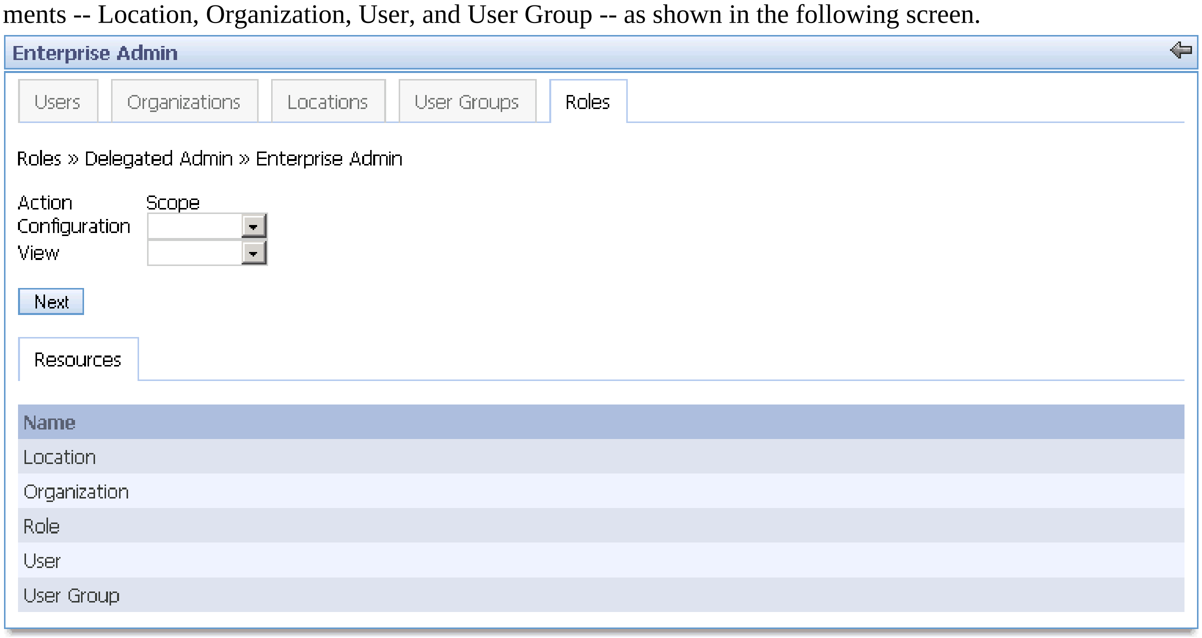


18. In the screen above, notice the Test LAX 4 user has all permissions for the "Liferay Test Organization" organization (including "Add Location". Now click on the **Locations** tab. The following screen is displayed.



19. In the screen above, notice that Test LAX 4 has permission to add users to *any* location in the "Liferay Test Organization" organization.

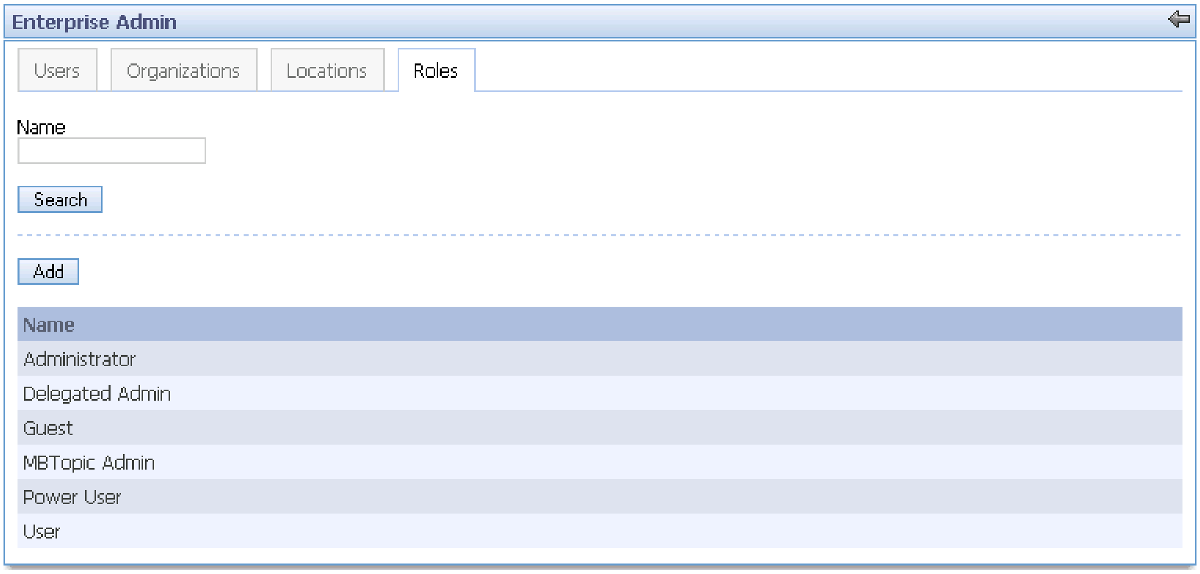
20. Alternatively, all of the permissions discussed in this use case could have been controlled at an Enterprise or Community scope via roles. The Enterprise Admin portlet has 4 resources available for the permission assignments -- Location, Organization, User, and User Group -- as shown in the following screen.



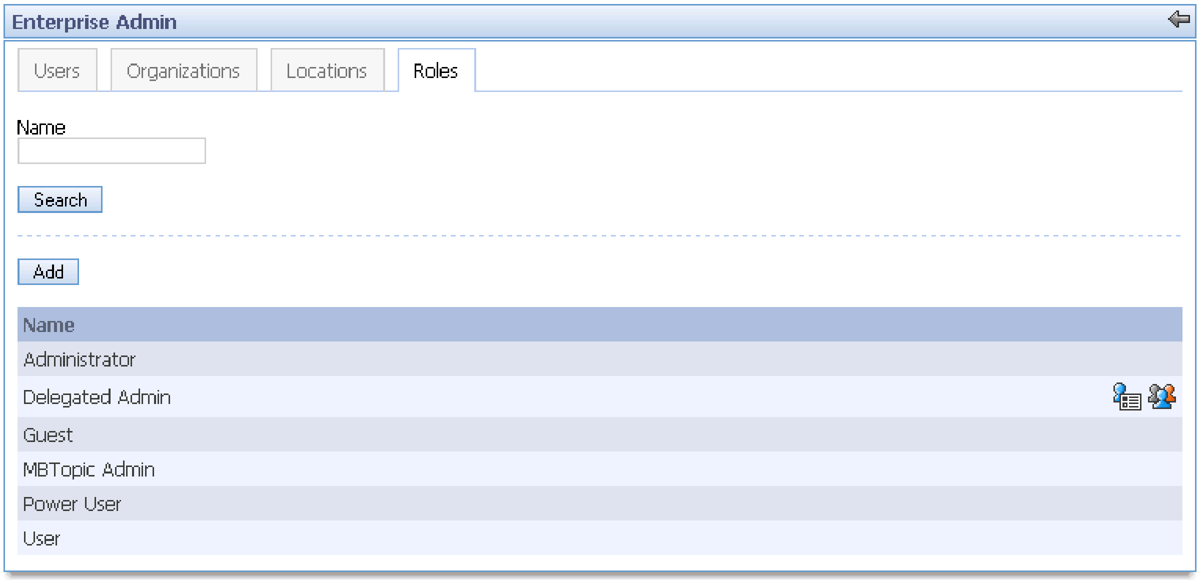
Role Permissions

Goal: To delegate permissions to users such that they will be able to manage roles.

1. Log into the portal as Test LAX 2, navigate to the "Support" community, and click on the **Roles** tab in the Enterprise Admin portlet. The following screen is displayed.



2. In the screen above, notice that Test LAX 2 has no permission to do anything to the existing roles. Test LAX 2 only has permission to add a new role. Now log into the portal as an Administrator, navigate to the Enterprise Admin portlet, click on the **Roles** tab, and click on the **Permissions** icon next to the "Delegated Admin" role. Under the **Users** -> **Available** tab, find and check the Test LAX 2 user, and click the **Update Permissions** button. Give the Test LAX 2 user the "Add Permissions", "Assign Users", and "View" permissions and click the **Finished** button. Now go back to Test LAX 2 and refresh the **Roles** tab in the Enterprise Admin portlet. The following screen is displayed.



3. In the screen above, notice the Test LAX 2 user now has permission to delegate permissions and assign this role to users.

NOTE: Be *very* careful when assigning the "Add Permissions" permission to a role. This essentially gives any user who has this role Administrator access since the user can add any permission in the system to their role.

4. Alternatively, all of the permissions discussed in this use case could have been controlled at an Enterprise or Community scope via roles. The Enterprise Admin portlet has a Role resource available for the permission assignments.

Personal Community Permissions

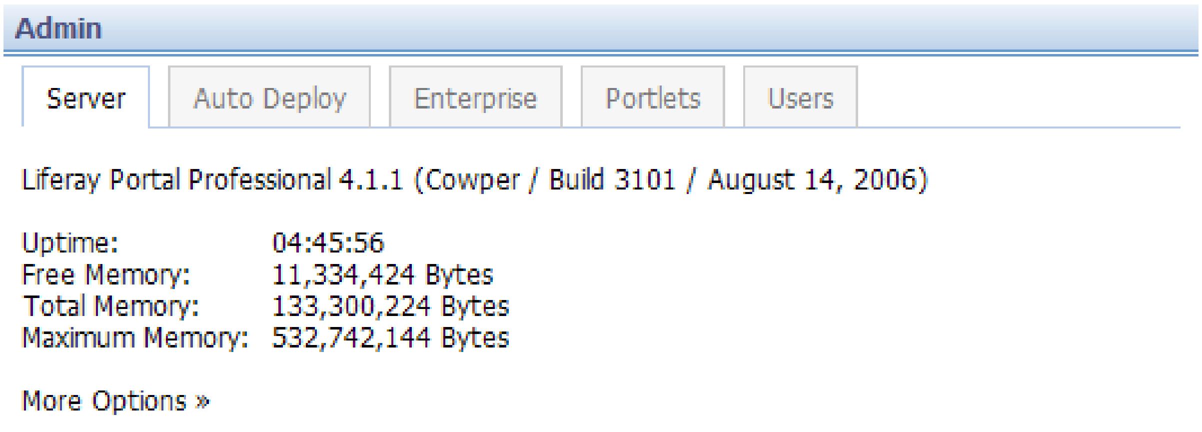
There is no real "Goal" to this section. It is just to note that portal users who have the "Power User" role are given a personal community or "Desktop". Users are defaulted to this community when they log in. A user's personal community can not be seen or accessed by any other user including Administrators. Within the personal community, the user functions as an Administrator and has all permissions on all pages, portlets, and resources.

Chapter 4. Admin Portlet

The functionalites of each tab in the Admin Portlet, except for the Auto Deploy tab, will be explained in this section. See Chapter 5-8 for an explanation of the functionalities of the Auto Deploy tab.

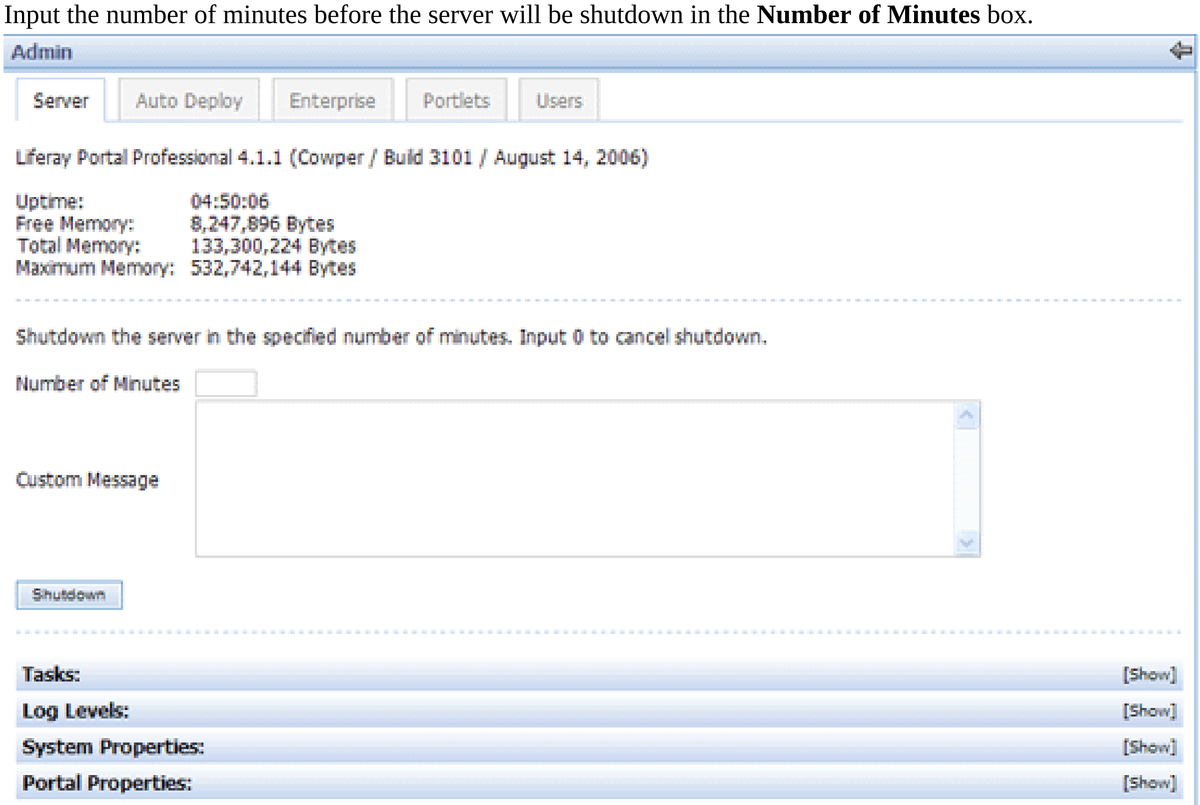
Server Tab: Shut Down Server

1. From the **Server** tab you can shutdown the server.



2. Click **More Options**.

3. Input the number of minutes before the server will be shutdown in the **Number of Minutes** box.



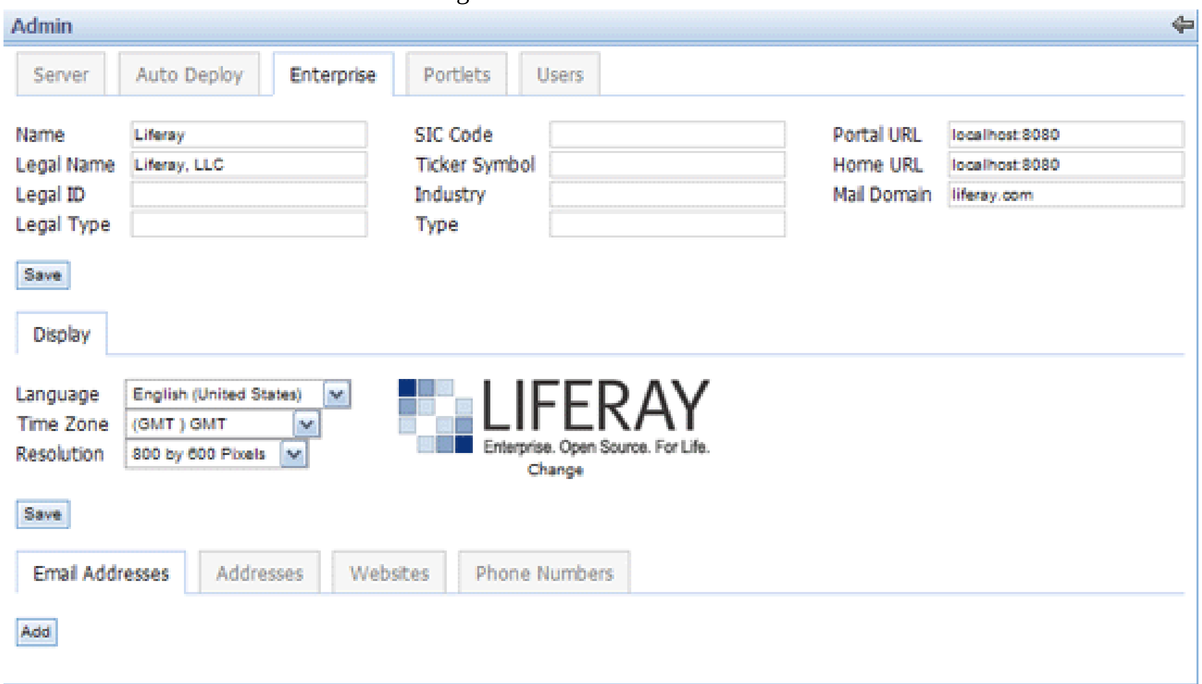
4. Notes can be added in the Custom Message box.

5. Click **Shutdown**.

6. To cancel shutdown, enter 0 and click **Shutdown**.

Enterprise Tab: Edit Enterprise's Profile

1. An enterprise's information can be viewed or edited from the **Enterprise** tab. The **Mail Domain** box contains the domain names that the server will recognize.

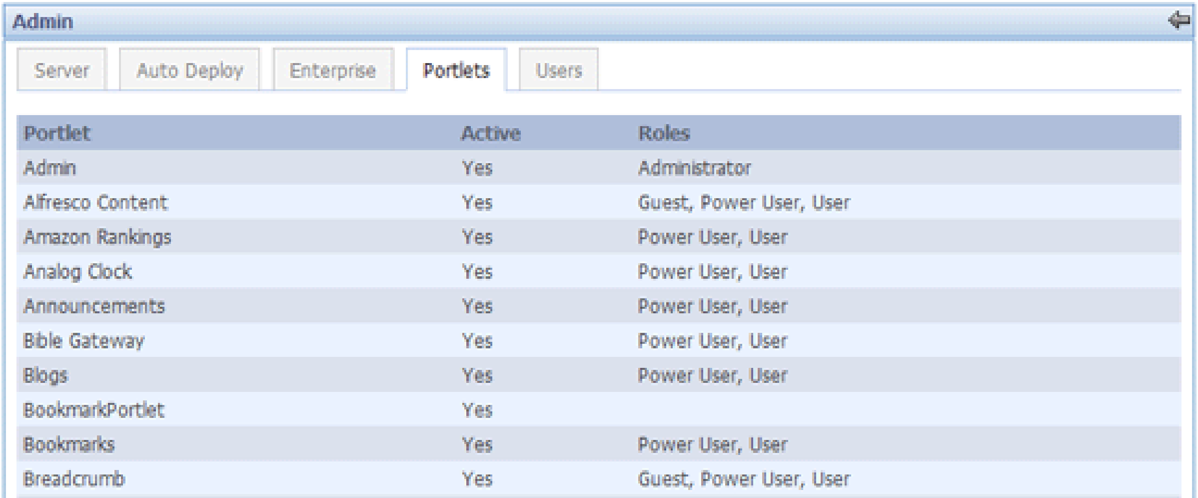


2. The default language, time zone, and resolution can be changed in the Display section.

3. Click **Save** after making any changes.

Portlets Tab: Set Minimum Required Roles for Portlet Access

1. The **Portlets** tab shows the minimum required roles for an individual to access a portlet. For example, in the case of the Blogs portlet, a person must have the minimum required role of a User or Power User. Guests will not have access to this portlet.



2. To change the minimum required roles, click on the portlet and make any changes in the text box, and click **Save**.

Users Tab

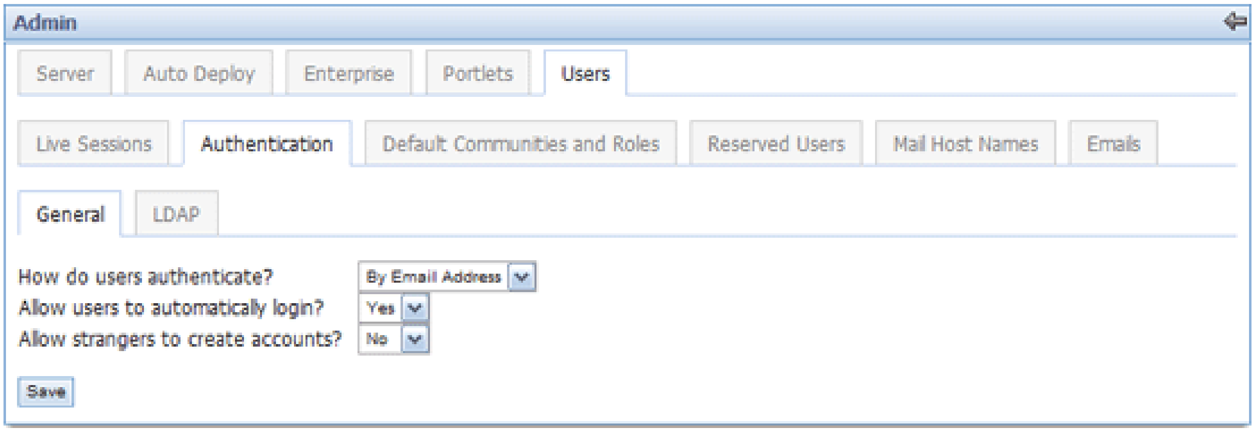
Under the User tab are six sub-tabs:

Live Session: View Current Users and End User's Session

1. The Live Session tab shows a list of all users who are currently logged in.

2. To end a user's session, click on the user and click **Kill Session**.

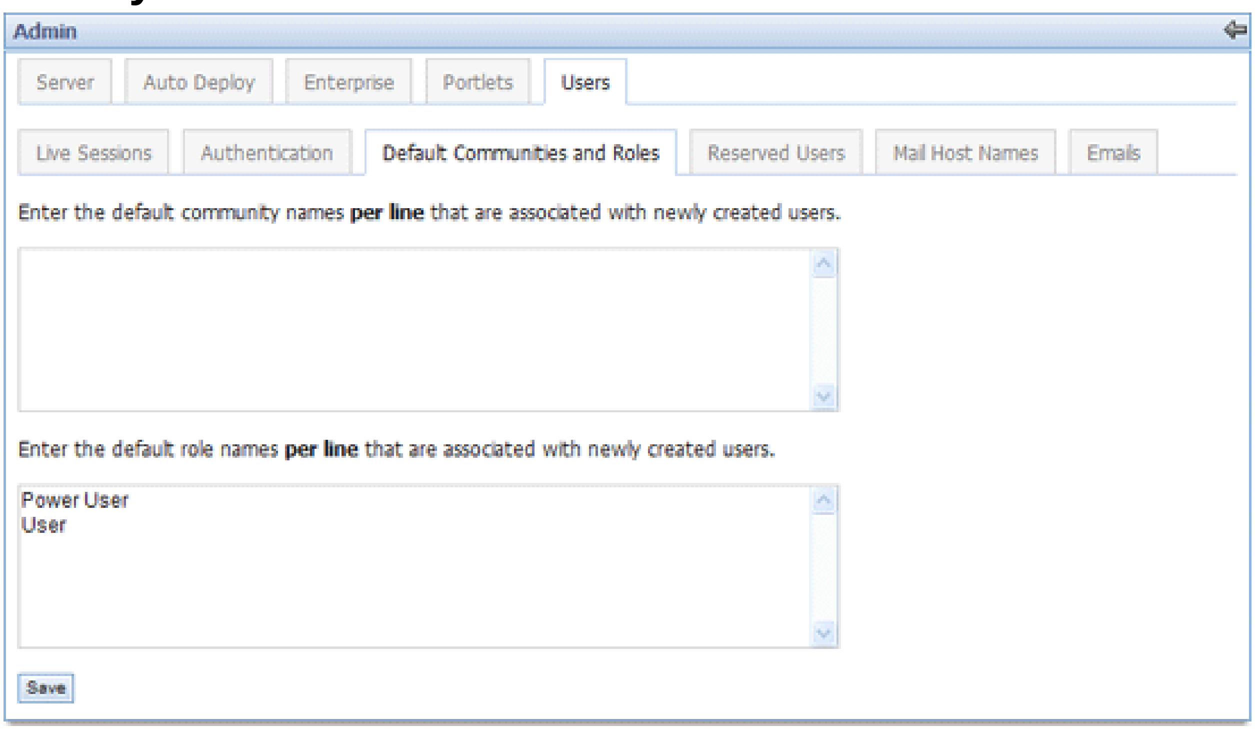
Authentication: User Account Authentication



1. With the **General** tab selected, the mode of authentication, whether a user signs in by email address or by user ID, can be selected on the first line. The second line provides the option for users to automatically login. The third line provides the option to allow strangers to create accounts.

2. Click **Save** after making any changes.

Default Communities and Roles: Setg Default Community Names and Roles

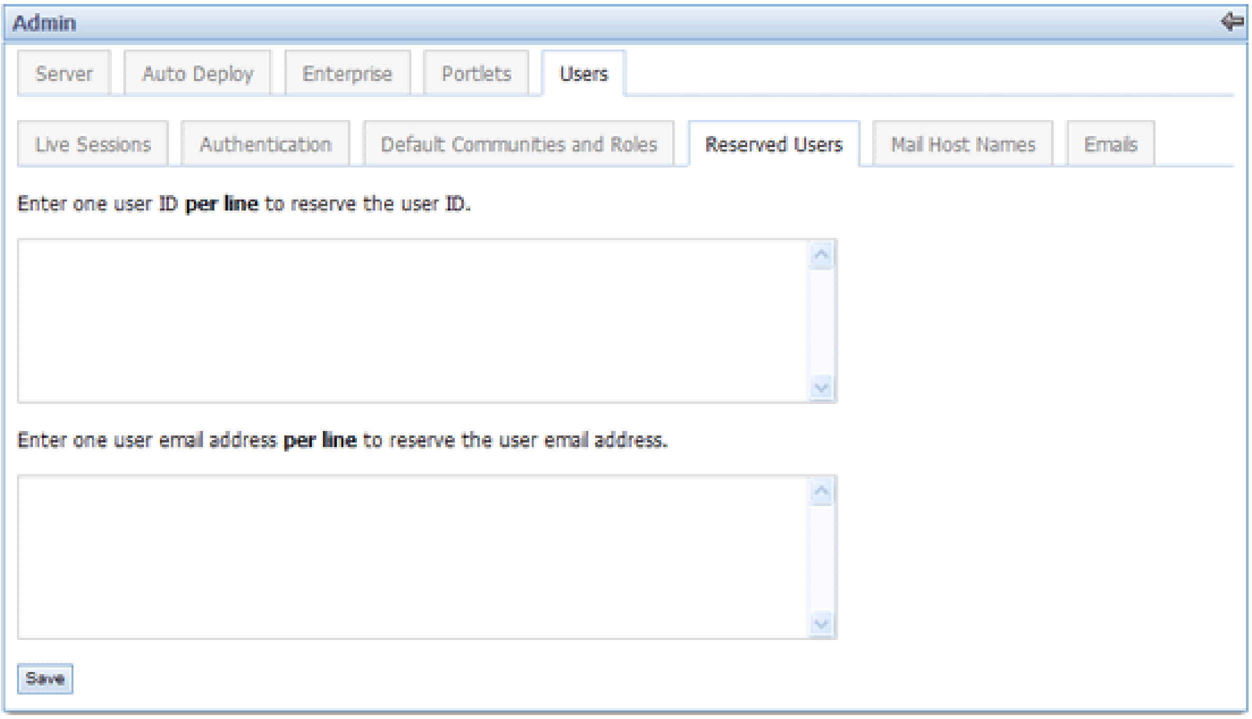


1. Under the **Default Communities and Roles tab**, you can enter default community names that are associated with newly created users.

2. In the second box, you can enter default roles that are associated with newly created users.

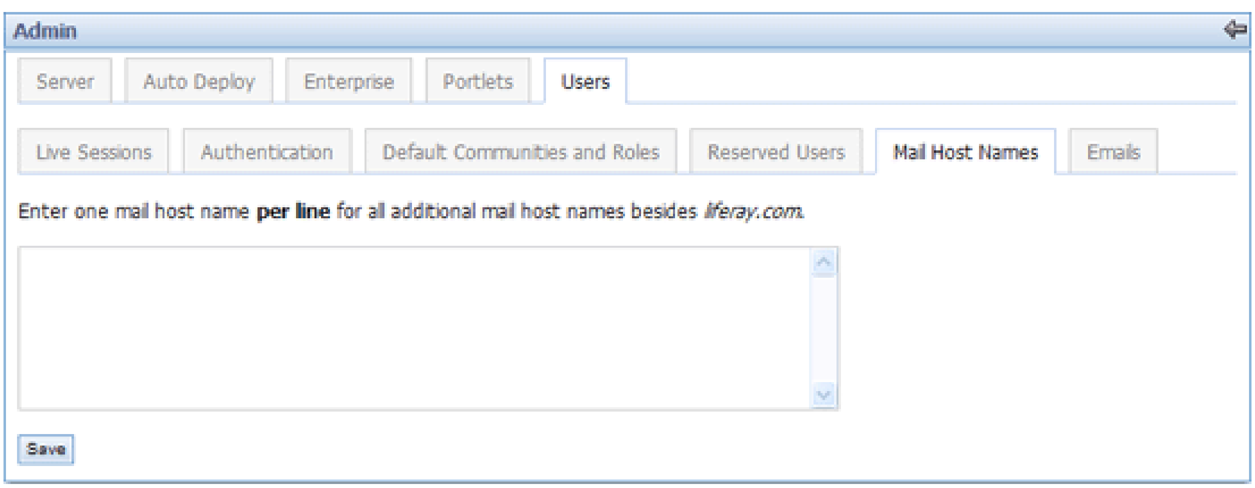
3. Click **Save** after making any changes.

Reserved Users: Reserve User ID and Email



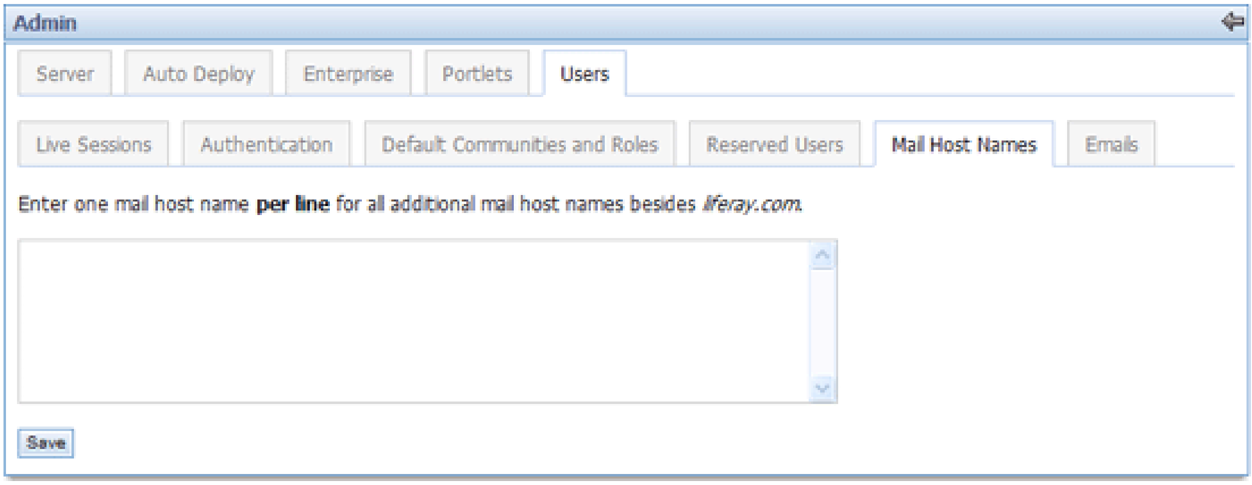
1. In the first box, you can reserve user ID names that can not be used by users.
2. In the second box, you can reserve user email addresses.
3. Click **Save** after making any changes.

Mail Host Names: Add Mail Host Name



1. Additional mail host names besides liferay.com can be entered here.
2. Click **Save** after making any changes.

Emails: Automatically Generated Emails



1. From the **Emails tab**, with the **Email From** sub-tab selected, you can enter the name and email address of automatically generated emails.
2. With the **User Added Email** sub-tab selected, you can make changes to the default message that is automatically sent when accounts are created. To disable new account emails, uncheck the **Enabled** box.
3. With the **Password Sent Email** tab selected, you can make changes to the default message that is automatically sent when a new password is created. To disable new account emails, uncheck the **Enabled** box.
4. Click **Save** after making any changes.

Chapter 5. LDAP Integration

In this chapter you will learn about LDAP integration. The initial set of instructions will guide you through the installation of the Apache directory server and an LDAP browser. The instructions will then guide you to input a user into the LDAP browser. After the user has been entered into the browser the user will be integrated with Liferay Portal.

Installing Apache Directory Server

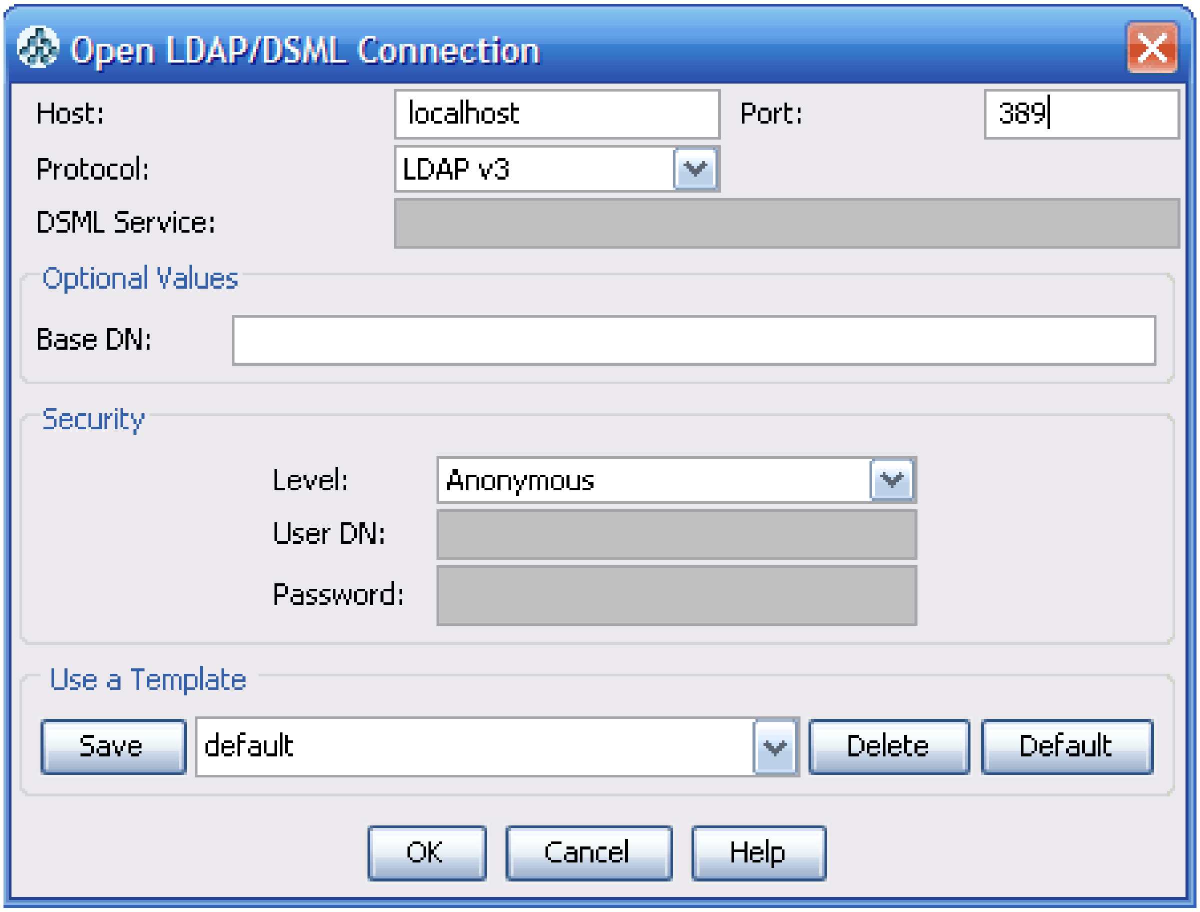
1. Go to www.apache.org.
2. Click **Directory**.
3. Click **Download**.
4. Click on the suggested mirror site for download.
5. Click **apacheds**>**stable**>**1.0**>**1.0 RC3**>**apacheds-1.0-RC3-win32-setup.exe**
6. **Save** file.
7. Click on the **Apache** icon and follow the installation instructions.
8. Click **Start**.

Installing LDAP Browser

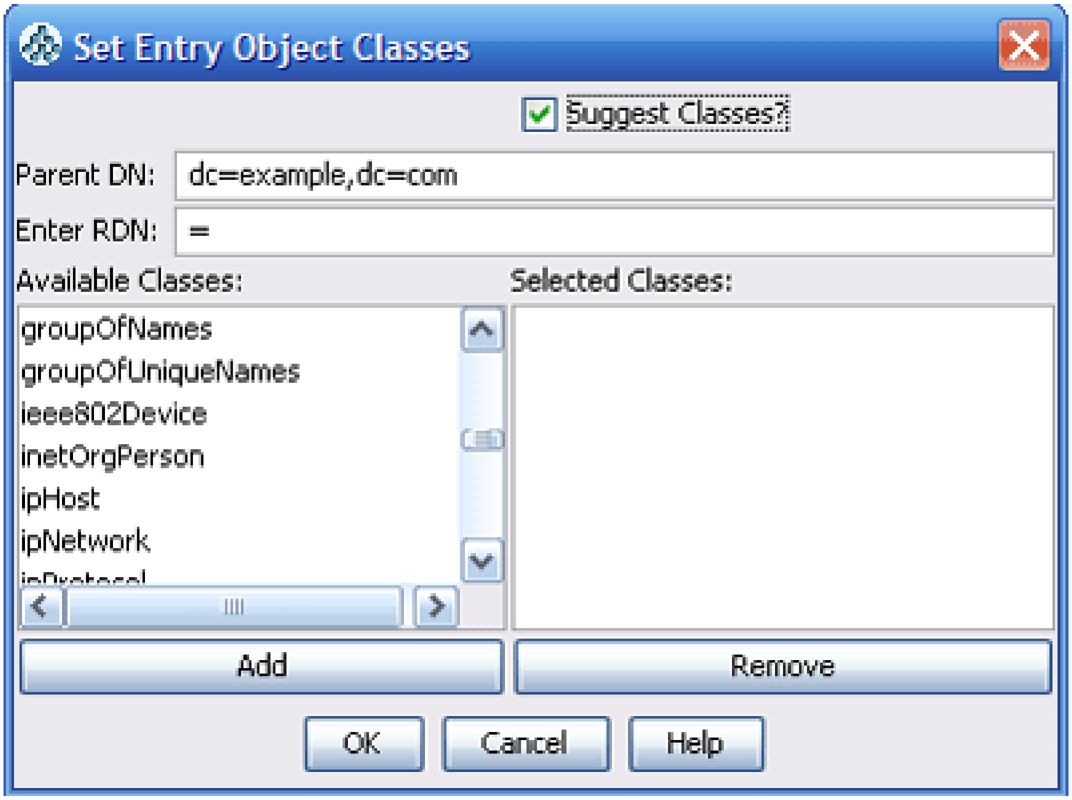
1. Go to www.jxplorer.org.
2. Click **Downloads**>**precompiled java package**>**Windows** platform.
3. **Save** file.
4. Click on the LDAP browser icon and follow the installation instructions.

Inputting User in LDAP Browser

1. Open the LDAP browser.
2. Click **File**>**Connect**.

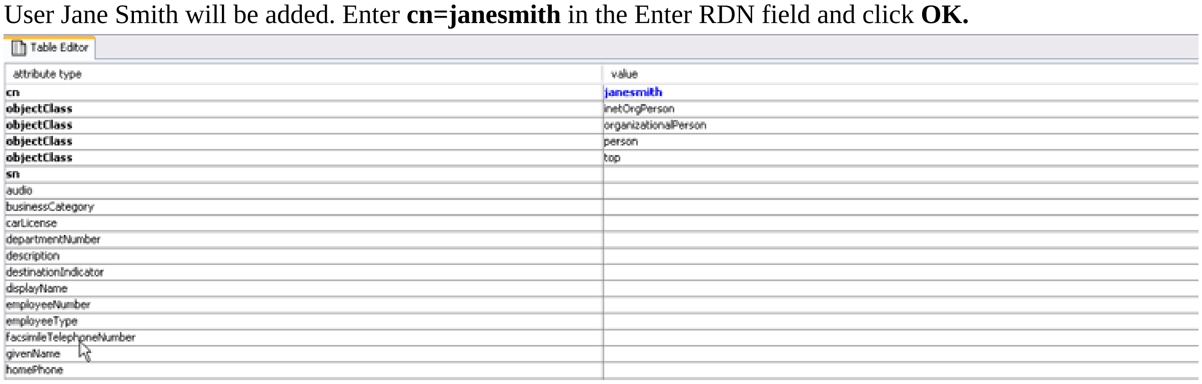


3. Change the port to 10389.
4. In the **Level** drop-down menu, choose **User+Password**.
5. Insert `uid=admin,ou=system` in the User DN input field.
6. The password is **secret**.
7. Click **Save** and enter a name for the template.
8. Right click on **Example** and click **New**.



9. Add **inetorgperson** to the Selected Class.

10. User Jane Smith will be added. Enter **cn=janesmith** in the Enter RDN field and click **OK.**



11. In the Table Editor enter **Smith** in the **SN** line.

12. Enter **Jane** in the givenName line.

13. For the mail enter janesmith@liferay.com.

14. For the userpassword enter **test**.

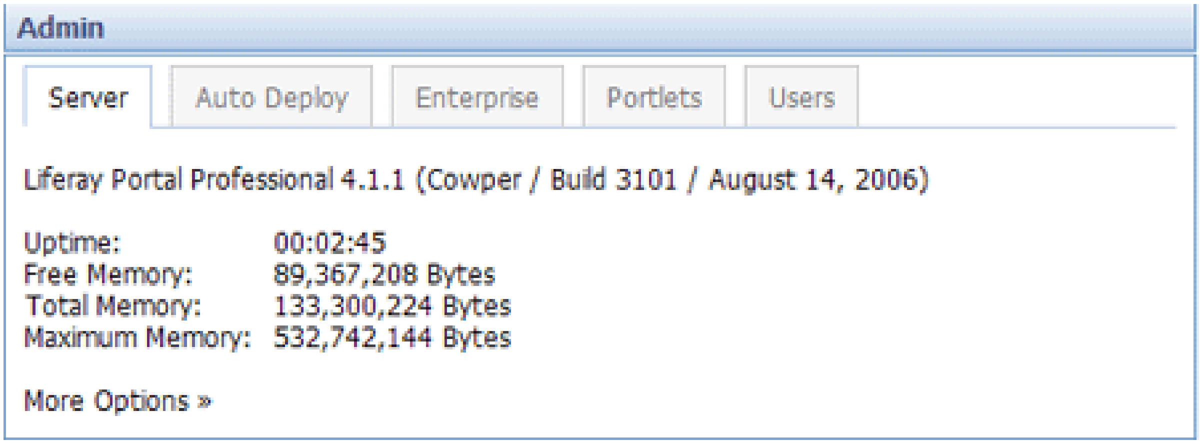
15. Click **Submit**.

Integration

1. With user Jane Smith entered into the LDAP browser, the user will now be integrated with Liferay Portal. Begin by logging into Liferay Portal as the Administrator.

2. The login is **test@liferay.com** and the password is **test**.

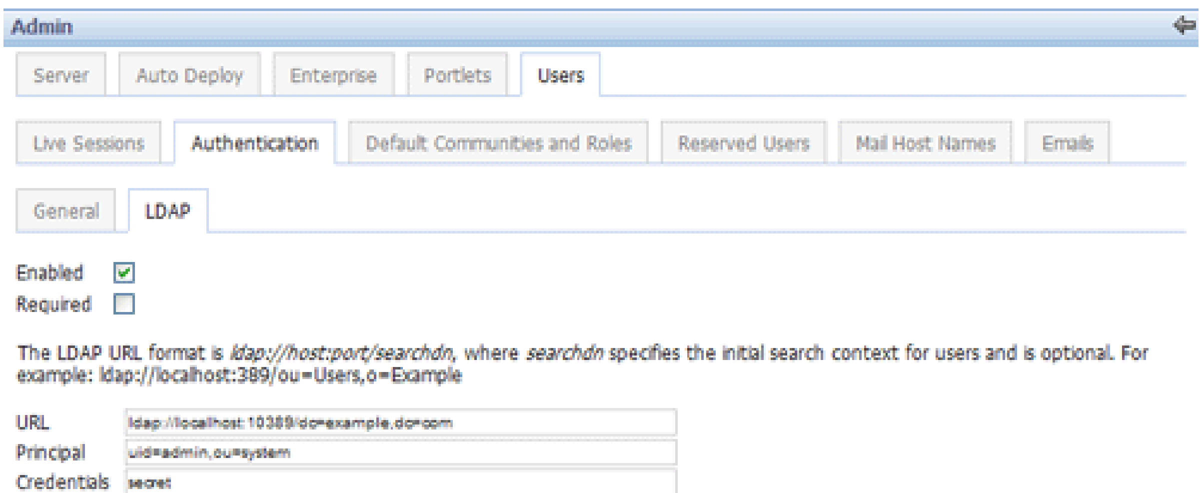
3. Currently, Jane Smith's profile exists only on the LDAP browser. To integrate her information into Liferay Portal, click on the **Users tab** in the Admin portlet.



4. Click **Authentication**.

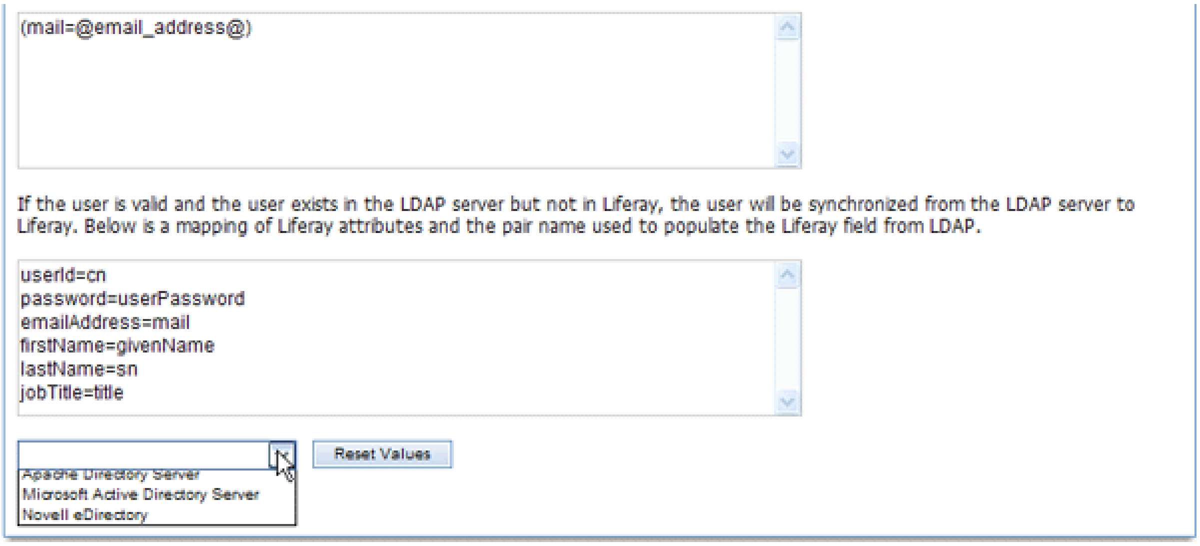
5. Click **LDAP**.

6. Check the **Enabled** box.



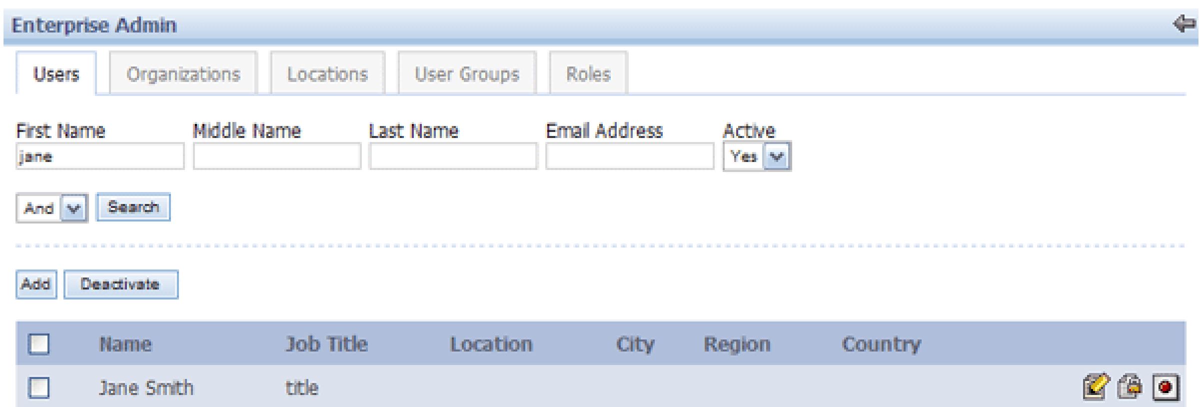
7. If the **Required** box is checked only users in the LDAP server will be able to log into Liferay Portal. For this demonstration leave the box unchecked.

8. Liferay Portal supports other directory servers in addition to the ones provided. The Apache Directory Server, Microsoft Active Directory Server, and Novell eDirectory comes prepackaged.



9. Select the **Apache Directory Server** and click **Save**.

10. Once Jane Smith logs in to her account on Liferay Portal and agrees to the terms of use, her user information will be added to Liferay Portal. To demonstrate this, assume that Jane Smith has logged into her account. While logged in as the Administrator, a search for Jane Smith will show that the user has been integrated into Liferay Portal.



Chapter 6. Auto Deploy Portlets

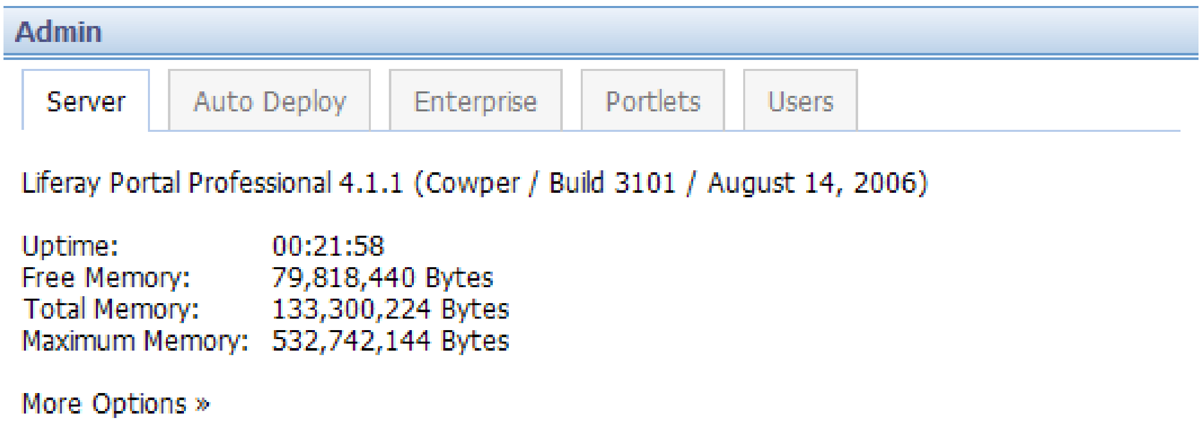
Sample portlets offered by Sun Microsystem will be downloaded and then auto deployed onto Liferay Portal

1. Go to Sun Microsystem's website at http://developers.sun.com/prodtech/portalserver/reference/techart/jsr168/index.html#1 to download the sample portlets. For your convenience, the link can be found in Liferay’s Download page under the JSR-168 Compliant Portlets link.

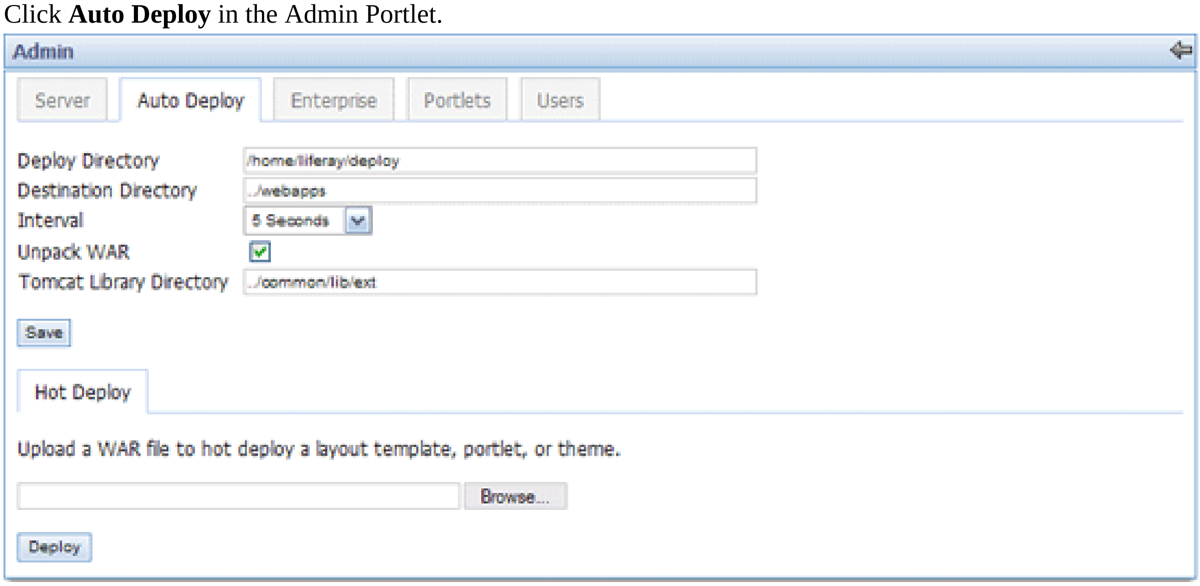
2. Click **Downloads** to download the four sample portlets.

3. **Save** the file.

4. Go to Liferay Portal and log in as the Administrator.



5. Click **Auto Deploy** in the Admin Portlet.

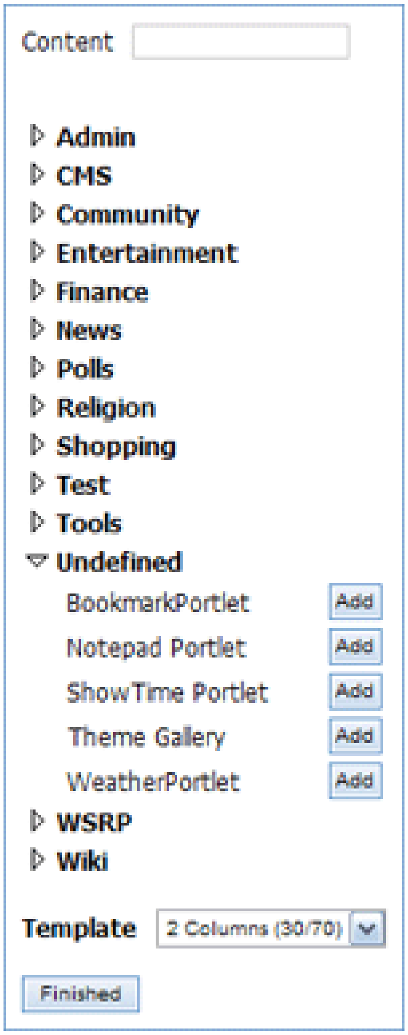


6. Click **Browse** and locate the sample portlets file.

7. Click **Deploy**.

8. To see a list of the sample portlets, go to **Add Content**>**Undefined**. The BookmarkPortlet, Notepad Portlet,

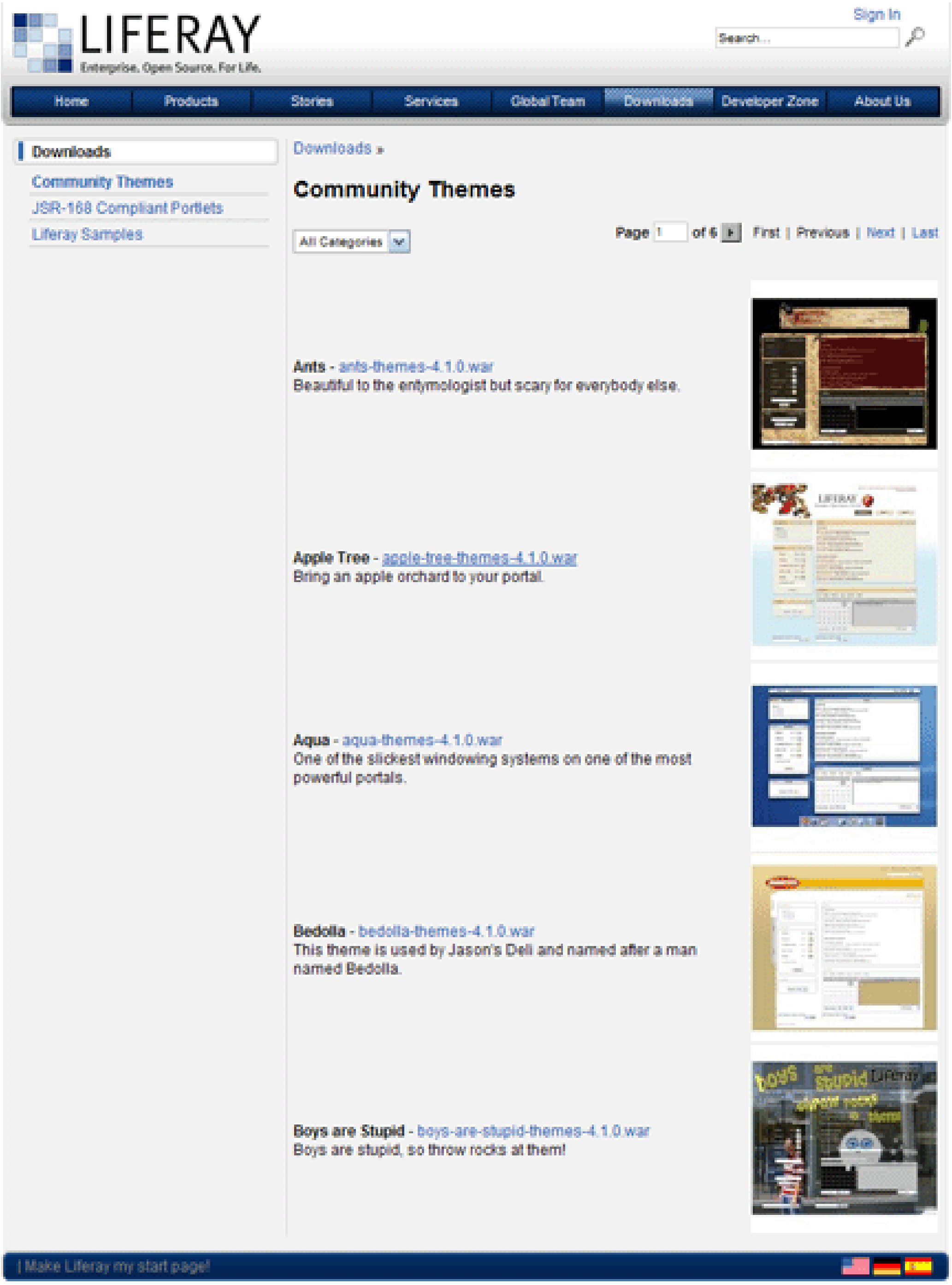
Show Time Portlet, and WeatherPortlet have been added.



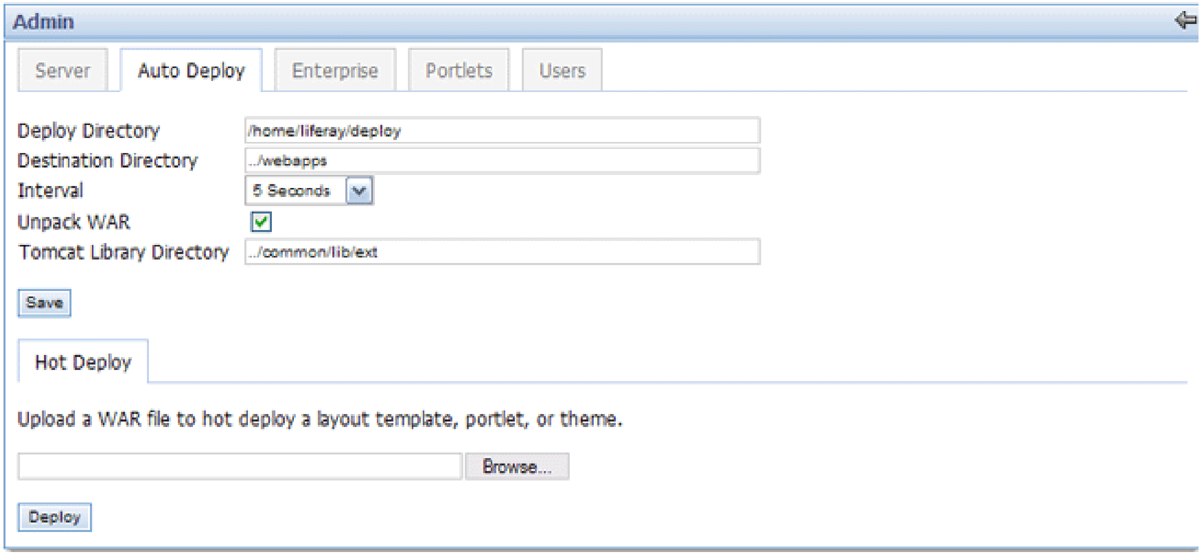
Chapter 7. Deploying Community Themes

Along with the prepackaged themes in Liferay Portal, there are many additional themes that are available on Liferay's download page. In this section you will learn how to deploy a community theme onto Liferay Portal.

1. Go to www.liferay.com.
2. Click **Downloads**.
3. Click **Community Themes**.

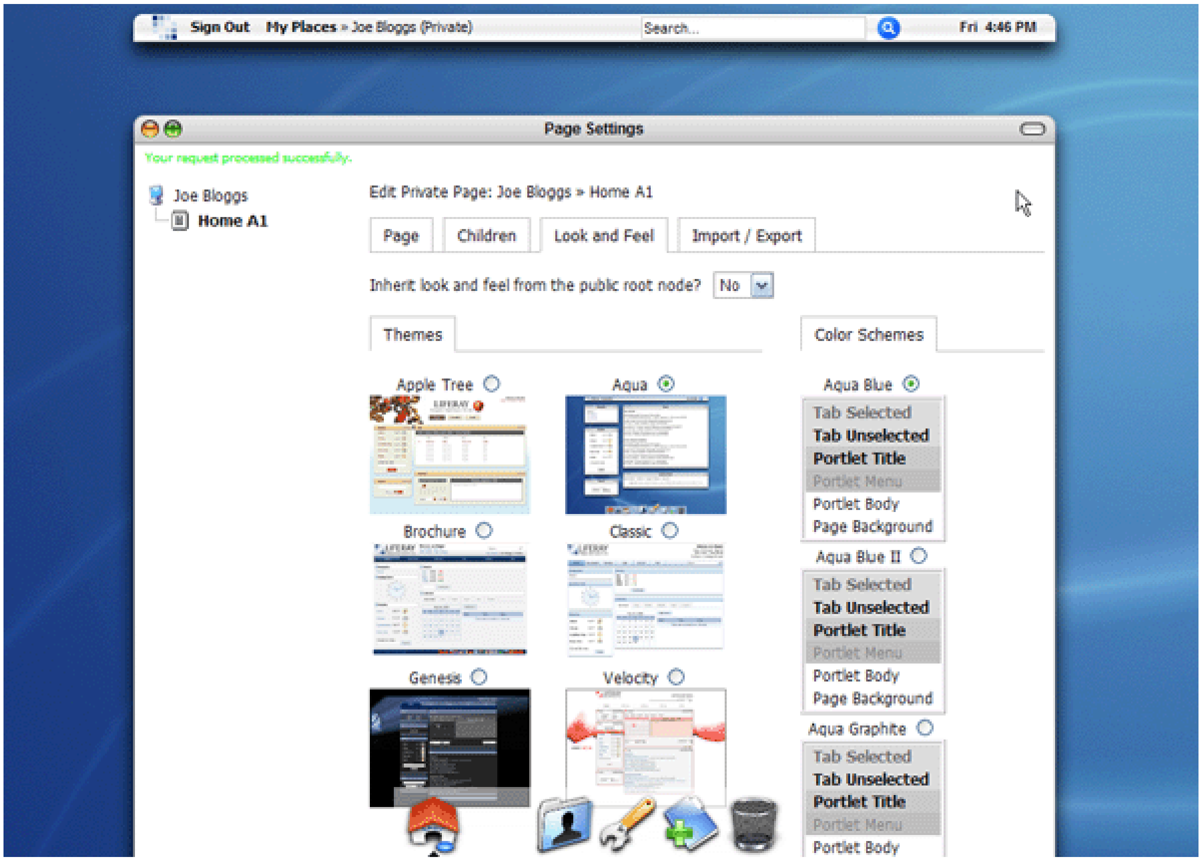


4. Select a theme. For this demonstration, the Aqua theme will be added. Click on the Aqua theme link.
5. Choose a location to download from and click **Download**.
6. **Save** file.
7. Log into Liferay Portal and sign in as the Administrator.
8. In the Admin Portlet, click on **Auto Deploy**.



9. Click **Browse** and locate the Aqua theme file.
10. Click **Deploy**.
11. To deploy the Aqua theme on the page, click **Page Settings**.
12. Click **Look and Feel**.

13. Select the Aqua theme to deploy. The figure below shows the Aqua theme deployed.


Sign Out
My Places » Joe Bloggs (Private)
Search...
Fri 4:46 PM
Page Settings
Your request processed successfully.
Joe Bloggs
Home A1
Edit Private Page: Joe Bloggs » Home A1
Page
Children
Look and Feel
Import / Export
Inherit look and feel from the public root node?
No
Themes
Color Schemes
Apple Tree
Aqua
Brochure
Classic
Genesis
Velocity
Aqua Blue
Tab Selected
Tab Unselected
Portlet Title
Portlet Menu
Portlet Body
Page Background
Aqua Blue II
Tab Selected
Tab Unselected
Portlet Title
Portlet Menu
Portlet Body
Page Background
Aqua Graphite
Tab Selected
Tab Unselected
Portlet Title
Portlet Menu
Portlet Body

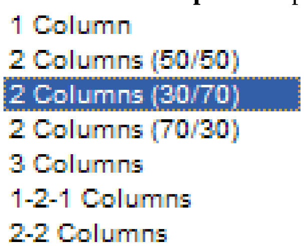
Chapter 8. Adding Layout Template

The pages of Liferay Portal are organized according to the layout templates used. Seven different layout templates are provided with the option for users to write and add new ones. This section will provide instructions for adding a sample layout template.

1. Begin by logging in as the Administrator.

2. To see a list of layout templates that comes prepackaged with Liferay Portal, click **Add Content**.

3. Click on the **Template** drop down menu. Seven templates are available.



4. To add an additional template, go to Liferay's download page located at ht-tp://www.liferay.com/web/guest/downloads.

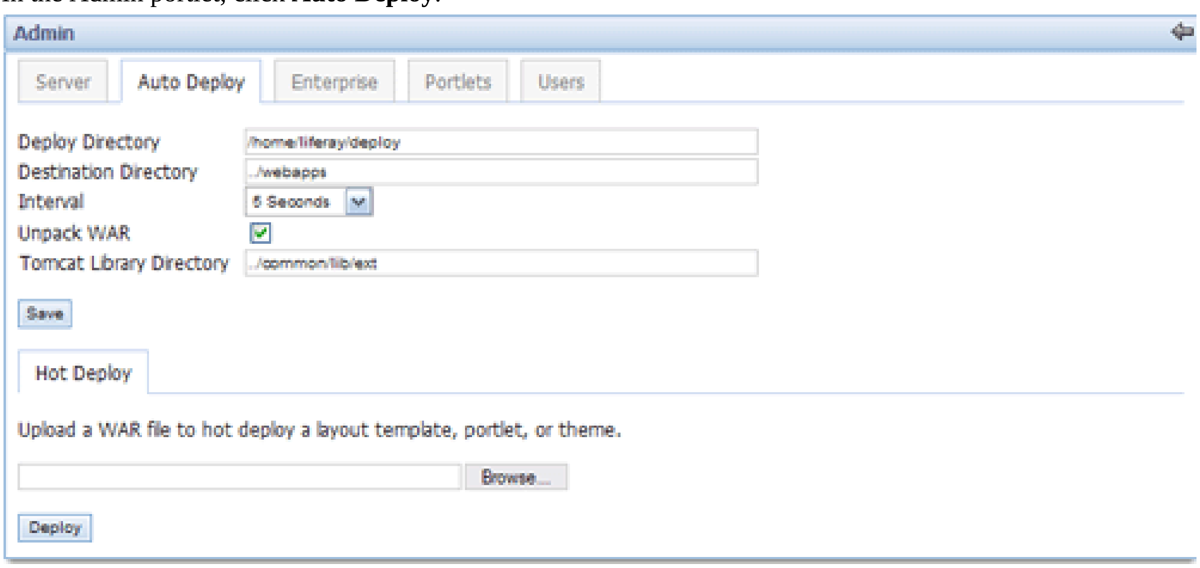
5. Click on **Liferay Samples**.

6. The sample layout template that will be added contains a 2-1-2 layout. The first row contains two columns of portlets, the second row contains one column of portlets, and the third row contains two columns of portlets. Click on the **Sample Layout Template**.

7. Select a location to download from and **Save** the file.

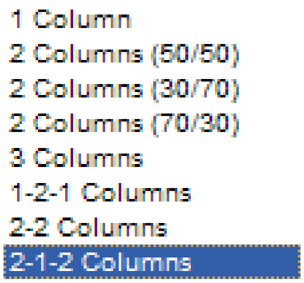
8. After the file has been saved, log back in as the Administrator.

9. In the Admin portlet, click **Auto Deploy**.



10. Click **Browse** to locate the file, and click **Deploy**.

11. To verify that the new template has been added, click on **Add Content**.
12. Click on the **Template** drop down menu. The 2-1-2 layout template will appear in the list.



Chapter 9. Content Management System

This chapter will give an in depth tutorial of the CMS (Content Management System) within Liferay portal. The intended audience of this document is for users who determine the content that is displayed and published on their portal. Distinct roles for specific users are provided in the introduction.

Introduction

Liferay Portal provides out-of-the-box CMS functionality in two major areas: document management (repositories for documents and images) and publishing.

Document Management

Document management is provided through Liferay's Document Library and Image Gallery portlets. These portlets provide intuitive management of Microsoft Office documents, PDFs, text files, and images.

Publishing

Publishing in Liferay Portal is accomplished through Liferay's Journal portlet. It features a clean separation between content (data entry) and presentation (layout design). This allows the content to conform to a consistent "look and feel." Additionally, the Journal portlet provides a content versioning and approval paradigm (workflow). This system allows for users involved in publishing to fall naturally into three different roles:

- Writers create, edit, and enter content comprised of text and images
- Designers create layouts that display content
- Editors edit and approve final output and release it for publication to the portal

As an example, consider our website [http://www.liferay.com]. All of the static content is managed and published by the Journal portlet. We can authorize other members of the Liferay community to write documentation, but we retain final editorial authority and security. This also allows for a mixture of portlets and Journal articles to coexist, enabling the designer to be more creative with what is displayed. Designers can integrate static content using the Journal Content portlet with a number of other function-rich portlets (e.g. Navigation and Breadcrumb). All of this show how useful and flexible publishing can be with the Journal portlet.

Document Management Portlets

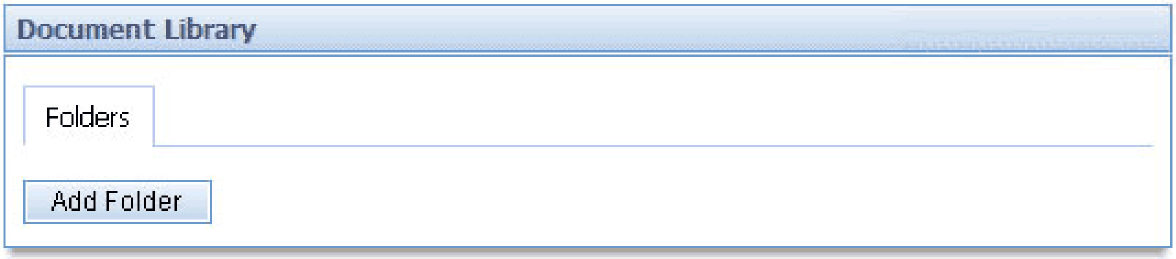
Document Library

The Document Library provides a centralized repository for various documents (e.g., .PDF, .DOC, .XLS, etc.) to be stored and given a unique URL. A company's intranet running Liferay's portal software can then be able to post internal documentation (e.g., reimbursement forms, charitable donations policies, etc.) for access by its employees. Alternatively, since each document has its own URL, a portlet on your company's public website may display a list of PDF files of quarterly newsletters and their download links:

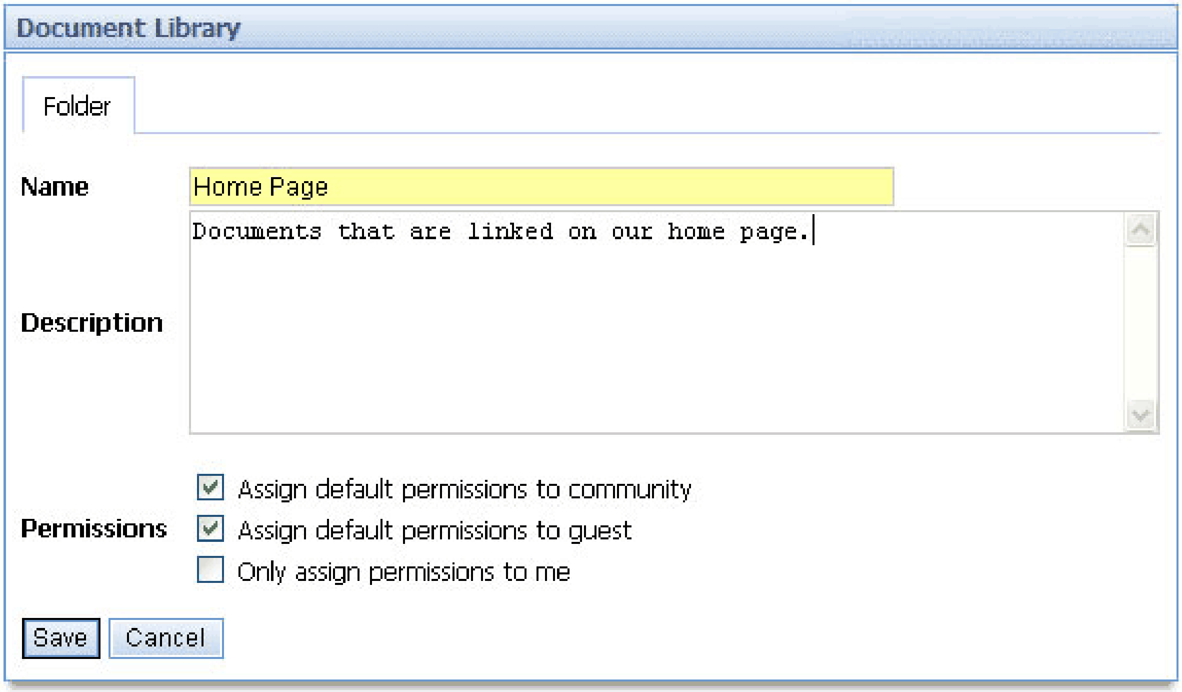
The Document Library supports multiple repositories that can be set with different access roles. Also, the documents in the repository are version-controlled, allowing a user to retrieve any particular revision that has been stored on the system.

Adding a Document

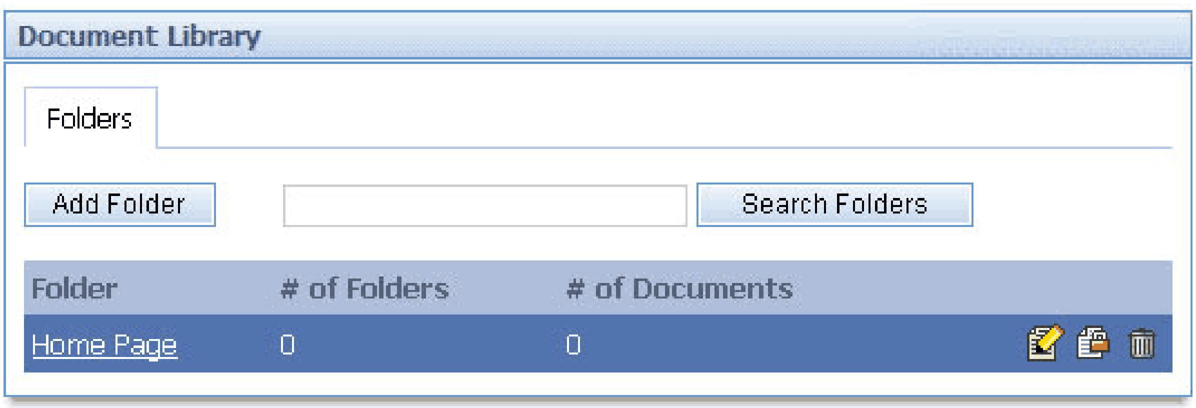
1. To add a document to an empty Document Library portlet, you must first add a folder. Click the **Add Folder** button.



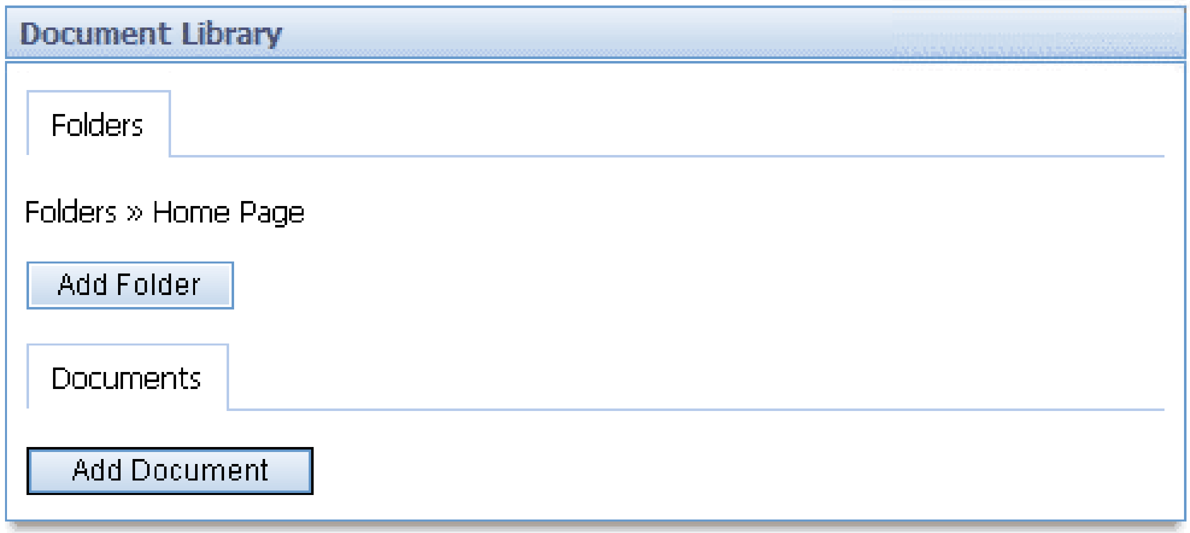
2. Give a name and description to the folder. The permissions for the folder determine what users can do. This is further explained in the Permissions Users Guide. Click **Save**. The Document Library screen will appear.



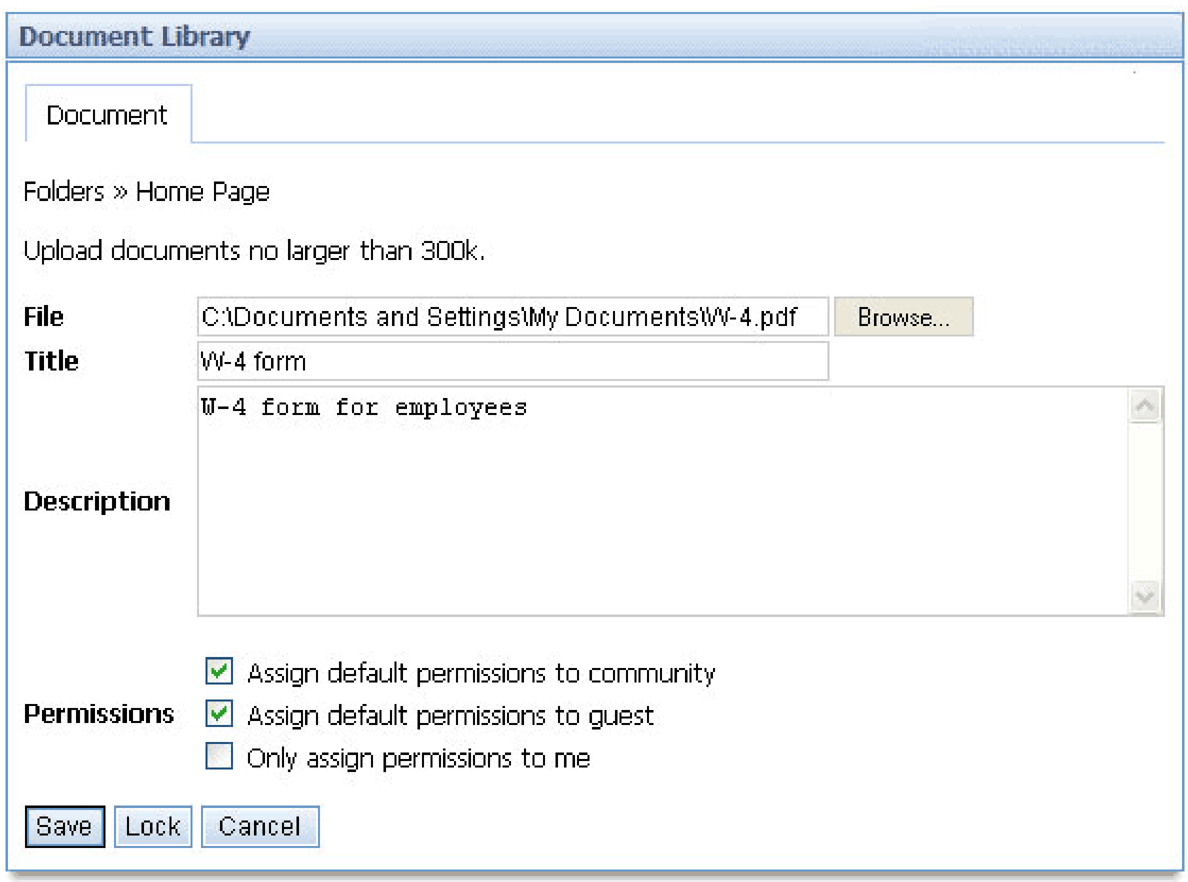
3. The new folder will appear in the Document Library. To add a document to that folder, click on the folder name.



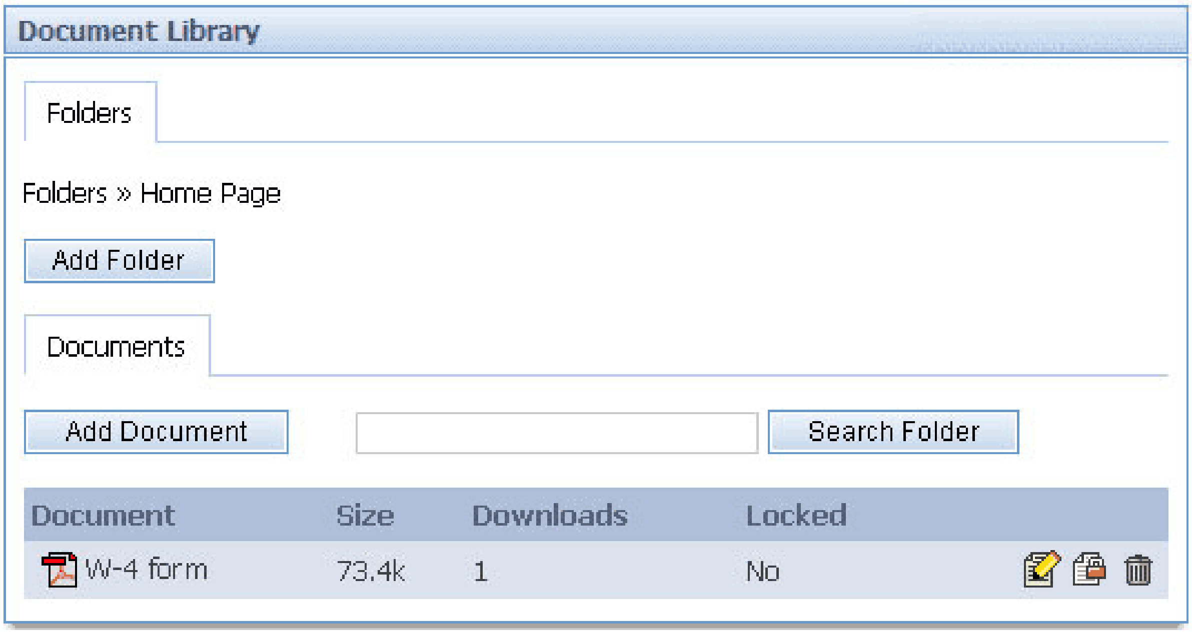
4. Here you can either add more folders to further divide your documents into more specific categories or you can add a document to the current folder. The breadcrumb (see section 5.1.) at the top of the portlet shows that you would be adding a document to the Home Page folder. In this use case, we will add a document. Click **Add Document**.



5. Use the **Browse** button to find the document you want to upload to the Document Library. There is a cap of 300k on uploaded documents. After uploading the document, enter a title and description for the document. Click **Save** when finished. After saving, you can choose to lock the document to prevent anyone from editing this document. The default lock time is one day.

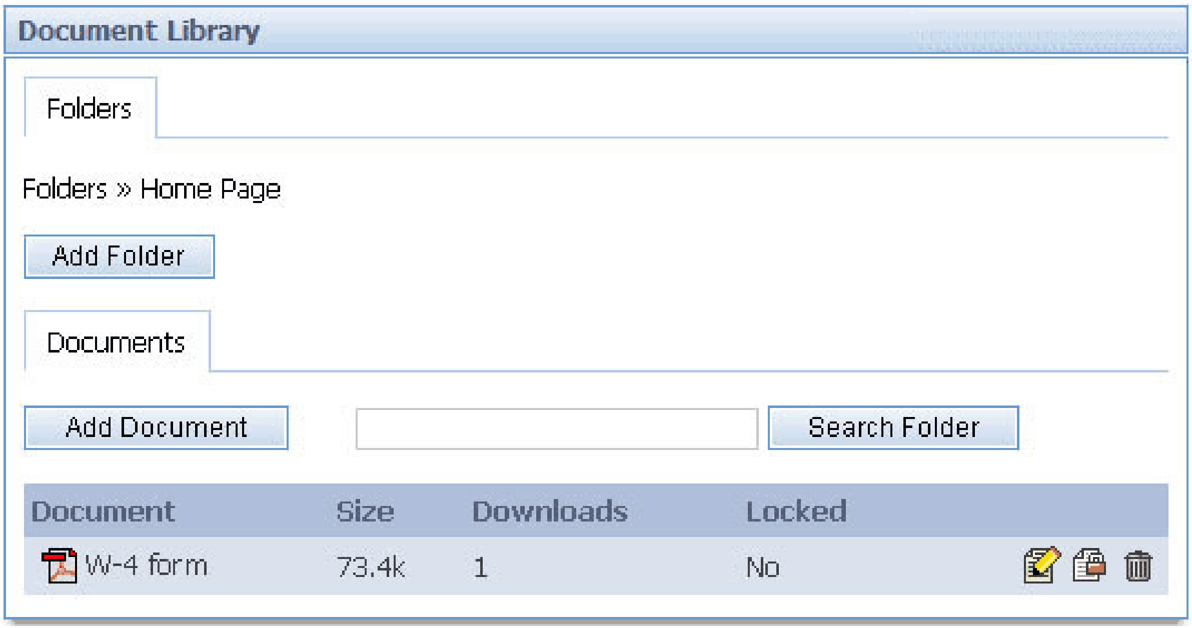


6. Use the breadcrumb to return to the Home Page folder (for this use case) where you will see the document you have just added. Clicking on the document will allow you to open or save it. If you have the proper permissions, you can delete the document from the Document Library by clicking the **Delete** icon ( ).



Referencing a Document

1. To reference a document in the Document Library, you must first find which folder the document is contained in. Using the same use case as in 2.1.1, we see that the W-4.pdf document is located in the Home Page folder, as shown by the breadcrumb.



2. Right click on the document name, then select **Properties** to view its Address (URL). You can then either highlight the entire URL or click anywhere over the URL area and press Ctrl+A to select the entire link. Keep in mind that the URL is long. If you use the highlight method, you must hightlight the entire URL. You can then copy this link and reference it anywhere within the portal. You can even reference this document outside of the portal as long as your portal is running and the document is still in the repository. Refer to figure below.

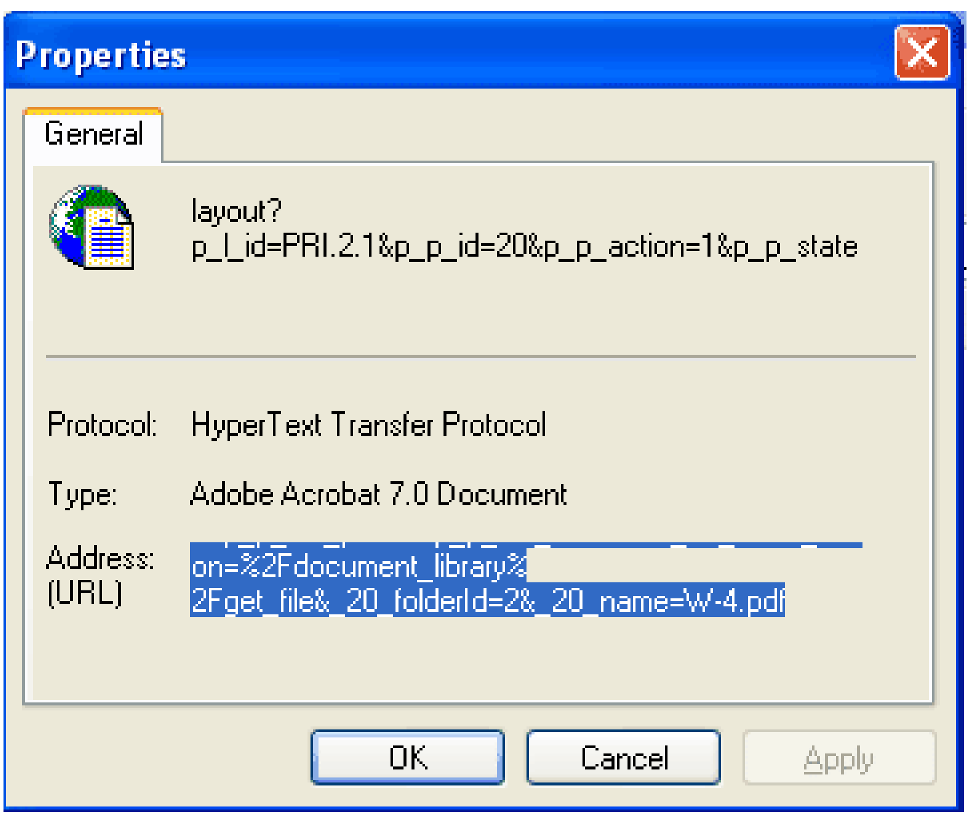


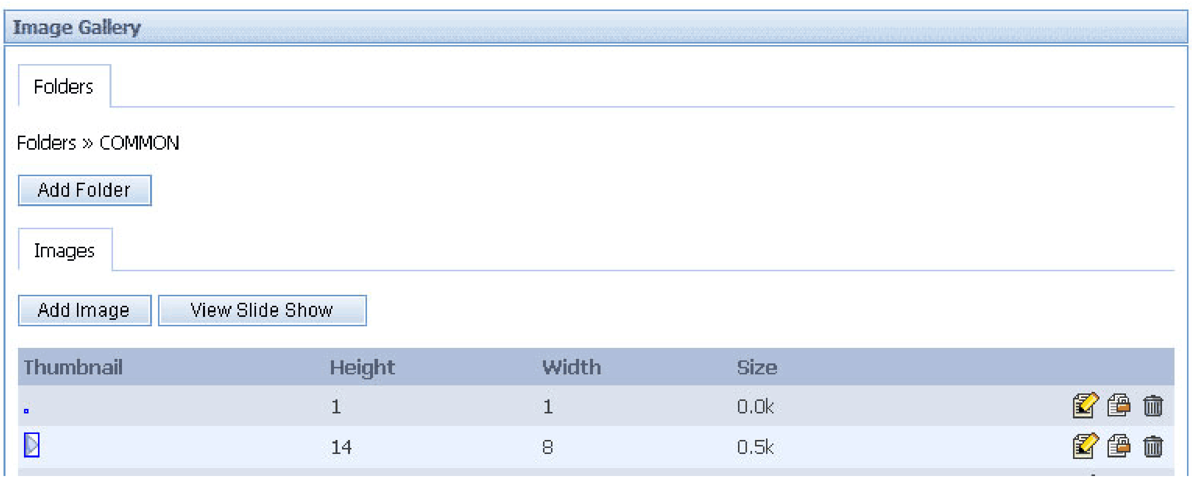
Image Gallery

Like the Document Library, the Image Gallery provides a central repository for images used throughout the Liferay Portal by a unique URL. The arrow image ( ) can be found throughout Liferay's website as a navigation icon.

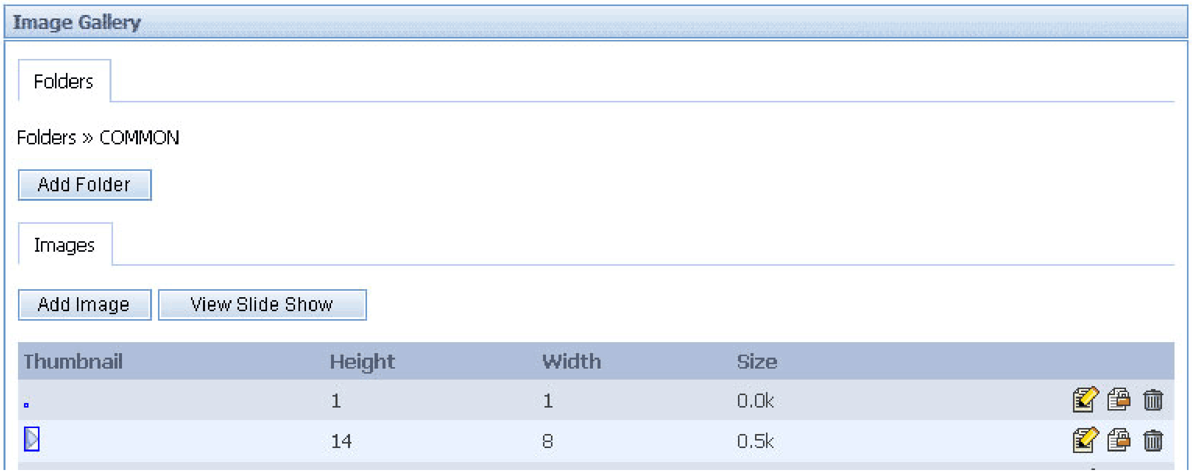
Each instance uses the same uniqueURL: @root_path@/image/image_gallery?img_id=15.

Adding an Image

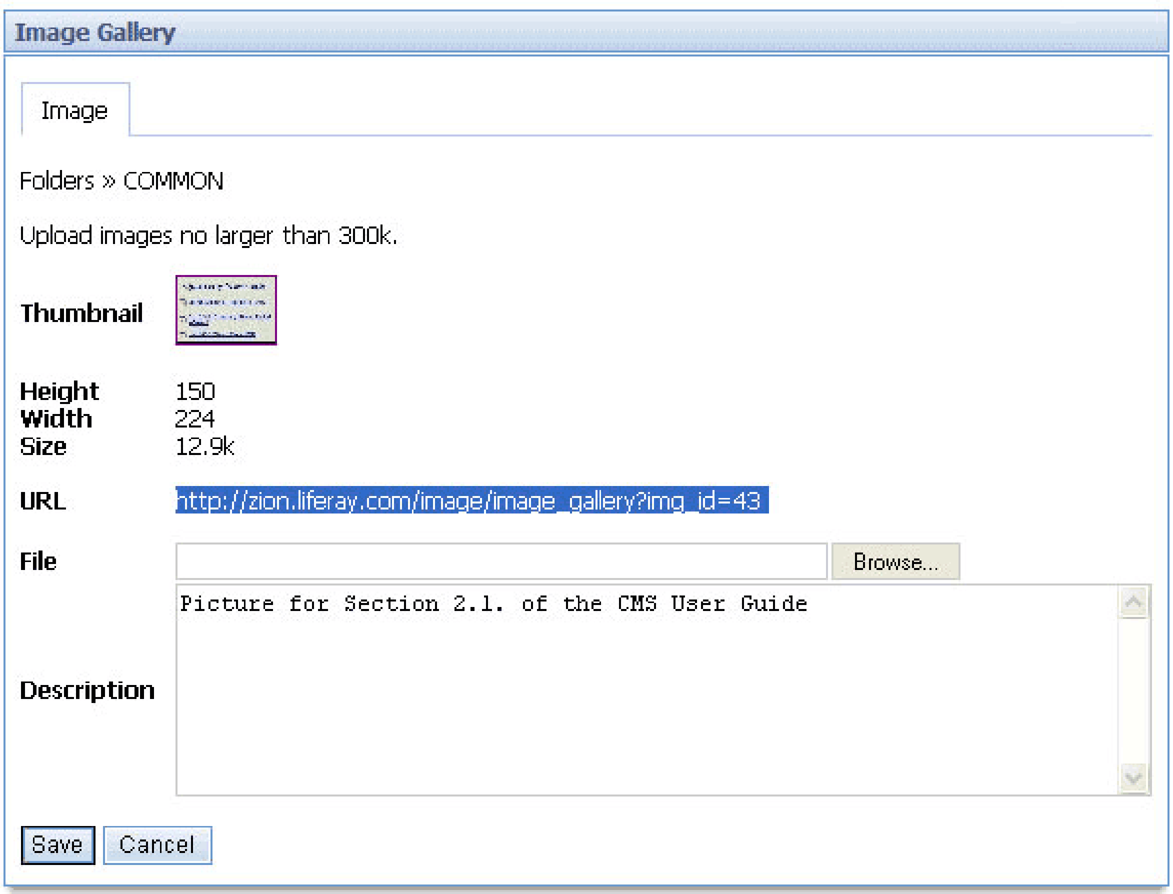
1. To add an image to the Image Gallery portlet, first add a folder by clicking the **Add Folder** button. This is similar to adding a folder to the Document Library, described in Section 2.1.1. This use case will show an Image Gallery with three folders already created: COMMON, HOME-INDEX, and PRODUCTS-LIFERAY.



2. We will now add an image to the COMMON folder. Clicking on COMMON takes you to the folder view. Click on **Add Image** to add a new image.



3. Here we add the image by pressing the **Browse** button and selecting the image to upload. Keep in mind that image size can be no larger than 300k. Give an easily identifiable description for the image, and then click **Save**.



4. After saving, you are returned to the folder in which you saved it in. As can be seen by the breadcrumb, the COMMON folder is displayed in the figure below. You can position your cursor over the image for a description, and click on the image for a full-size view.

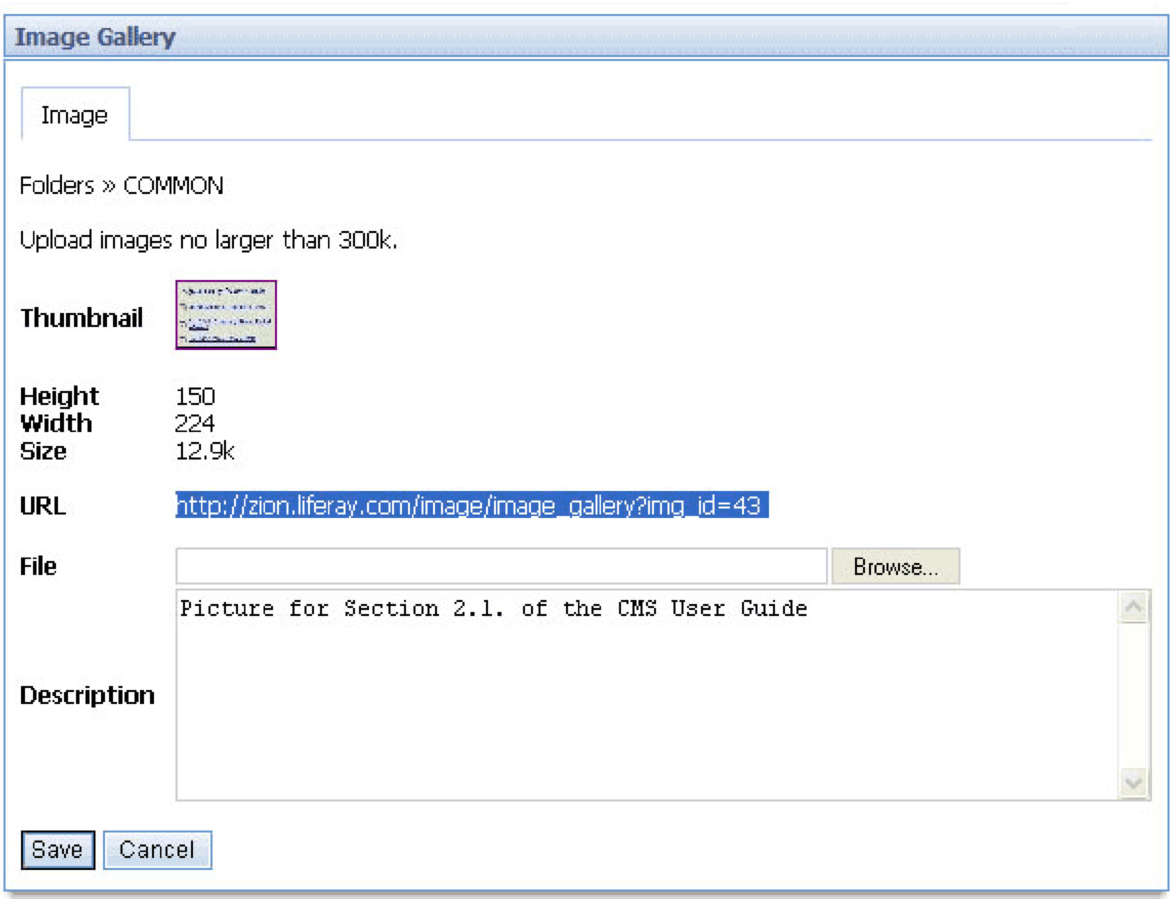
Referencing an Image

1. To reference an image in the Image Gallery, you must first find which folder the image is contained in. Using the same use case as in 2.2.1, we see that our image is located in the COMMON folder, as shown by the bread-crumb.

Thumbnail	Height	Width	Size
	1	1	0.0k
	14	8	0.5k
	10	10	0.1k
	262	1	0.1k
	1	262	0.8k
	22	106	0.6k
	22	106	0.6k
	22	84	0.6k
	22	162	0.9k
	22	55	0.5k
	22	124	0.8k
	150	224	12.9k

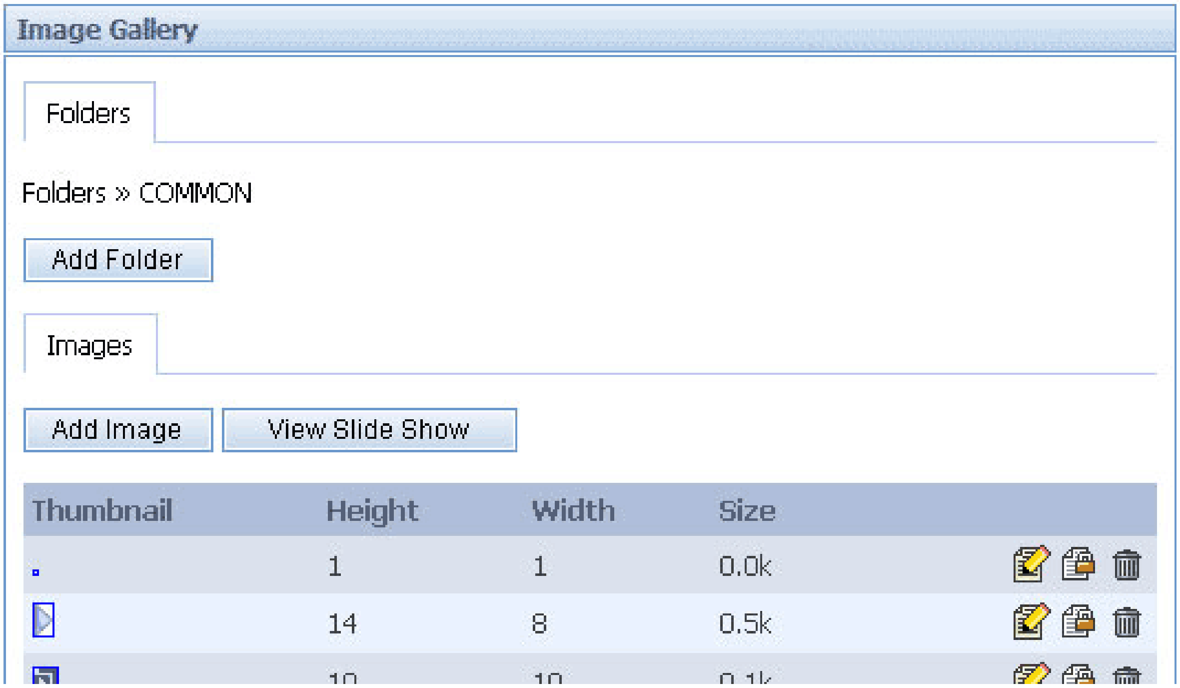
2. Click on the **Edit** icon ( ) to view the properties of the image. The URL is highlighted in the picture below.

   To reference this image in Journal Templates in this use case, you would type in @root_path@/image/image_gallery?img_id=43. Templates are described more completely in section 3.2.

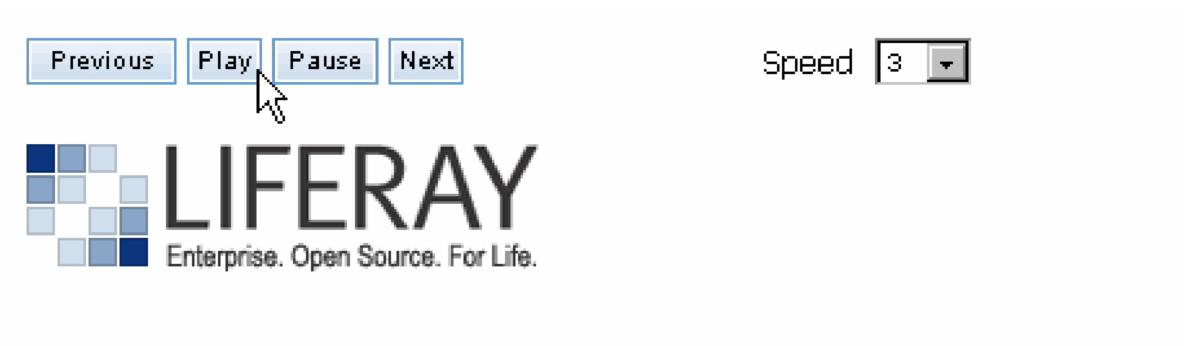


Viewing Image Slideshow

1. You can view all the images from a folder in a slideshow. To view the slideshow, click on the **View Slide Show** button in the folder you want to view.



2. A new window will appear showing a full-size image and a set of commands. It will repeatedly scroll through the images inside the folder chosen. To view images at your own pace, press **Pause** and press the **Next** or **Previous** buttons to change images. There is also a speed setting from 1 through 10, with 1 being the fastest and 10 the slowest. Press **Play** to resume the slideshow at the chosen speed.



Journal Portlet

The Journal portlet is used to create all CMS content. Without creating content through the Journal portlet, the Journal Articles and Journal Content portlets are useless. This portlet allows writers to easily edit content displayed on web pages without having to sort through complex code.

Definitions

Before getting into the details of how to use the Journal portlet, it is useful to understand structures, templates, and articles; they are the backbone of the Journal portlet's functionality.

- **Structures** define the type and number of content pieces (e.g. text, text area, images, selection lists, etc.)
- **Templates** determine how content pieces will be arranged or laid out
- **Articles** are where each content piece is populated with actual text and images

The point of a structure is to unify journal articles with the same numbers and types of items. For example, a Management Bio section of a website might have ten biographies, each requiring an image for the executive headshot, a text for the headline, and a text area for the main biography. A structure would be created with one image, one text, and one text area, each named accordingly. This allows writers to create the individual bios and other texts without needing to recreate the page structure for each biography.

Designers can create several templates for one structure to allow for a variety of presentations or they can give writers discretion in deciding the best layout.

All specific text and images are entered when a user adds or edits an article. This is also where a user chooses the layout based on the templates affiliated with a structure. Since multiple templates can be associated to a structure, the user can select the template that formats their article the way they want. Though articles normally have an associated structure and template (see SAMPLE-XSL-ARTICLE), it can also be a simple article without any associations (see SAMPLE-SIMPLE-ARTICLE).

Below is an example clarifying the definitions given above:

The structure in this case lists out the six content pieces:

- One text element named "headline" (1)
- Three text area elements named "body-text" (4), "caption-1" (2), and "caption-2" (6)
- Two image elements named "image-1" (3) and "image-2" (5)

The XSL template for this example would specify where the headline, text areas, and images should go. It places the captions to the sides of the images. Another template can be made for the same structure that has the captions below the images.

The article is the actual content that uses the template and structure. This particular article is about the alleged effects of professional football broadcasts on the behavior of the children who watch them. Two photos are uploaded and body text and headline are filled in. Another article may be generated using the same template and structure discussing the equipments used for fly fishing.

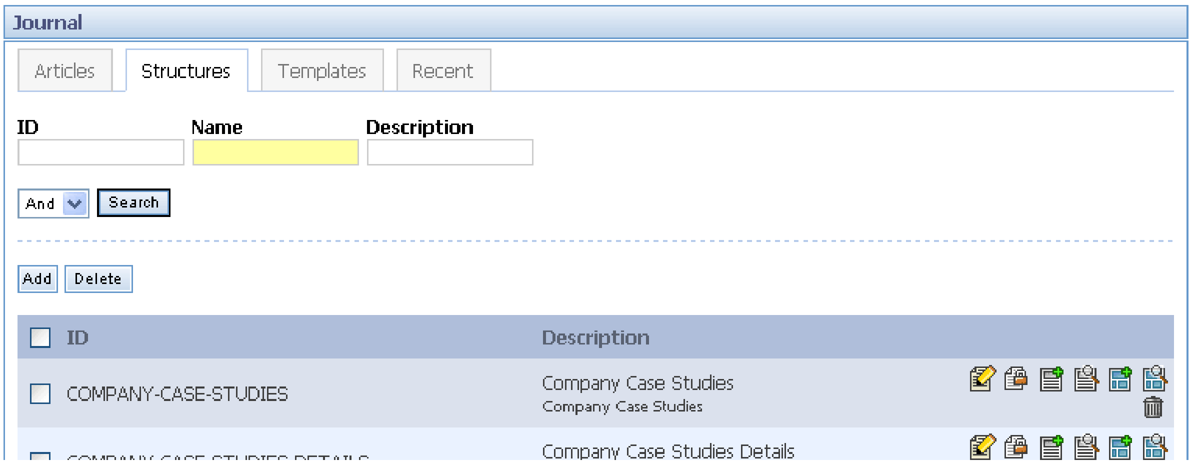
It should be noted that the proper order for creating an article from start to finish is:

1. Create the structure to set the fields that content will be entered.
2. Create the template to associate with the structure to define the layout of the content in question.
3. Create the article with the hard-coded content that will be displayed on the page, choosing the proper structure and template to be used for the article.

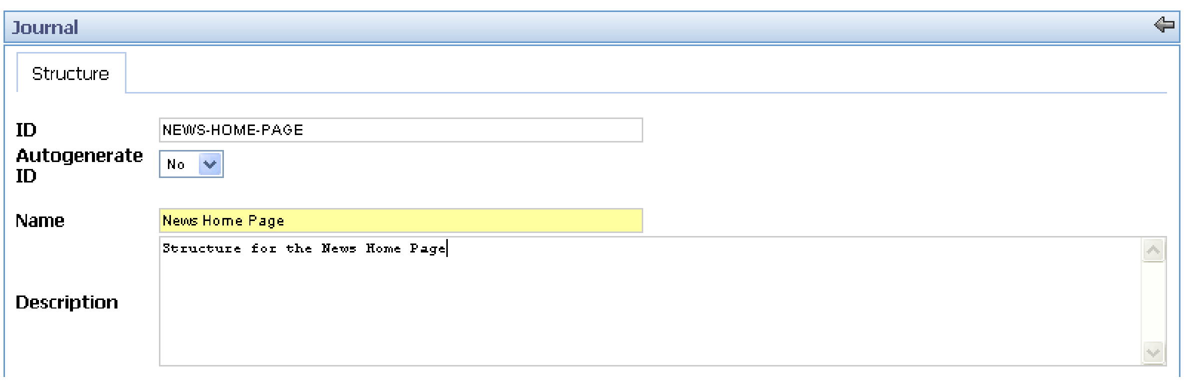
Structures

Structure Creation

1. To add a structure, first click on the **Structures** tab, then click on the **Add** button. The structure creation page will be displayed.

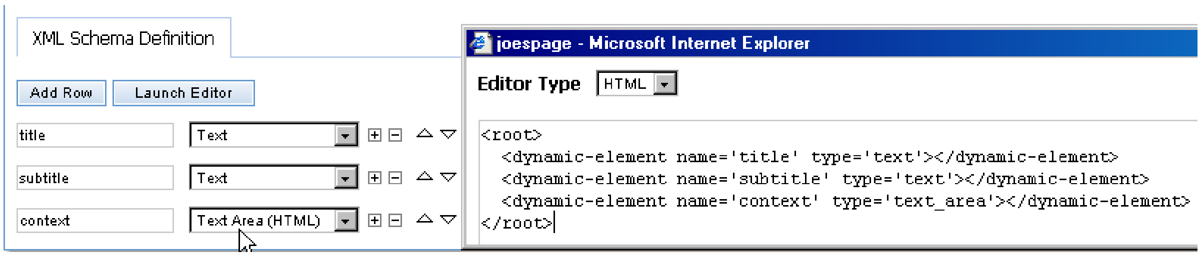


2. Give your structure an ID or have it auto-generate one. It is recommended that you choose your own ID so that the structure will be easier to identify when associating it with templates and articles. Please note that the ID must be unique. The convention is to separate words in the ID with a hyphen, e.g., “BASIC-STRUCTURE-NAME.# The structure ID can not be changed once your structure has been saved, so be sure that the ID is exactly how you would want it to appear.



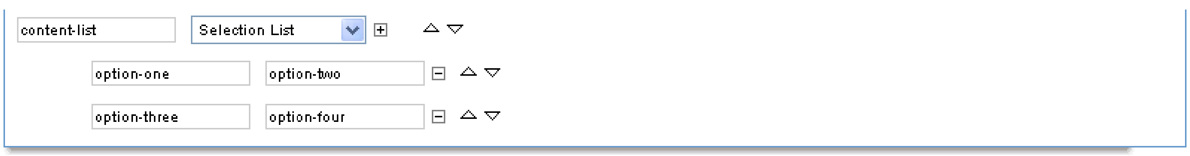
3. Give your structure a clear name and description because these fields are also used for identification of the structure.

4. To start adding fields to the structure, click the **Add Row** button. This will show a new field where you can enter a name and a content type for this field (image, text, boolean flag, etc.). Those comfortable with XML or HTML can edit the XSL directly by clicking **Launch Editor**. Both methods of adding/editing elements will work, and both can be used in the same session. One simple approach is to add a few elements using the GUI and then to edit the XML directly (which will contain the syntax for the already added elements and can be copy-pasted).



Keep in mind that all names of fields must be one word—a description such as “Content Title# would not be allowed. To name a field using multiple words, put a dash in between words to prevent confusion, such as “content-title.#

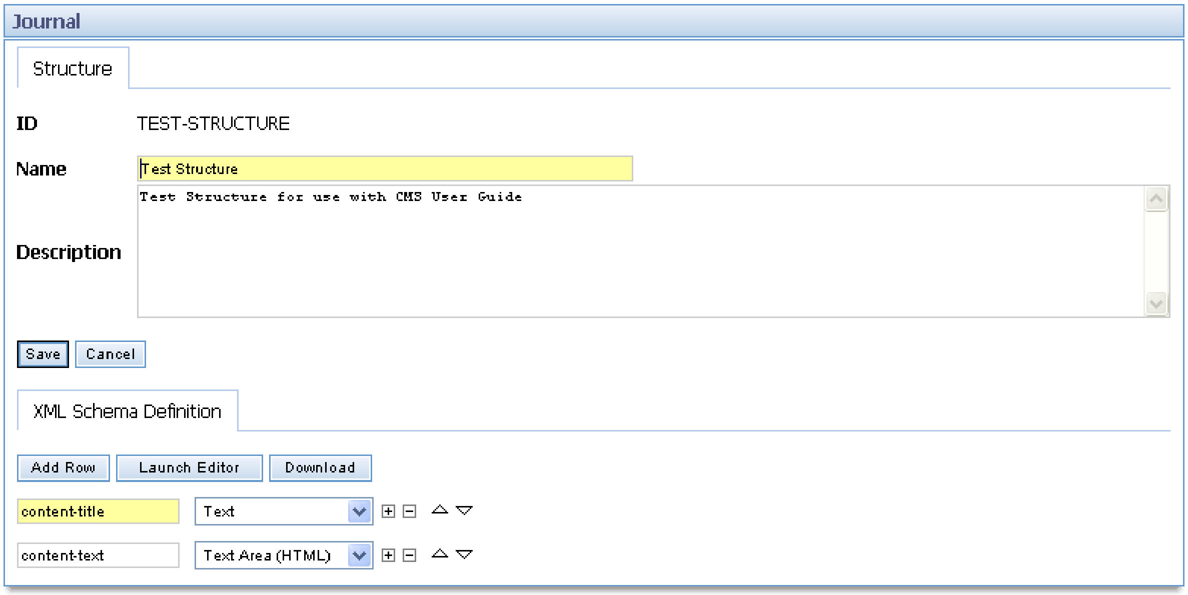
5. From the Selection List and Multi-Selection List, press the  button to add extra options to the lists, and use the  and  buttons to move the options up and down on the display for the article.



6. Once all the fields have been added to the structure, click the **Save** button, located above the XML Schema Defintion tab. If no error messages appear, the structure has now been created and can be associated to templates.

Editing Structures

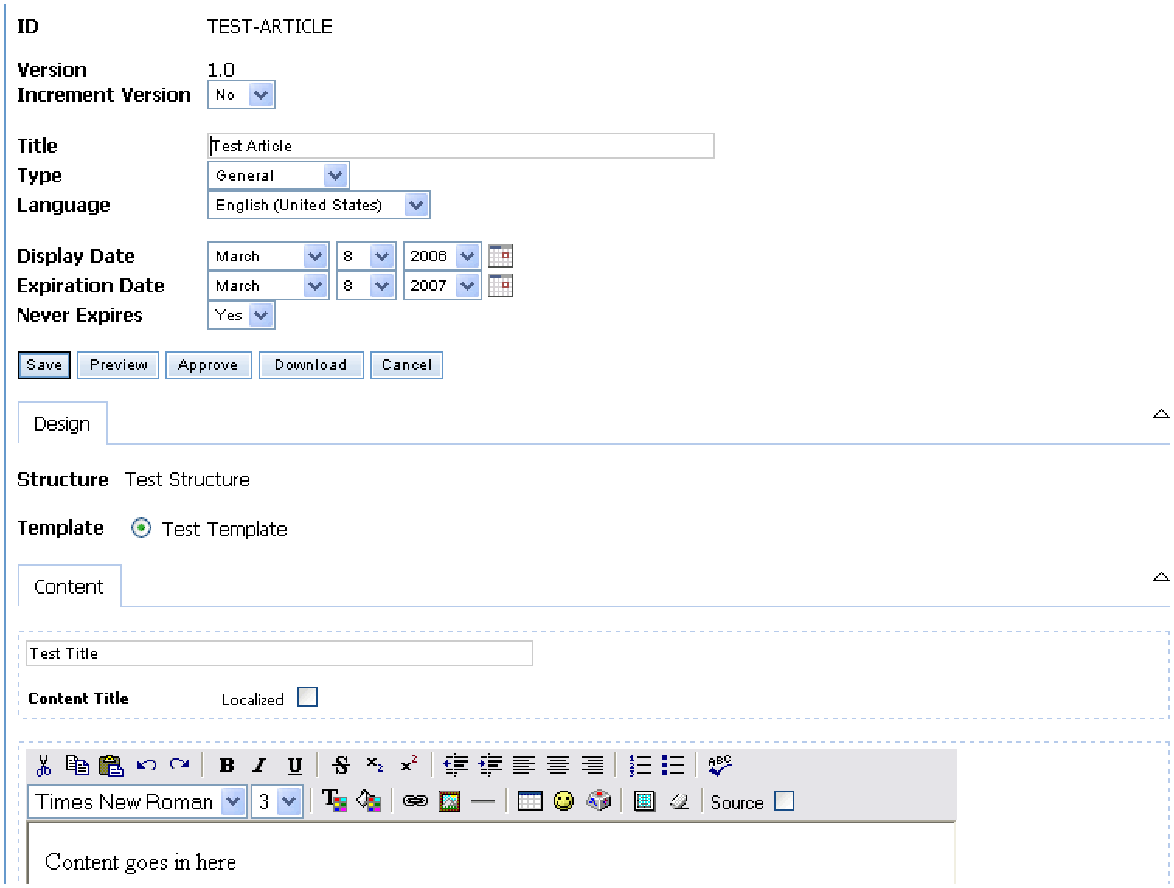
1. To edit an existing structure, go to the Structures tab. There you will see a list of existing structures with pagination and an area to search for structures by ID, name, and/or description. You can use either method to locate the structure you wish to edit. Before editing the actual structure, it is advisable to view the associated articles and templates because they can potentially be affected by any changes made to your structure. You can view associated articles () and templates () by clicking on their respective icons. When you are done viewing associated articles and templates, find the structure again using either method above. Click on the Structure ID, description, or the **Edit** icon () to display the editing screen, shown below.



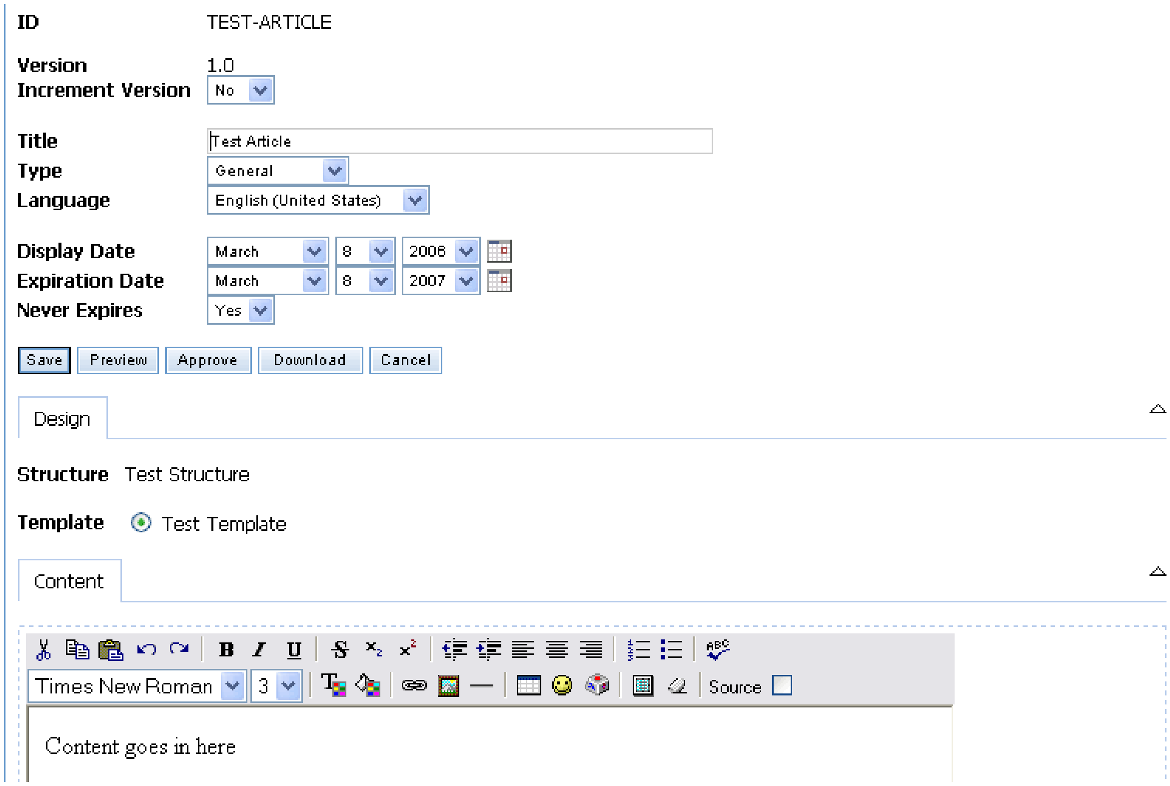
In the edit screen, you can edit anything in the structure except for the structure ID, which can not be changed once the structure has been created.

2. Editing the name and description will not affect other features of the Journal portlet, but adding, deleting, and modifying fields will affect the templates and articles that are associated with the structure. It is advisable to backup the current XML file first by clicking the **Download** button so that it will be easy to revert to your old structure if necessary.

   If you add fields, the articles associated will have extra fields for additional content. If you delete fields, associated content and articles will be deleted. For example, notice that the structure above has a “content-title# field. Now look at the article below that uses a structure that has something in that field.



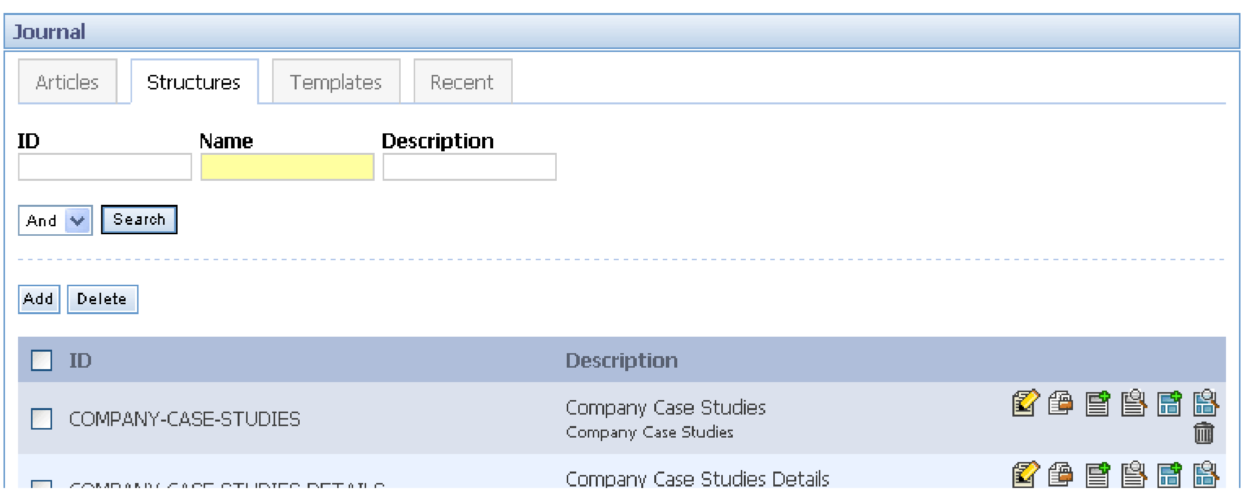
When you delete the field from the structure (content title in this case), either by deleting the row or deleting it through the editor, the associated article will not show the field. See figure below.



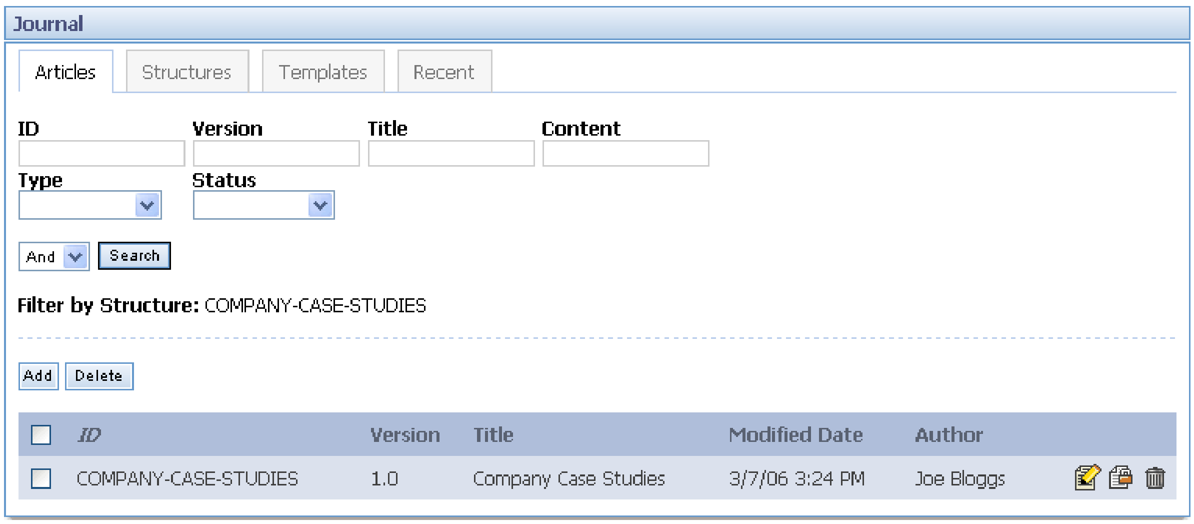
So when you delete fields, be certain that associated articles no longer need those fields. This also applies if you rename a field; there will be a new field inside the article with that name and field type, but the content that was in the old field will be gone. For an article to display properly, the template layout must also be changed when fields are added or modified.

3. When all changes have been made, click the **Save** button to save your changes.

Structure Deletion

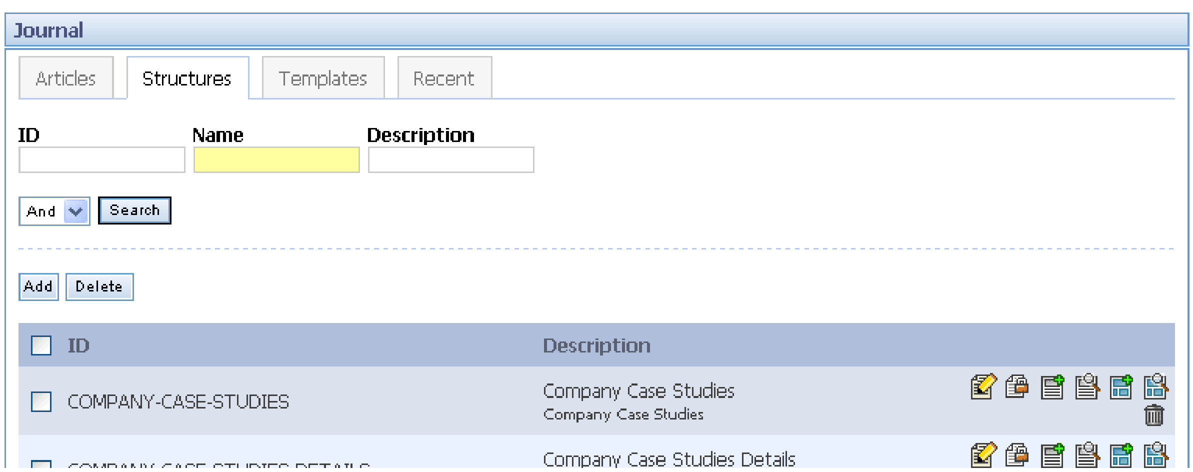


1. To delete a structure, you must first delete all articles and disassociate or delete all templates associated with that structure. First search for the structure you wish to delete, such as COMPANY-CASE-STUDIES, using the same method as step 1 of section 3.2.2. To delete all articles, first click the **View Articles** icon ( ), which takes you to a view of all associated articles, shown below.

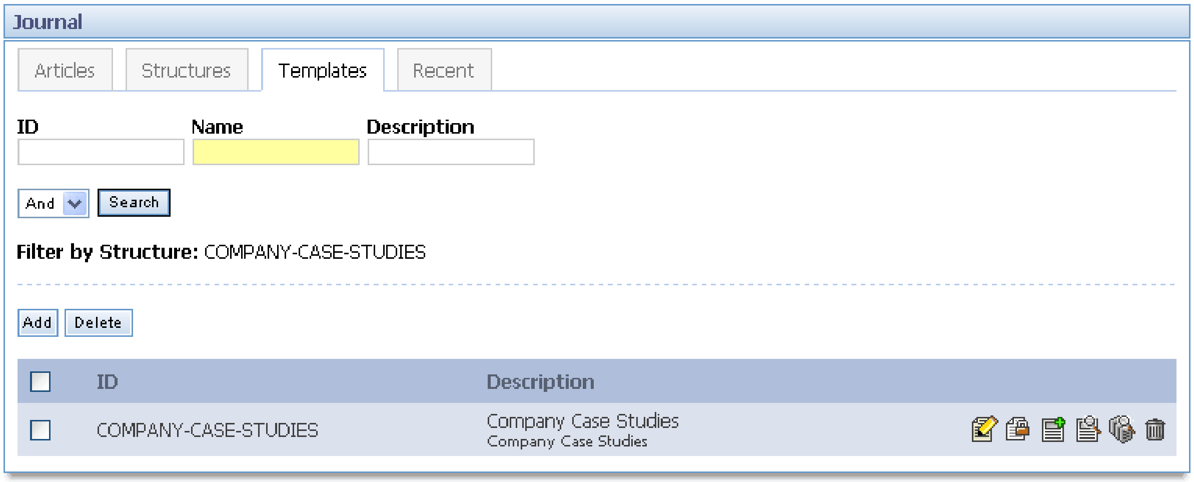


2. The screen above shows what filter was used to find the articles. Edit or delete all of these articles. To delete, click the **Delete** icon ( ) next to the article you wish to delete.

3. Once all articles have been edited or deleted, go back to the Structures tab and find the structure you wish to delete. Click on the **View Templates** icon ( ) to take you to a view of all associated templates.



4. Edit or delete all of these templates. To delete, click the **Delete** icon ( ) next to the template you wish to delete. To edit, begin by clicking the **Edit** icon ( ) next to each template. Inside the edit template screen, change the structure by clicking the **Select** button next to the Structure field so that it no longer uses the structure you wish to delete. Click the **Save** button when you have selected a new structure for the template to be associated with.

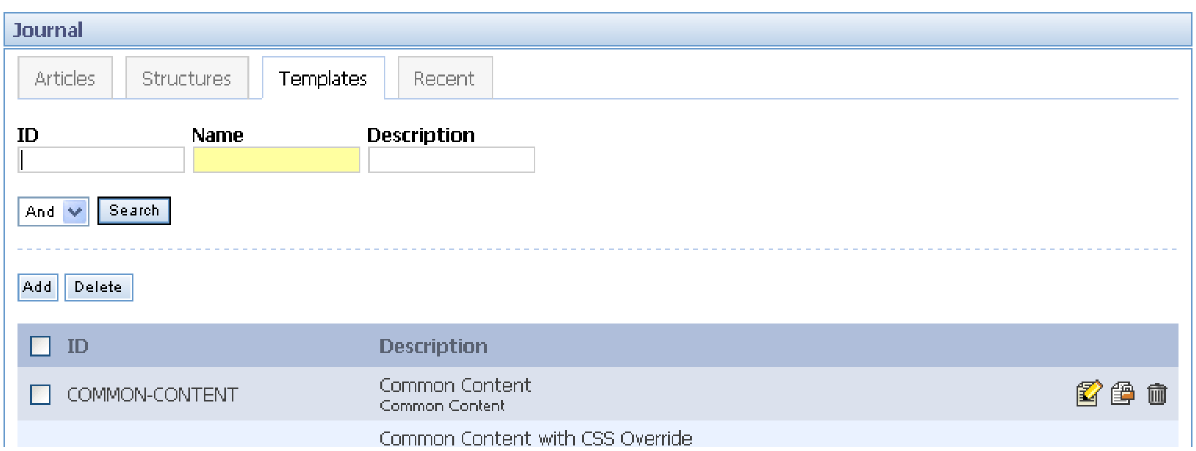


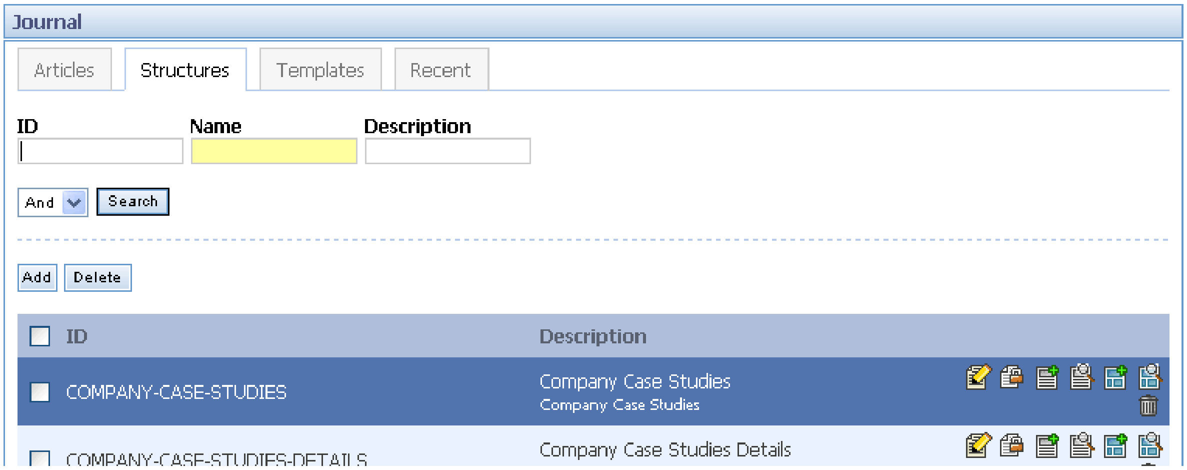
5. Once all articles and templates have been disassociated from the structure, search for the structure once again in the **Structures** tab, then click the **Delete** icon ( ) next to that structure.

Templates

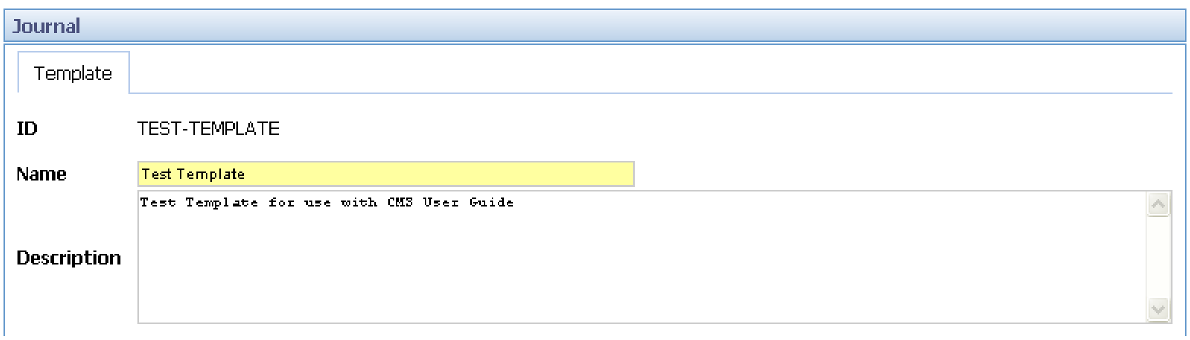
Template Creation

1. To add a template, first click on the **Templates** tab, and then click the **Add** button. If you already know which structure this template is associated with, you can create the template by clicking the **Structures** tab, finding the associated structure, and then clicking the **Add Template** icon ( ). Both examples are shown below.



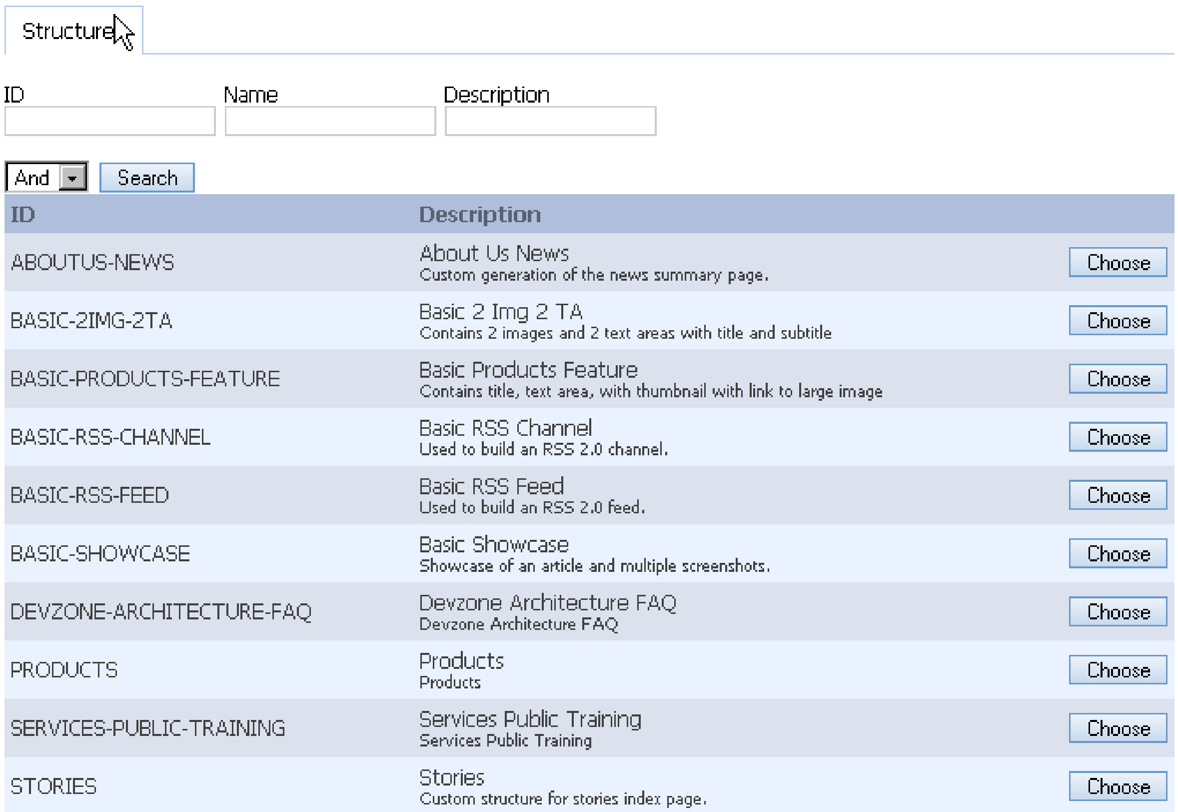


2. The template creation page appears. Give your template an ID or have it auto-generate one. Refer to step 2 of section 3.2.1 for template ID recommendations. Template IDs must be unique.

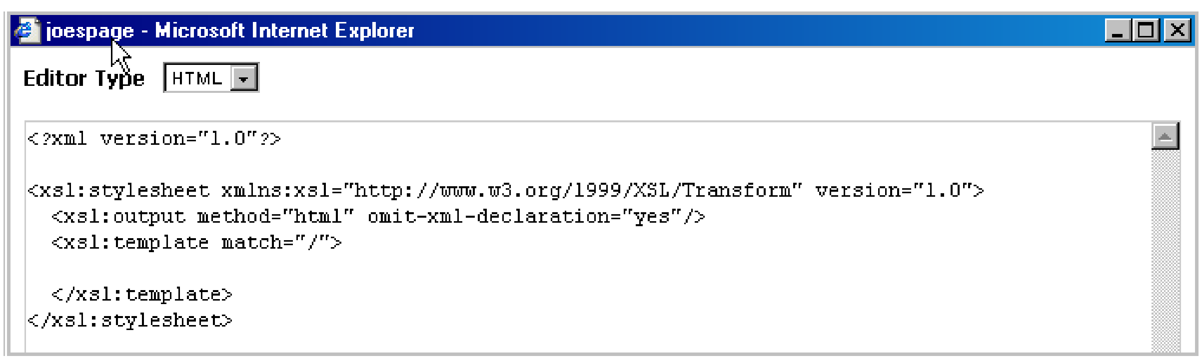


Give your template a clear name and description because these fields are also used for identification of the template.

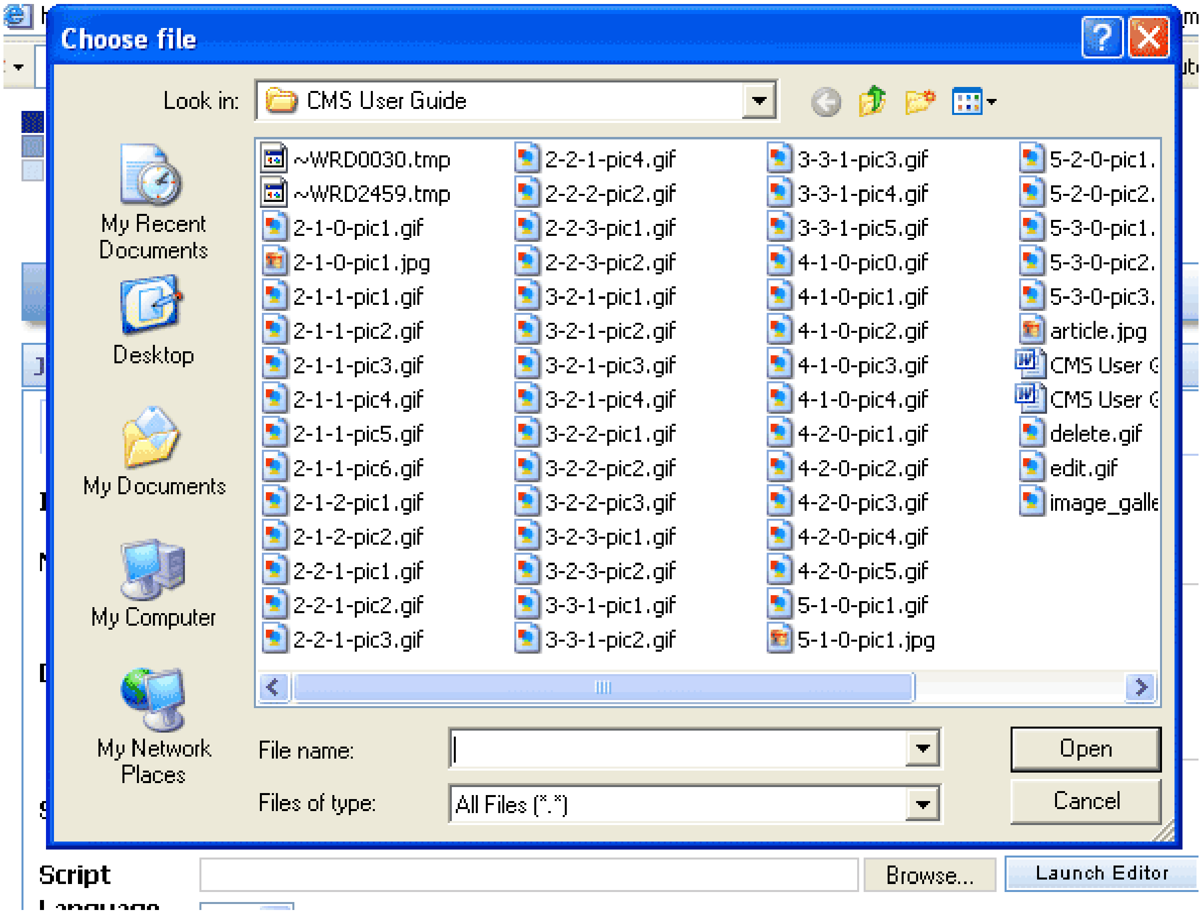
3. Since articles have to select a structure before choosing a template (further described in section 3.4.1.), all created templates have to be associated with a structure. If you have already associated this template to a structure, the structure name will appear in the Structure field. Otherwise, click the **Select** button to find the structure that this template will be associated with. This will open up a screen with all the structures. Click the **Choose** button next to the structure that you wish to associate this template with.



4. To edit the actual template layout content, you can use one of two methods. To start a completely new template, click the **Launch Editor** button to open up the editor shown below.



If you have an existing template on your local machine, click the **Browse** button to search for the file, and load that file as the code for this template.



Note that you can choose the template to be in either XSL or VM format, so a working knowledge of one of these is required for creating templates. One way to make simple templates is to look at the existing templates that Liferay provides out-of-the-box and follow the syntax. If the template is loaded from your local machine, make sure you choose the correct language type in the menu.

5. If you want a small image to represent the template in the description field, you can link the image URL or upload it from your local machine. Be sure to select **Yes** in the menu in the “Use Small Image# field.

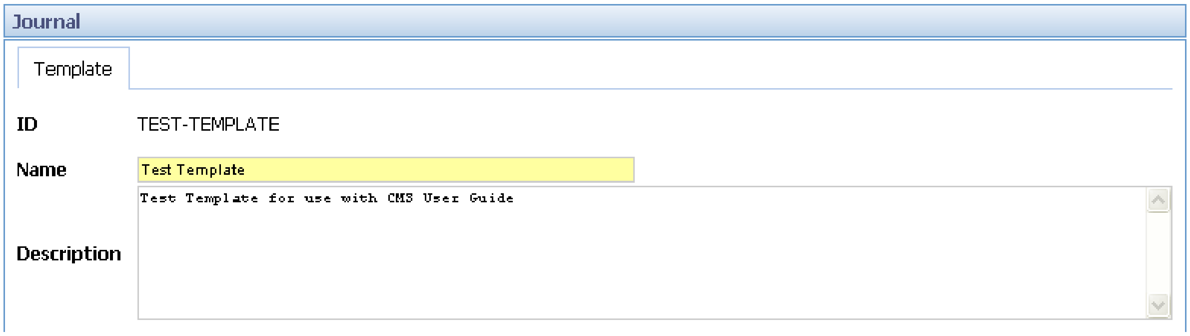
6. Click **Save** when you are finished creating your template. If no error messages appear, the template has been created and can be used as layouts for articles.

Editing Templates

1. To edit an existing template, go to the **Templates** tab. You will see a list of existing templates with pagination and an area to search for templates by ID, name, and/or description. You can use either method to locate the template you want to edit. Before editing the actual template, it is advisable to view the associated articles because their layout will be affected by any changes made to your structure. After editing the template, you can view these articles with the new template layout. You can click on the **View Articles** icon () to view associated articles. When you are done viewing associated articles, find the template again using either method

) to enter the editing screen, shown below.

2. In the edit screen, you can edit anything in the template except for the template ID, which can not be changed once the template has been created.

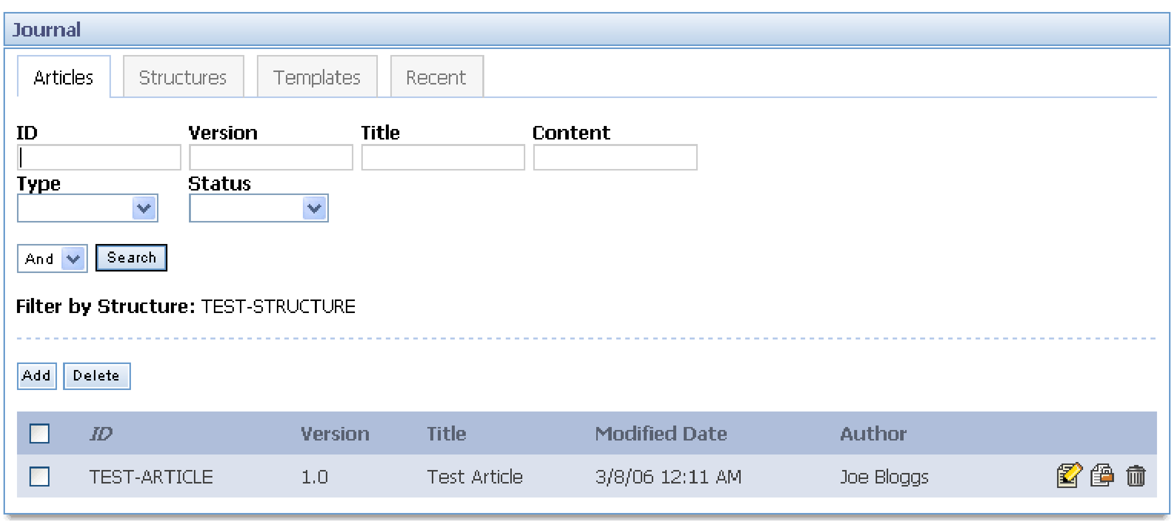


3. Editing the name and description will not affect any other features of the Journal portlet but modifying the script will affect the articles that are associated with the template. It is advisable to backup the current XSL or VM file by clicking the **Download** button so that it will be easy to revert to your old template script if necessary. To prevent unexpected behavior in the design, it is advised that only users with good working knowledge of XSL or VM modify these scripts.

4. When all changes to the template have been made, click the **Save** button to save your changes.

Template Deletion

1. To delete a template, you must first disassociate or delete all articles associated with that template. First search for the template you wish to delete using the same instructions from step 1 of section 3.3.2. To disassociate/delete all the articles, click the **View Articles** icon ( ). A view of all associated articles will be displayed.



2. To delete an article, click the **Delete** icon ( ) next to the article you wish to delete. To edit an article, begin

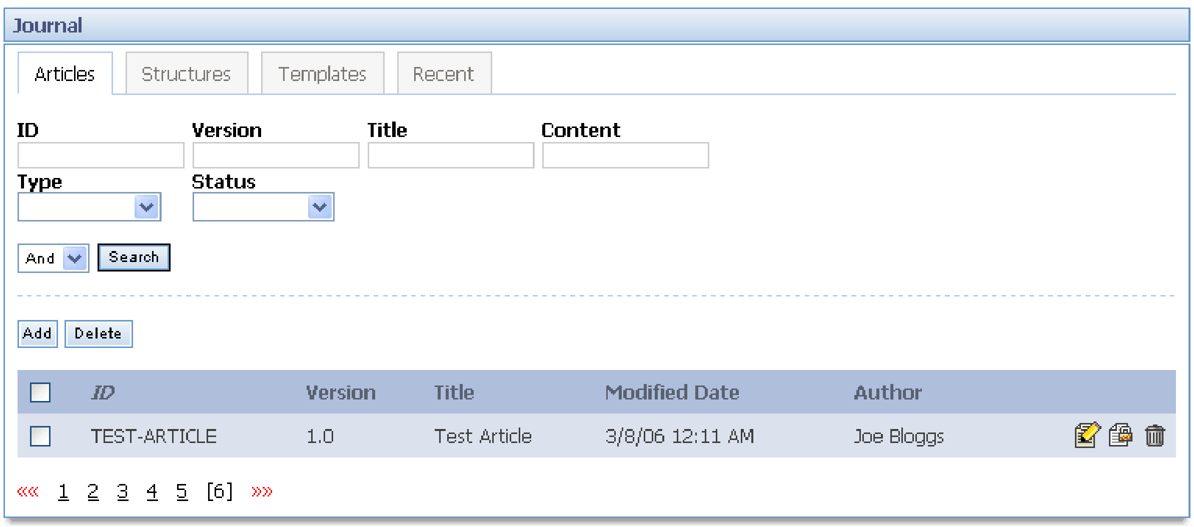
by clicking the **Edit** icon ( ) next to each article. Inside the edit article screen, change the template by using radio buttons. If there are no other templates associated with the structure used, you must either create a new template for that structure or delete this article. Click the **Save** button when you have selected a new template for the associating article.

3. Once all articles have been disassociated from the template, search for the template again in the Templates tab, then click the **Delete** icon ( ) next to that template.

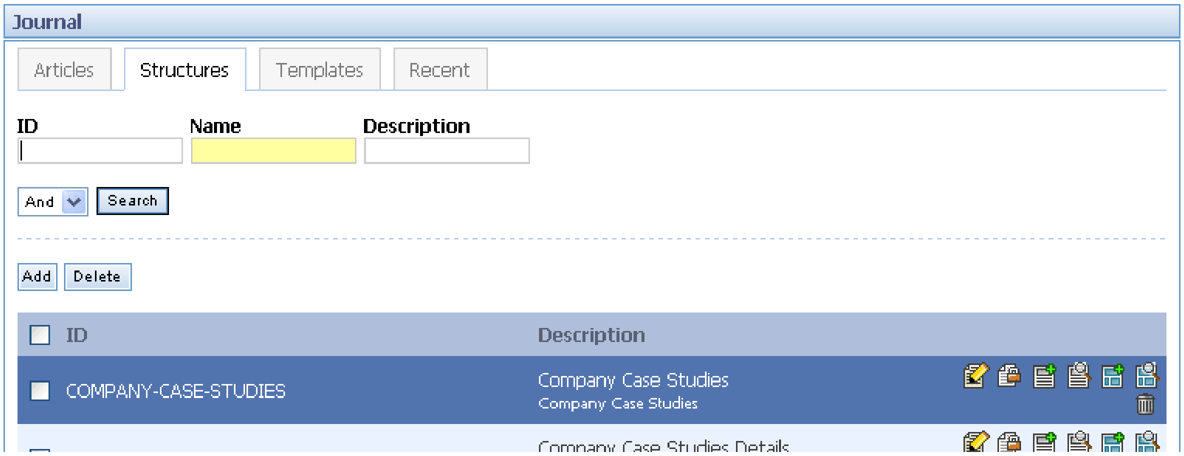
Articles

Article Creation

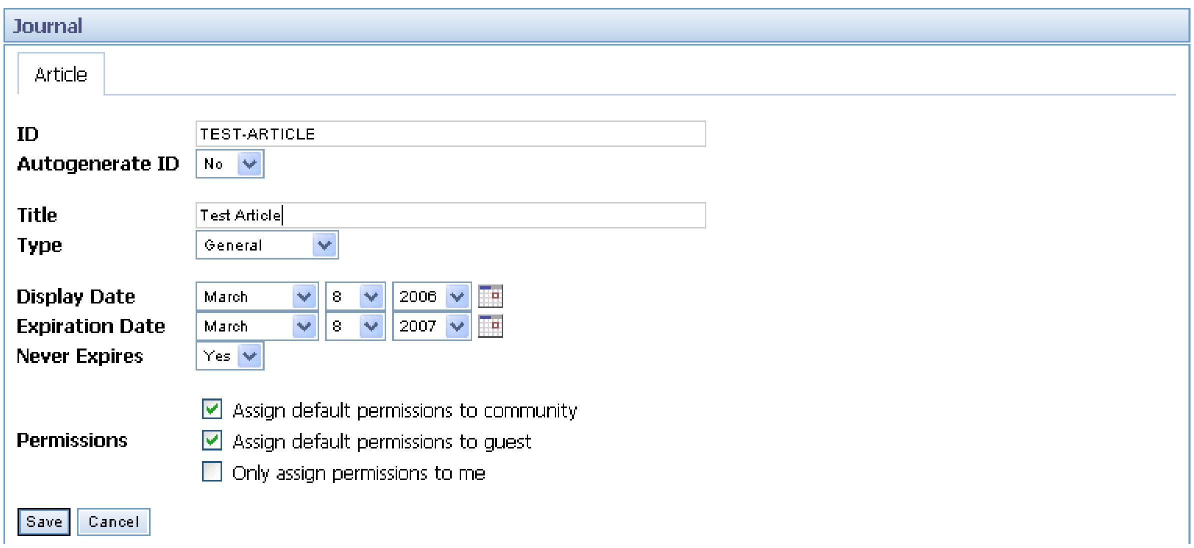
1. To add an article, click on the **Articles** tab, and then click the **Add** button.



2. If you already know which structure or template this article is associated with, you can create the article by going to the Structures or Templates tab. Find the corresponding structure or template, and click the **Add Article** icon ( ).



3. The article creation page appears as shown below. Give your article an ID or have it auto-generate one. Refer to step 2 of section 3.2.1. for article ID recommendations. Article IDs must be unique.



4. Give your article a title. This field is also used for easier identification of the article, so a clear, concise explanation is recommended.

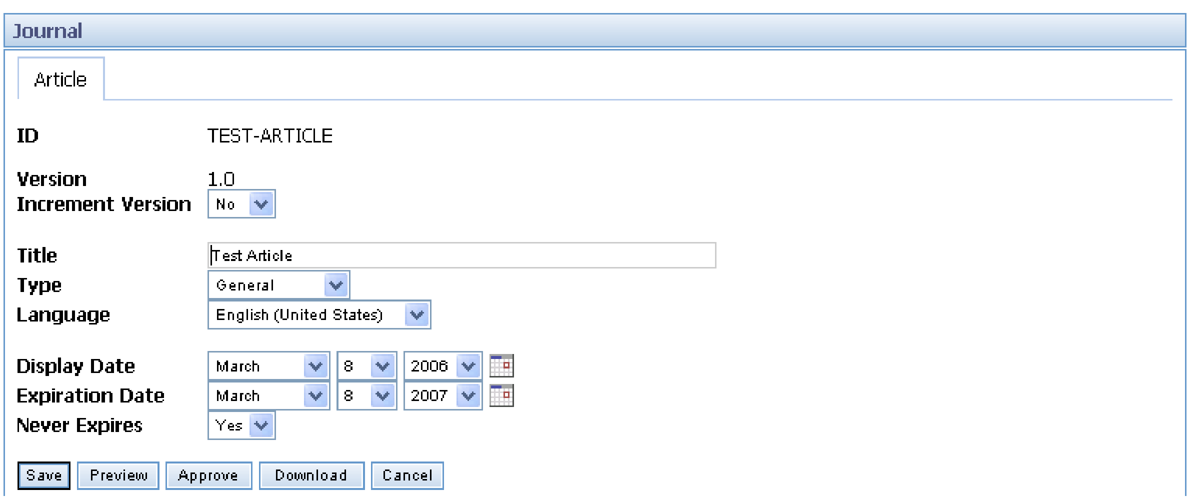
5. In the article tab screen shown above, choose the **Type** category that the article will reside in. This will help make it easier for users to make manual searches of articles and organize articles.

6. Next, pick a display and expiration date. The default setting does not set an expiration date.

7. Next, choose the structure and template that this article will be associated with. If none are selected, the article will be a simple article by default, and the display will be what is written in the content box. If you added the article through the structure or template tab, there will already be a structure and template choices, which you can further edit if you choose. To choose the structure, click the **Select** button next to the Structure field. If you have a pop-up blocker installed, you may need to turn it off because it can prevent the Structure list from appearing.

8. Once the structure and template has been chosen (if at all) the content fields will show up, and you can fill in the content in the fields given. Once all the content has been filled out, click the **Save** button to create the article.

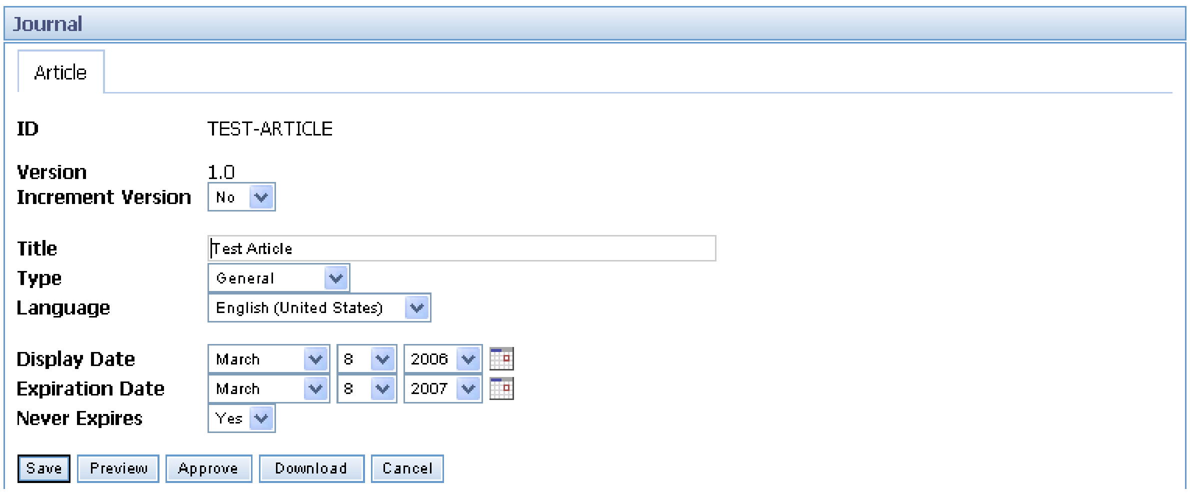
9. Once you save the article, it will return you to the main Articles tab. To approve the article and allow the Journal Content article to display it, search for the article you just created. Click the **Edit** icon ( ) for that article, and then click the **Approve** button.



Editing Articles

1. To edit an existing article, go to the **Articles** tab. You will see a list of all existing articles with pagination and an area to search for articles by ID, Version, Title, Content, Type, and/or Status. You can use any of these methods to locate the article you want to edit. When you find the article , you can either click on the article ID or click on the fields to view a preview of the article.

2. Click on the **Edit** icon () to enter the editing screen. In this screen you can edit anything in the article except for the article ID, which can not be changed once the article has been created. You can choose to increment the version every time you edit the article to help all users see how often an article has been changed. If you feel that the changes you are making are very minor, you can choose not to increment it. Note that if you change the expiration date before the current date, you will no longer be able to select that article for use in the Journal Content portlet.



3. When you are done editing the changes, click the **Save** button to finalize any changes you have made. To preview your changes, search for the article again and click on the article, or go to the article edit screen and click the **Preview** button, shown in the picture above.

Article Deletion

1. To delete an article, search for the article as instructed in step 1 of section 3.4.2. Once you have found the article, click the **Delete** icon ().

2. If you do not wish to delete the article but do not want the article to be available for display through the Journal Content portlet, you can edit the expiration date of the article so that it is set to before today's date. Refer to section 3.4.2. to edit the expiration date of an article.

Journal Display Portlets

The Journal Articles portlet and the Journal Content portlet are used to display content created through the Journal portlet. While the Journal portlet creates all content used in CMS, it is the Journal Articles and Journal Content portlet that actually display content to portal users and guests.

Journal Articles Portlet

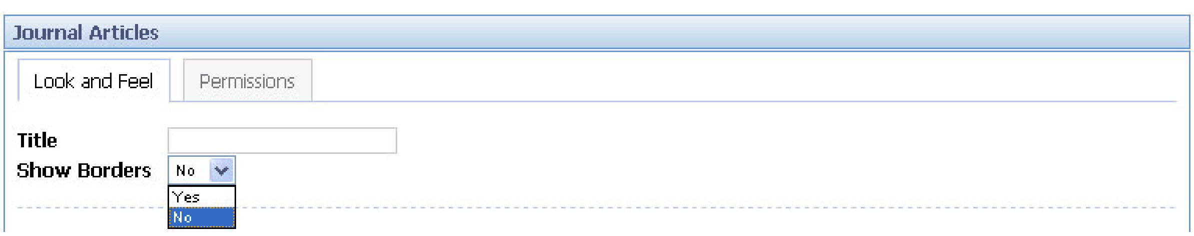
The Journal Articles portlet allows a user to be shown articles that have been published within a particular Article Type. This may be Press Releases, Financial Reports, or a Software Version History. As long as there are published articles that can be read, a user can easily access them through the Journal Article portlet. Refer to the following example:

Anytime a new Press Release comes out, the Journal Articles portlet will dynamically show the article in the list. The user can simply click on the title to load the article in a new window.

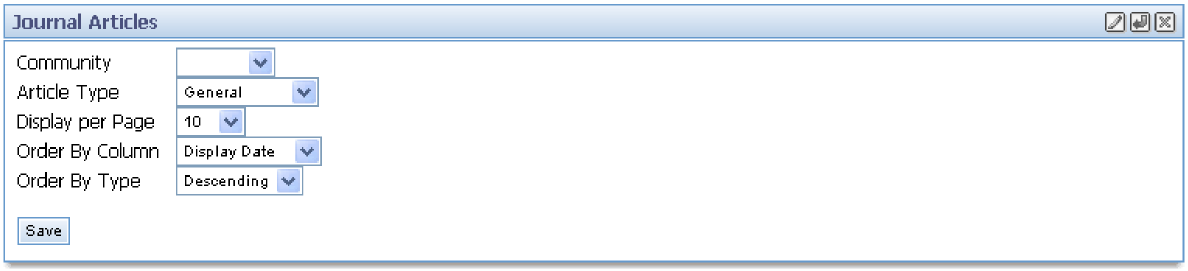
To use this portlet (assuming it has been added to the current layout):

1. Click the **Configuration** link ( ) to modify the properties of the portlet. (If portlet borders are not showing, there will be a **Configuration** link at the top of the portlet).

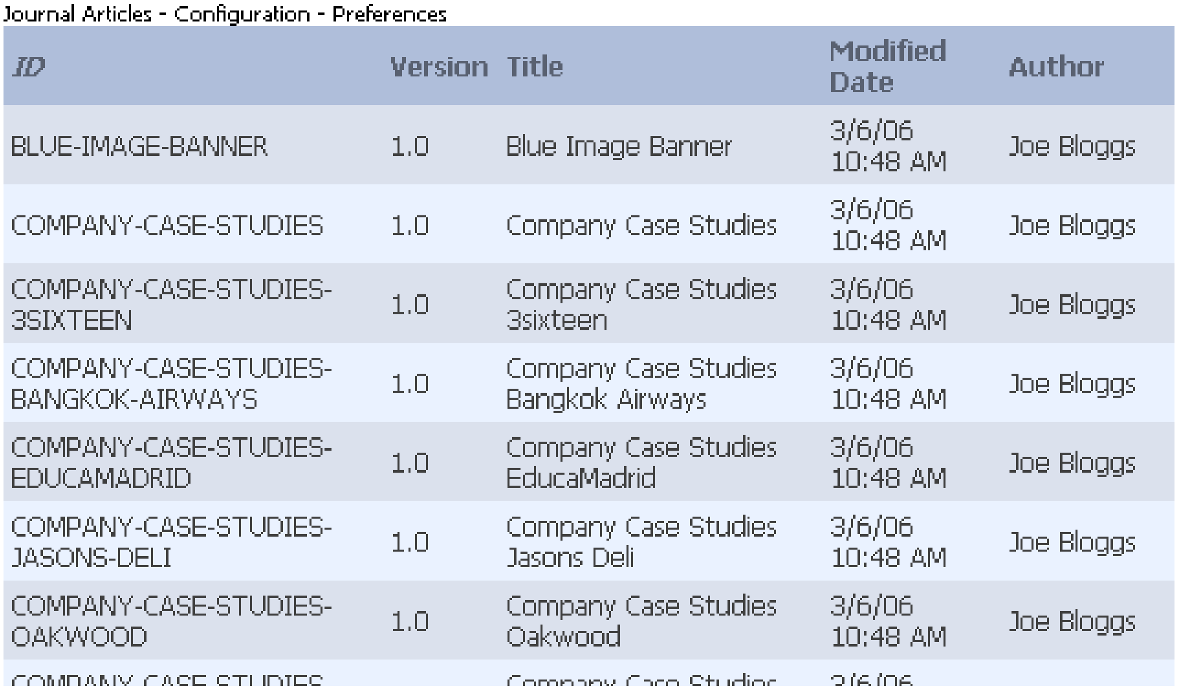
2. You can select whether to Show Portlet Borders or enter an optional Portlet Title. Note that the title will only show up if the borders are displayed. Save when you are satisfied with the configurations.



3. To choose the list of articles to display, go back to the main view ( ), and then click on the **Preferences** icon ( ). The above screen will be displayed.



4. Pick the Community, Article Type, Display per Page, Order By Column, and Order By Type. Click **Save** when finished, then leave the prefrences page ( ) to view the portlet, shown below.

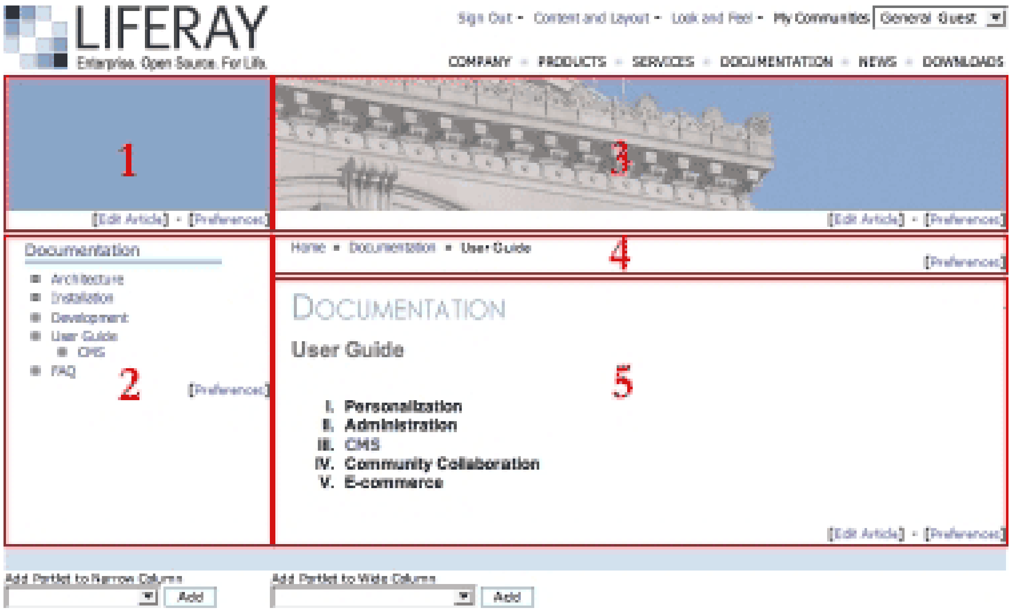

Journal Articles - Configuration - Preferences

ID	Version	Title	Modified Date	Author
BLUE-IMAGE-BANNER	1.0	Blue Image Banner	3/6/06 10:48 AM	Joe Bloggs
COMPANY-CASE-STUDIES	1.0	Company Case Studies	3/6/06 10:48 AM	Joe Bloggs
COMPANY-CASE-STUDIES-3SIXTEEN	1.0	Company Case Studies 3sixteen	3/6/06 10:48 AM	Joe Bloggs
COMPANY-CASE-STUDIES-BANGKOK-AIRWAYS	1.0	Company Case Studies Bangkok Airways	3/6/06 10:48 AM	Joe Bloggs
COMPANY-CASE-STUDIES-EDUCAMADRID	1.0	Company Case Studies EducaMadrid	3/6/06 10:48 AM	Joe Bloggs
COMPANY-CASE-STUDIES-JASONS-DELI	1.0	Company Case Studies Jasons Deli	3/6/06 10:48 AM	Joe Bloggs
COMPANY-CASE-STUDIES-OAKWOOD	1.0	Company Case Studies Oakwood	3/6/06 10:48 AM	Joe Bloggs
COMPANY-CASE-STUDIES		Company Case Studies	3/6/06	

Journal Content Portlet

The Journal Content portlet enables a Journal article to be requested and displayed on the portal page. You can easily build and lay out an entire public website with portlets. In fact, Liferay's own website [http://www.liferay.com] has been built leveraging this new technology.

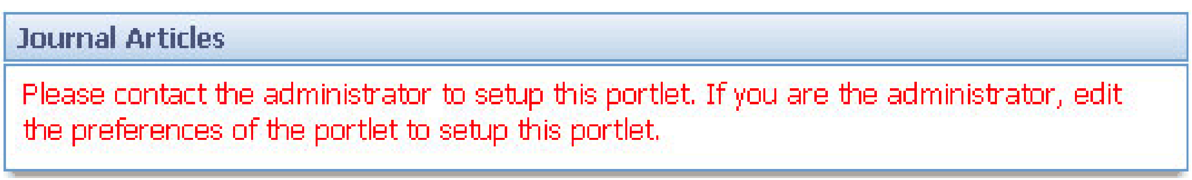
Shown below are five portlets highlighted in red. Portlet 2 is a Navigation portlet and portlet 4 is a Breadcrumb portlet. Both of those portlets are explained in more detail in Chapter 5. Portlets 1, 3, and 5 are Journal Content portlets that contain static Journal articles.



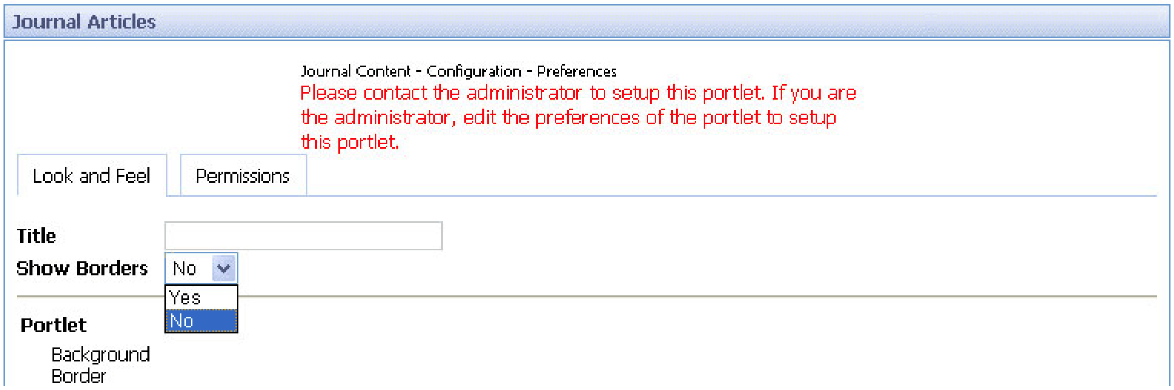
You can integrate the power of function-rich portlets with the more static information of a Journal article. A company may have an "Investors" page on their website. In one column you may see the Stocks portlet and in another column a Journal Content portlet. The Stocks portlet can display the company's ticker symbol with stock price and the Journal Content portlet can display static content of the latest financial reports. A mortgage company may want to have a Loan Calculator portlet right next to a Journal Content portlet showing an article with current rates and plans.

To use a Journal Content portlet (assuming it has been added to the current layout):

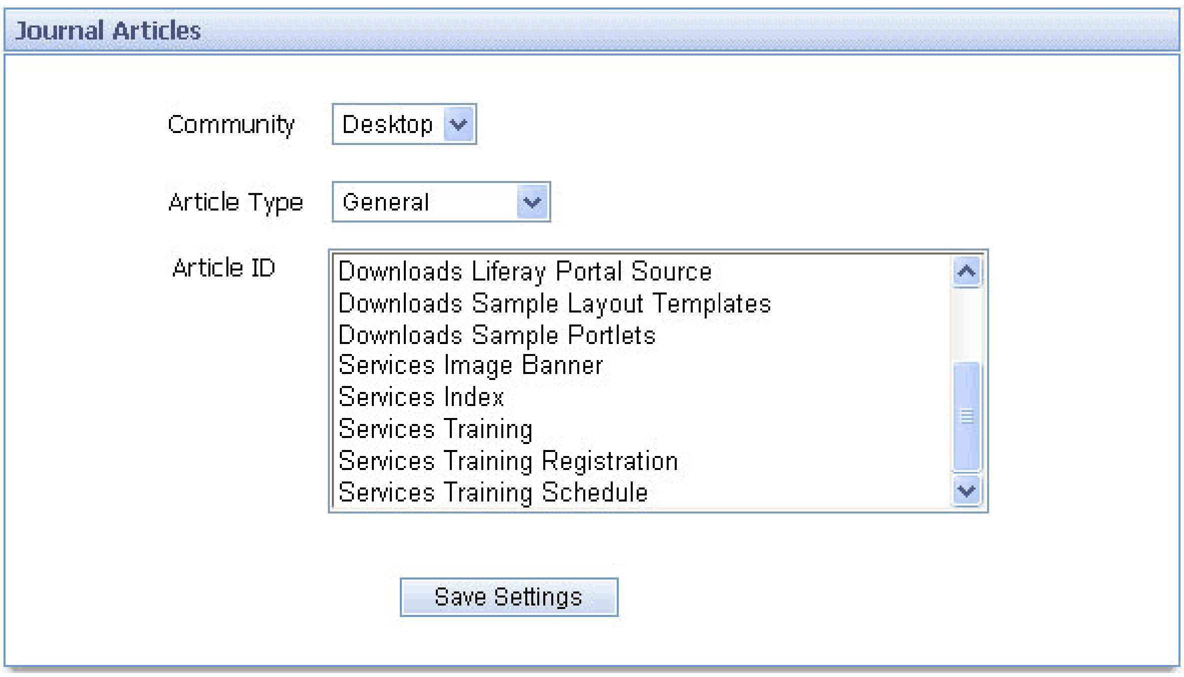
1. Click the **Configuration** icon ( ) to modify the properties of the portlet. (If portlet borders are not showing, there will be a **Configuration** link at the top right of the portlet).



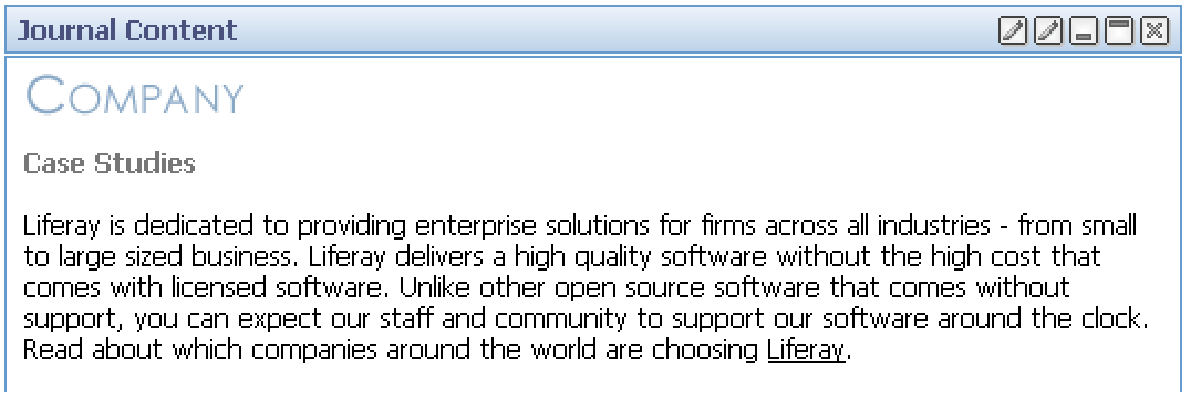
2. You can select whether to Show Portlet Borders or enter an optional Portlet Title. Note that the title will only show up if the borders are displayed. Click **Save** when you are satisfied with the configurations.



3. To display the actual content of the article, click on the **Setup** tab. The screen below will be displayed.



4. From the drop-down menus, select the Community, Article Type, and Article ID of the Journal article that you want to use. Once this is complete, click **Save**, and then exit the setup section ( ). This will return you to the page that the Journal Content portlet was added, with the new Journal Article displayed. Refer to figure below.

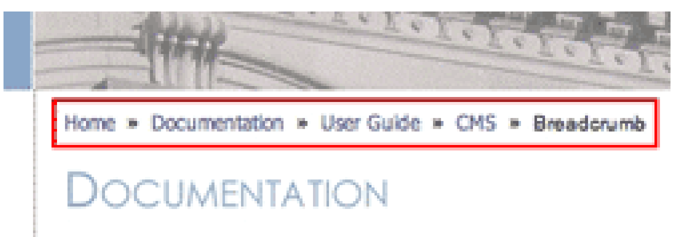


Other CMS Features

There are other portlets that utilize CMS features. These portlets work together with CMS to add extra functionality to your portal.

Breadcrumb Portlet

The Breadcrumb navigation portlet shows the location of the current page in context of the site. This form of navigation helps the user visualize the structure of the site and quickly move from a page that is very specific to a broader grouping of information. The Breadcrumb navigation for this documentation page looks like this:

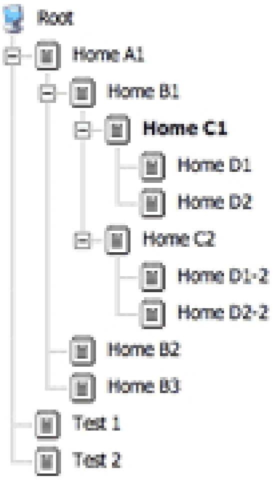


Simply add the Breadcrumb portlet to each page you want it on. The portlet will determine its place in the structure of the website and dynamically build its proper path.

Navigation Portlet

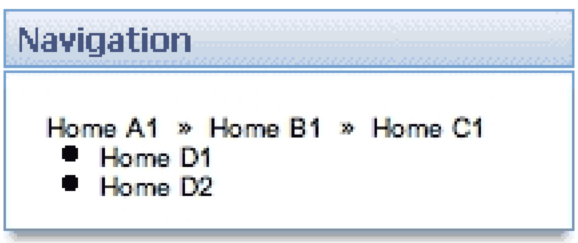
The Navigation portlet is similar to the Breadcrumb portlet in that it helps the user visualize the structure of the site and provides hyperlinks to quickly move from page to page. The advantage of the Navigation portlet is that it displays more information about the current page.

There are two styles of data iteration for the Navigation portlet (custom iteration styles can easily be written in JSP to customize it to your needs). Look at the following portal's layout structure:



Now, let us assume that a user is looking at the "Home C1" page of the portal. Here are what the two iterations would look like in the Navigation portlet:

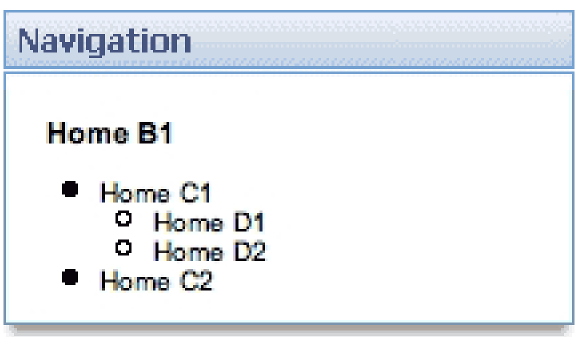
- Iteration Style #1

  This iteration focuses on the page lineage the user is viewing. Let us list some of the items that are shown in this iteration style:

  - Breadcrumb trail starting with the eldest parent (e.g. "Home A1") and terminating in the current page (e.g. "Home C1")
  - Listing of each children of the current page

- Iteration Style #2

  What are the characteristics of this iteration style?

- Title using the second to eldest parent (e.g. "Home B1")
- The current page (e.g. "Home C1") and each of its children are listed
- The sibling(s) of the current page (e.g. "Home C2") are shown

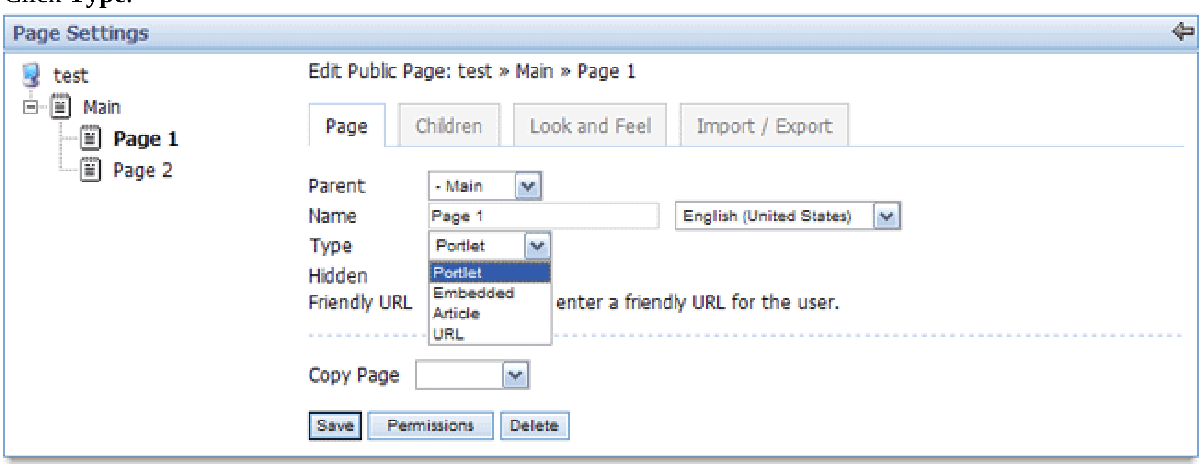
  This iteration helps to highlight all the relationships to the current page. What is the advantage of having the second to eldest parent be the title? It provides more specificity to the content of the page. The eldest parent of the Liferay website, for example, is "Home" and gives little value to the user, as opposed to "Products," "Documentation," or "News."

To take advantage of this portlet:

1. Add a Navigation portlet from the drop-down menu at the bottom of the column you want it in.
2. Click the **Edit** button to modify the properties of the portlet.
3. You can select whether to Show Portlet Borders or enter an optional Portlet Title. Note that the title will only show up if the borders are displayed.
4. Select the Iteration Style.
5. Click the **Save Settings** button.
6. Click the button to exit the preference editor (do not mistakenly click the remove button).

Associating Navigation Links with Articles and URLs

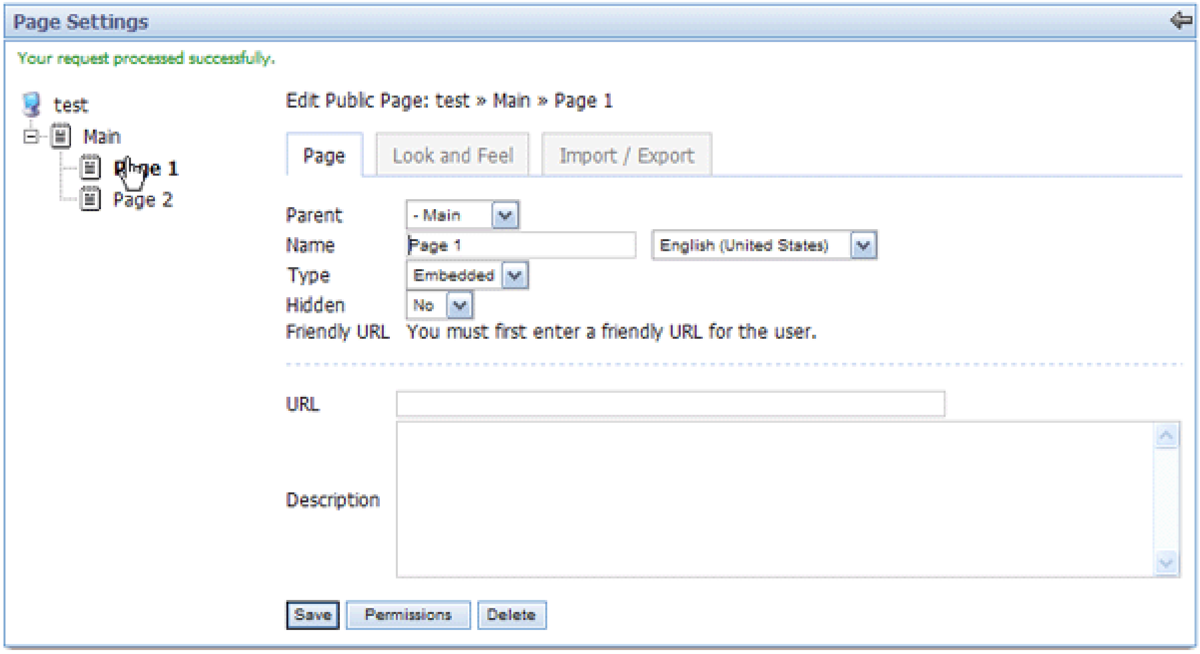
1. To associate navigation links with articles and URLs, click on **Page Settings**.
2. Select a page.
3. Click **Type**.



4. To associate a page with an article, select **Article**>**Save**>enter article ID>**Save**.
5. To associate a page with a portlet page, select **Portlet**.

6. To associate a page with an embedded URL, select **Embedded**.

7. **Save**.



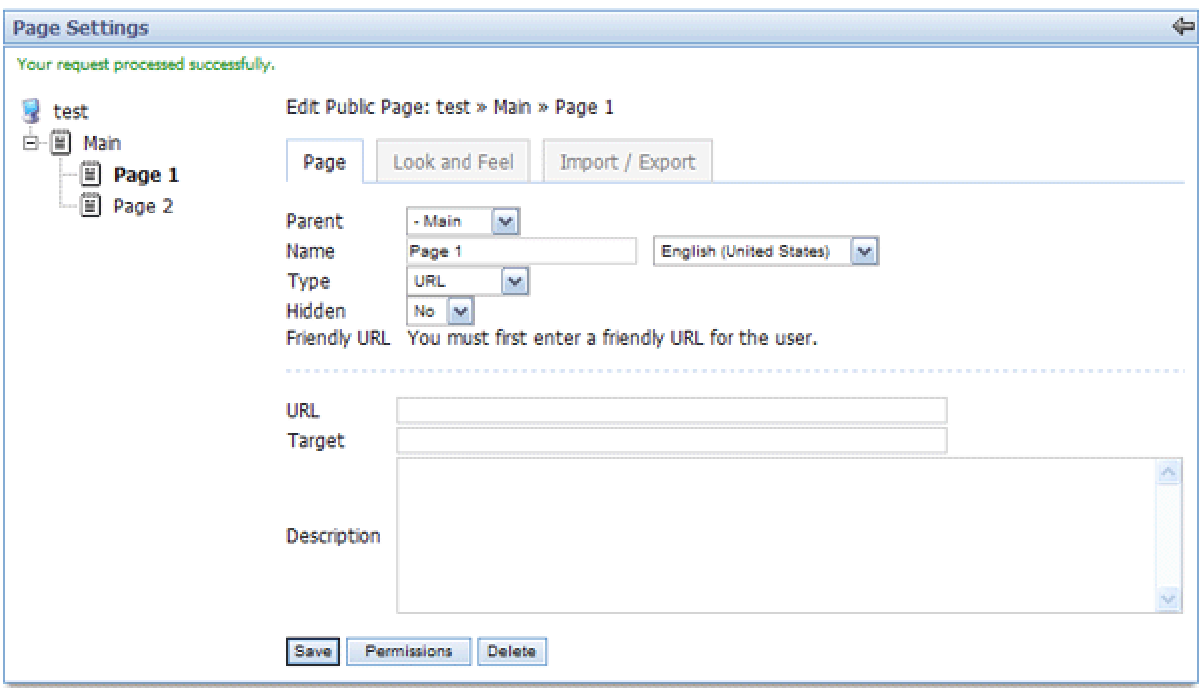
8. Enter URL.

9. To associate a page with a URL that will replace the current window, click **URL**.

10. **Save**>enter URL>**Save**.

11. To associate a page with a URL that will open in a new window, click **URL**.

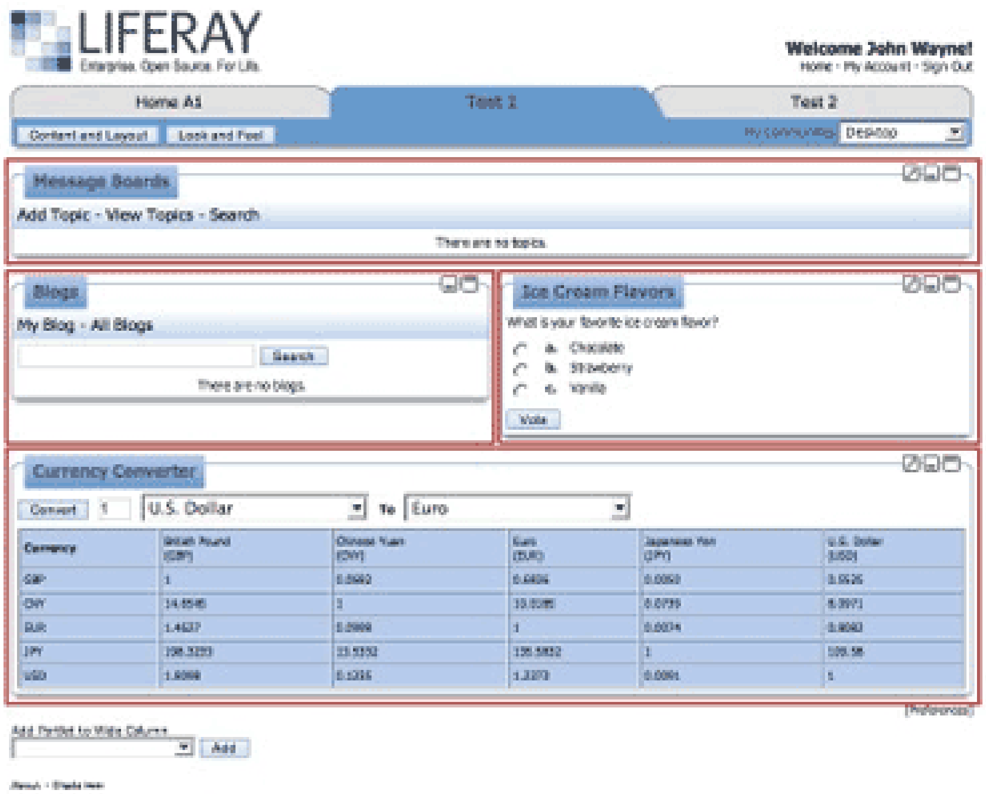
12. **Save**.



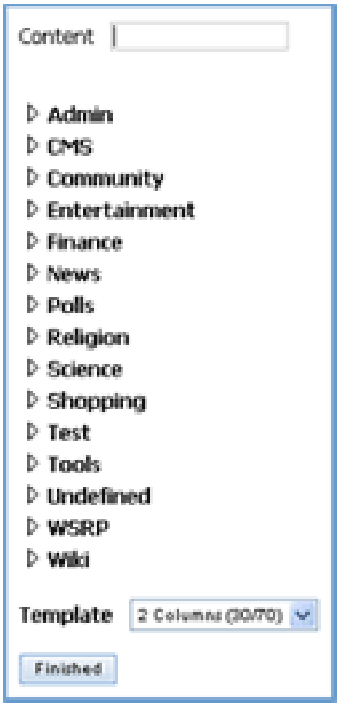
13. Enter URL.
14. Enter `_blank` in **Target**.
15. **Save**.

Layout Design Templates

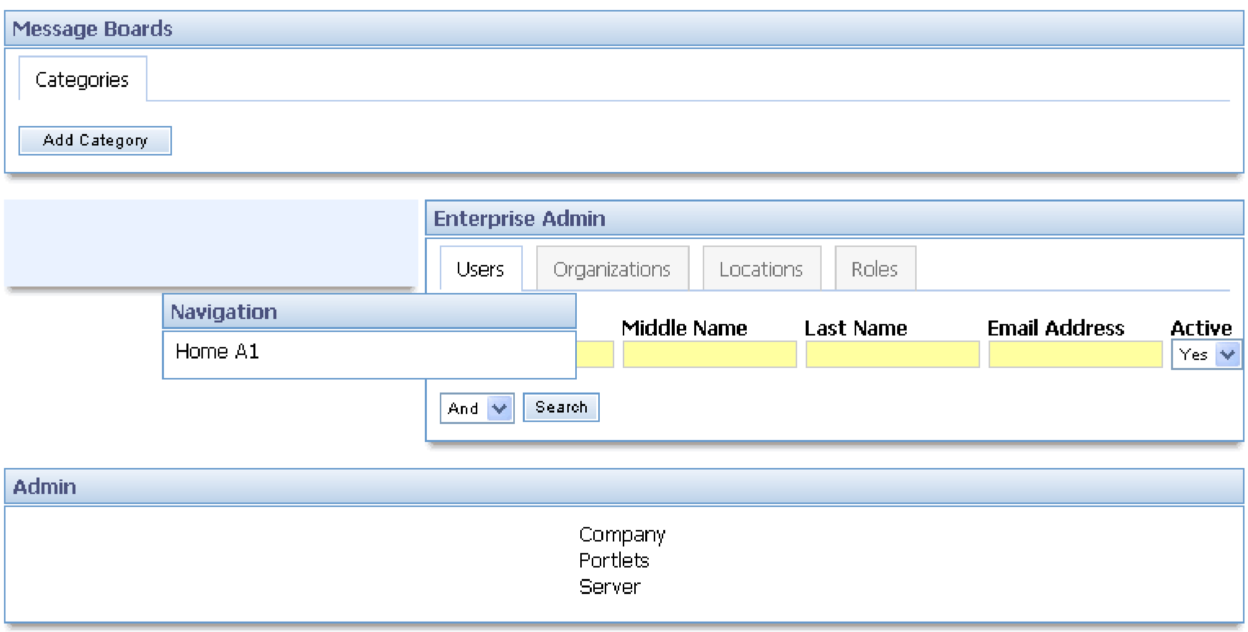
Our new layout design templates provides incredible flexibility for laying out portlets. Instead of being constrained to placing portlets under one, two, or three columns, you can now mix and match. Look at this example below:



Highlighted in red are four different portlets embedded in an instance of a 1-2-1 layout design template. The Message Boards portlet is laid across the entire width of the page, the Blog and Poll Display portlets are distributed across the middle columns, and the stretch of the bottom column contains the Currency Converter. To use design layout templates after portlets have been added, click on the **Add Content** link, which shows a pop-up of available portlets and the Template choice. Refer to figure below. To get the the same look as above, select the 1-2-1 template.



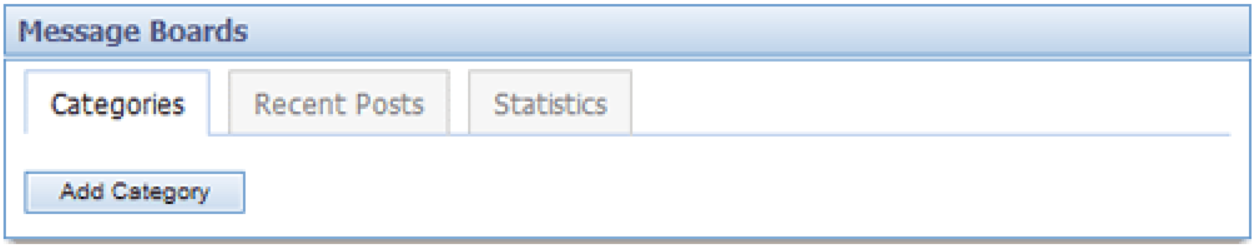
Click the **Finished** button in the pop-up area, then drag the portlets in the area you want. Refer to figure below.



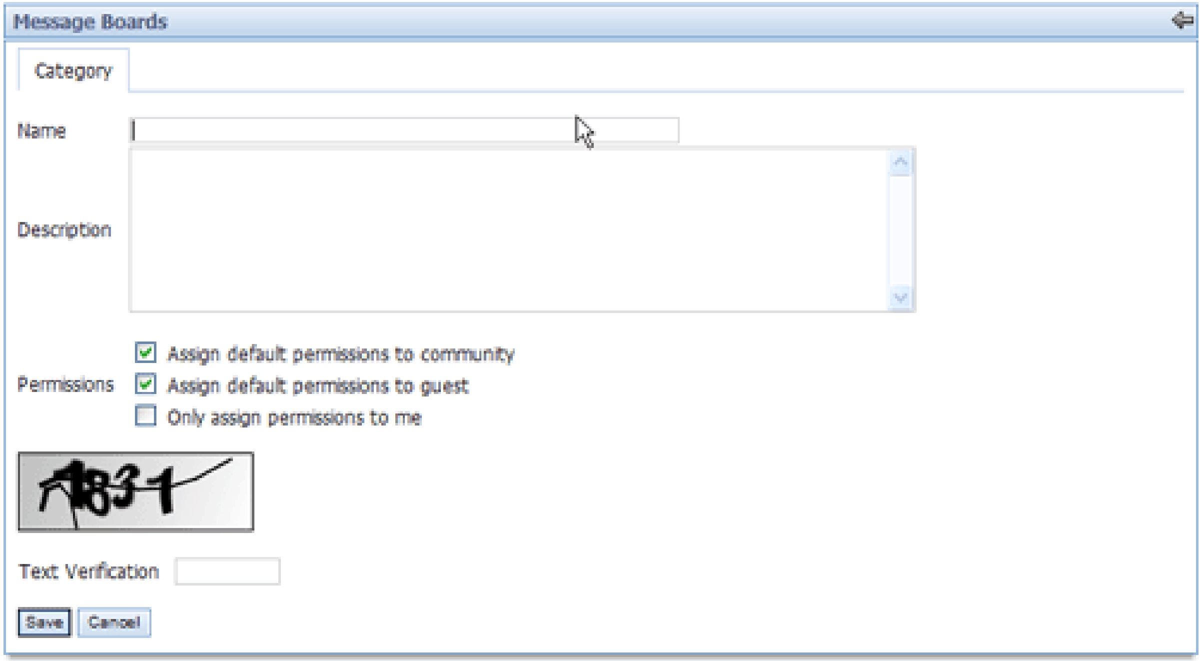
If the preloaded templates are insufficient for your needs, you can create your own deployable layouts, use a sample layout template, or use a community-submitted one.

Chapter 10. Message Board Portlet

Adding Category



1. Click **Add Category**.



2. Enter a name and enter the text verification code, and click **Save**.

3. To create sub-categories, click on the newly created category and click **Add Category**.

4. Enter a name and description, and click **Save**.

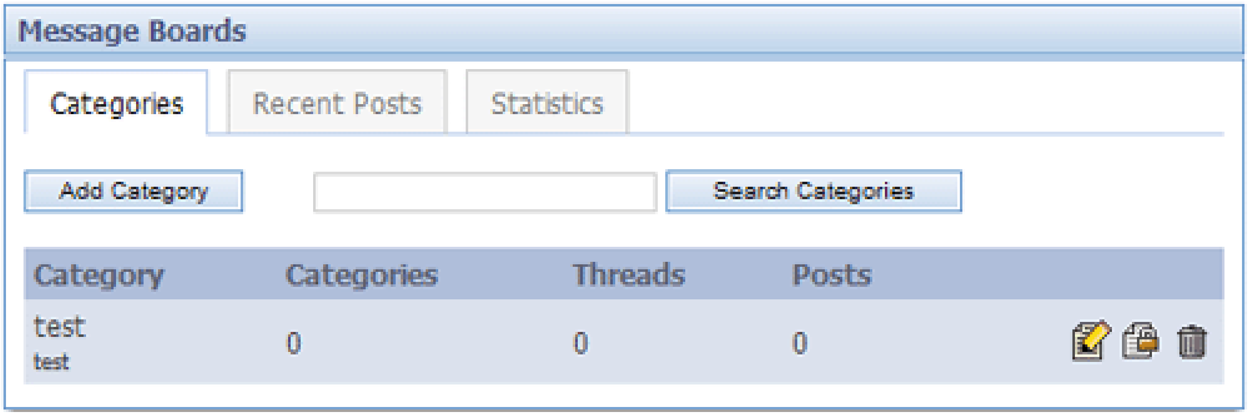
Adding Thread

1. Click **Post New Thread**.

2. Enter a name and description.

3. **Save**.

Editing Category and Thread

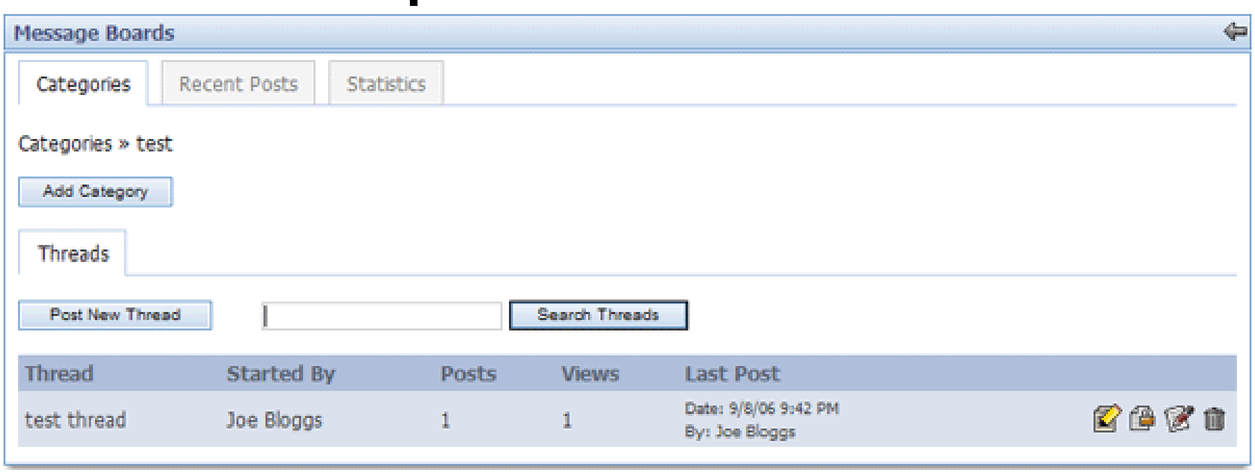


1. To edit a category or thread, click on the **Edit** () button located next to the category or thread you want to edit.

Deleting Category and Thread

1. To delete a category or thread, click on the **Delete** () button next to the category or thread you want to delete.

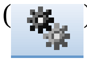
Thread Subscription



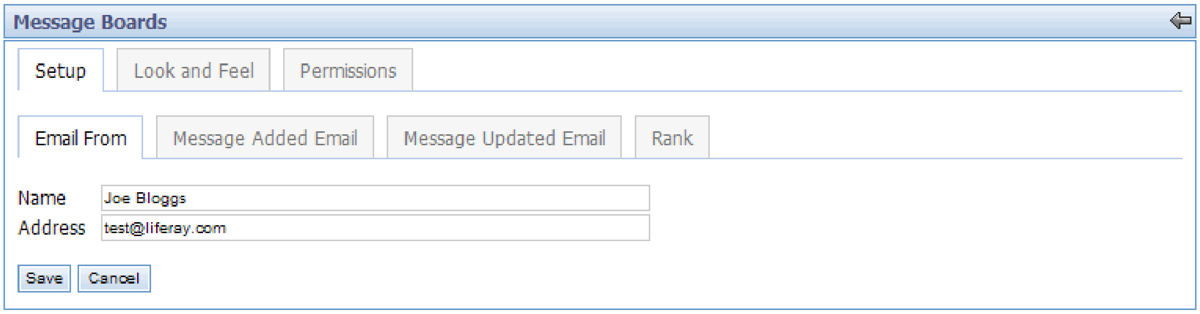
1. To be notified by email when a new message has been posted or updated, click **Subscribe** ().

2. To unsubscribe, click **Unsubscribe** ().

Configuring Subscription Emails

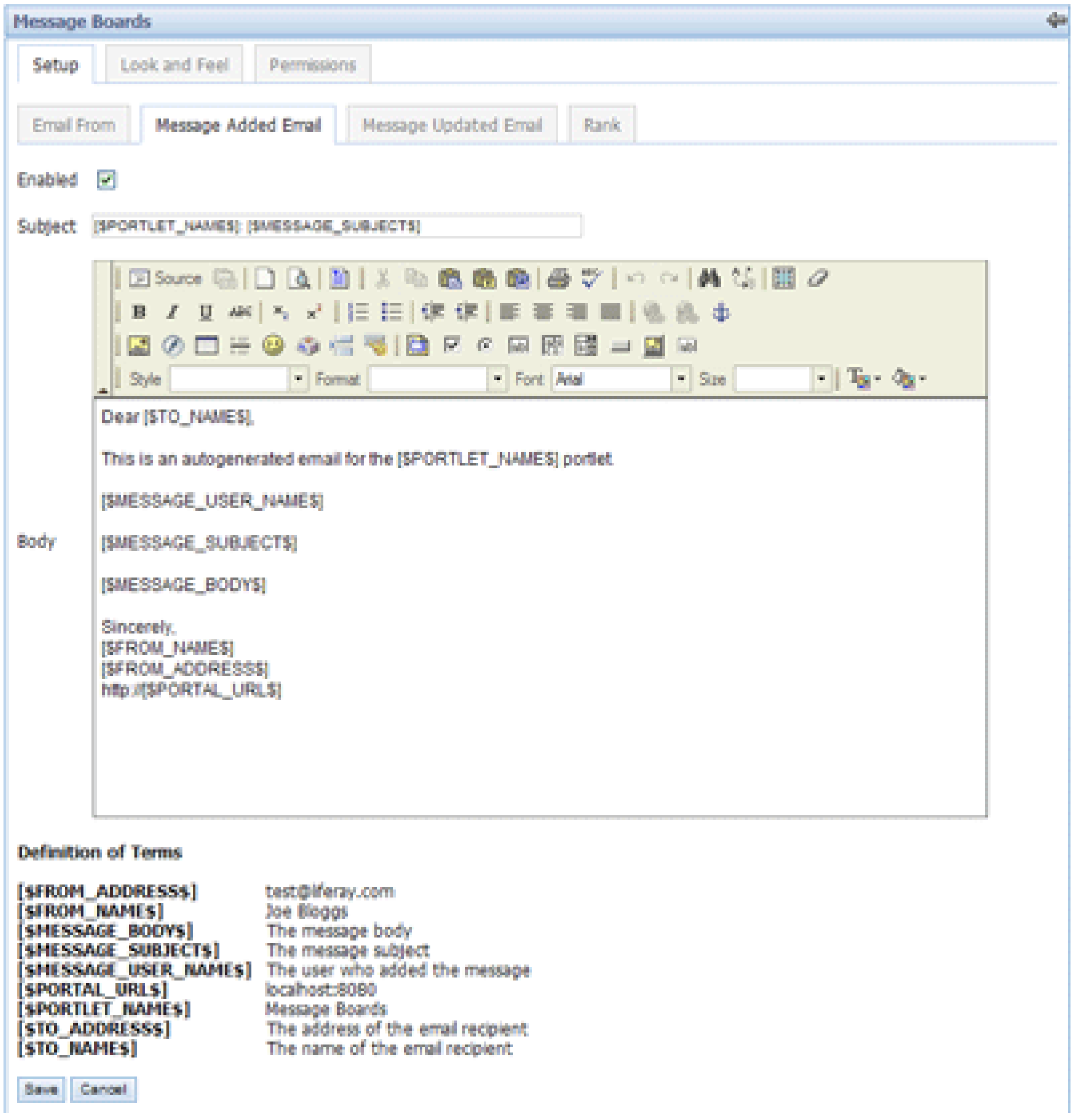
1. To configure the subscription function, click on **Configuration** ().

2. With the **Setup** tab selected, there are four sub-tabs that appear.



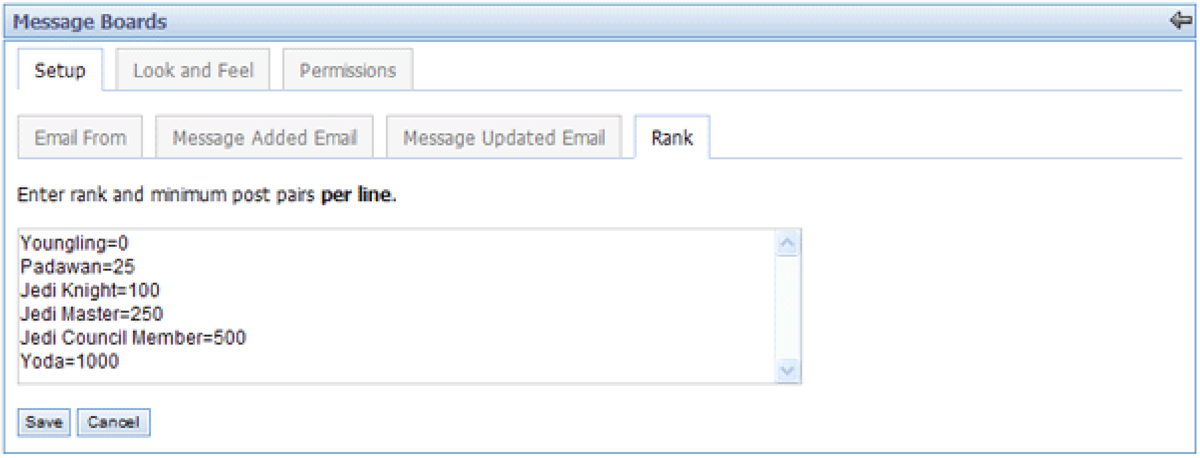
3. With the **Email From** tab selected, you can change the name and address of the automatically sent emails.

4. The **Message Added Email** tab allows the Administrator to edit the email that is sent whenever a posting is added. To disable email alerts, uncheck the **Enabled** box. Click **Save** after making any changes.



5. The **Message Updated Email** tab allows the Administrator to edit the email that is sent whenever a posting is updated. To disable email alerts, uncheck the **Enabled** box. Click **Save** after making any changes.

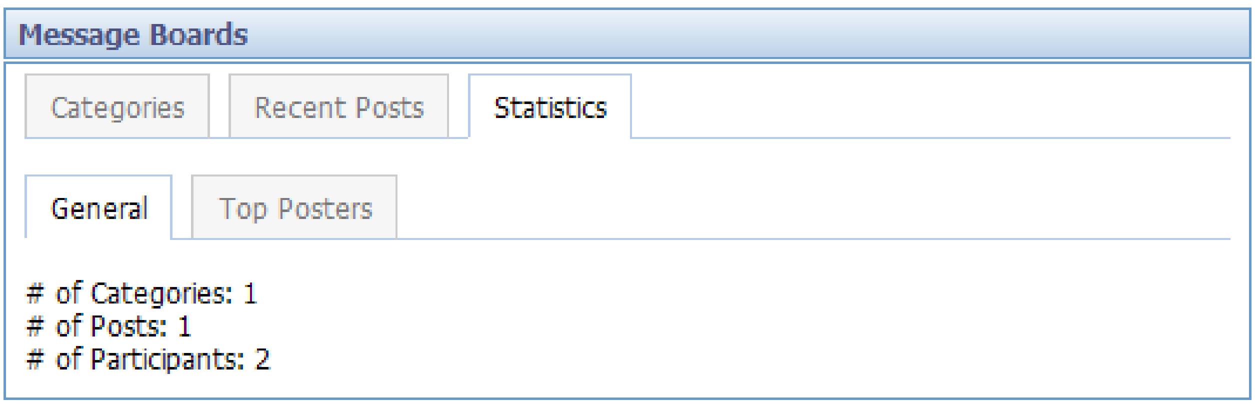
6. With the **Ranking** tab selected, the Administrator can manage the ranking profiles. The default setting assigns the youngling ranking to a message board poster with 0 to 24 postings. A poster with 250 to 499 postings will be assigned a Jedi Master ranking. The Administrator can change the ranking names and posting number requirements by making changes directly and clicking **Save**.



Recent Posts

1. Click the **Recent Posts** tab to see a list of recent postings.

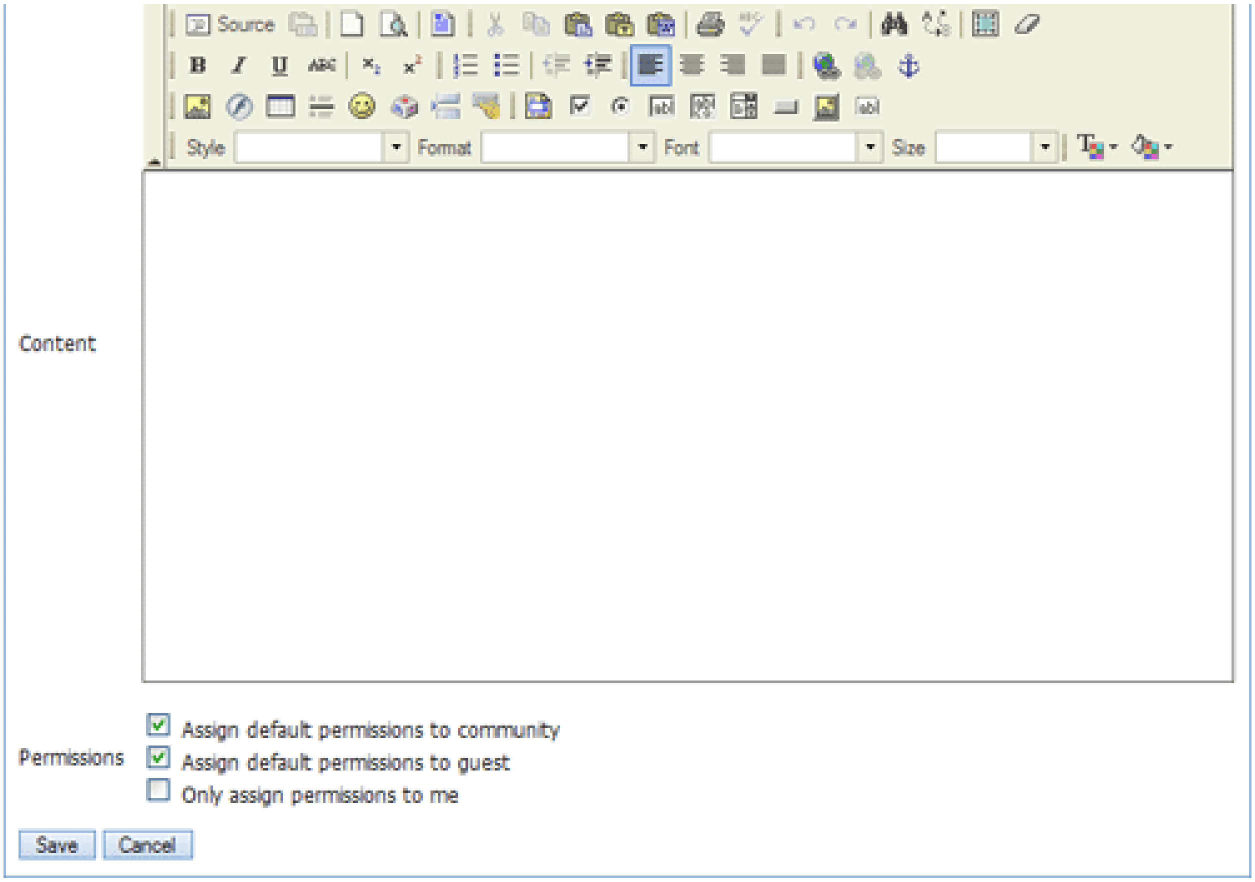
Statistics



1. Click the **Statistics** to see posting statistics.
2. Click **Top Posters** to see a list of most active users.

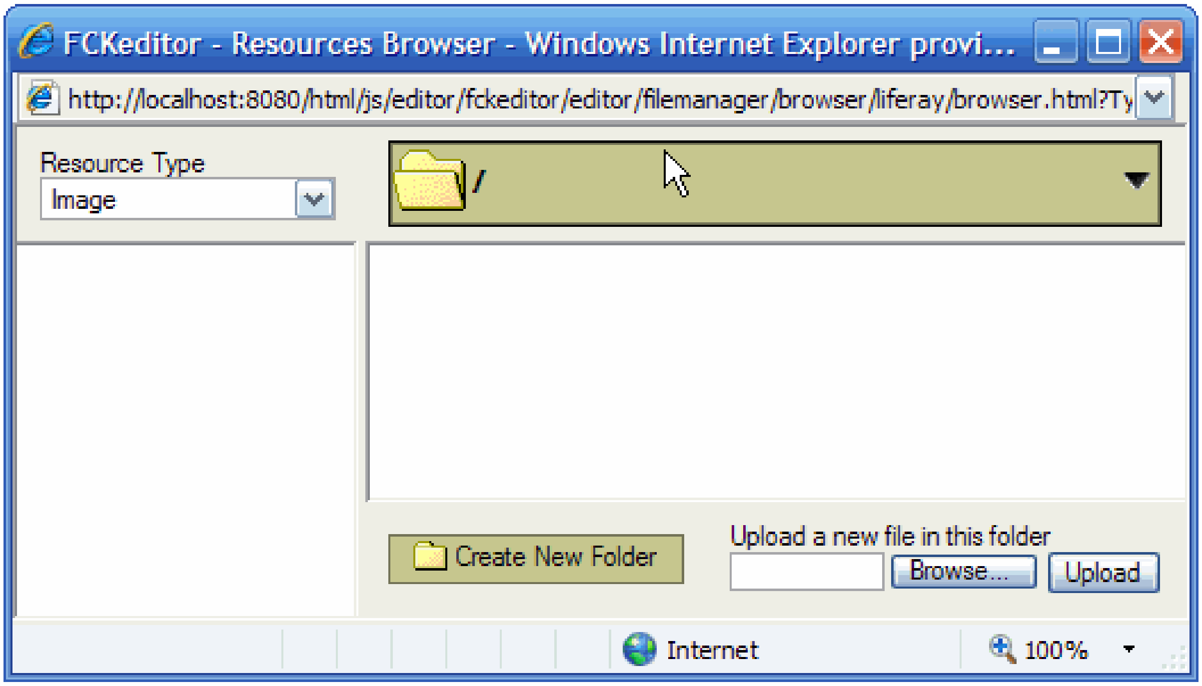
Chapter 11. WYSIWYG

Inserting Images



1. Click **Insert/Edit Image** ().

2. Enter a URL or click **Browse Server**.



3. If **Browse Server** is selected, click **Create New Folder** to add images to. Any folders and images that are added here will be placed in the Image Gallery. The Image Gallery provides a centralized repository for images to be stored and given a unique URL.

4. Type the name of the new folder and click **OK**.

5. Click on the newly created folder to add an image to it.

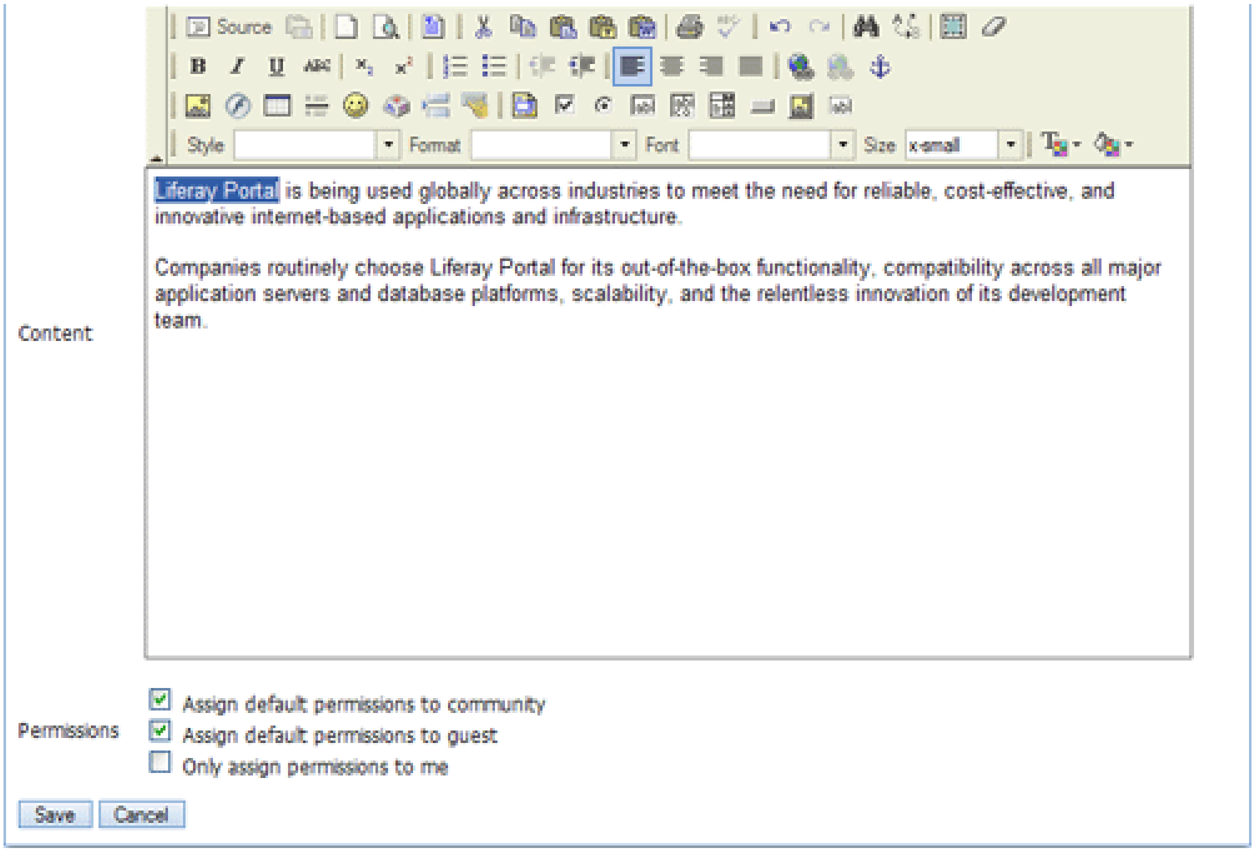
6. Click **Browse** and select an image.

7. Click **Upload** to add the image to the folder.

8. Click on the image and click **OK** to add the image to the document.

9. Click **Save** to save the updates.

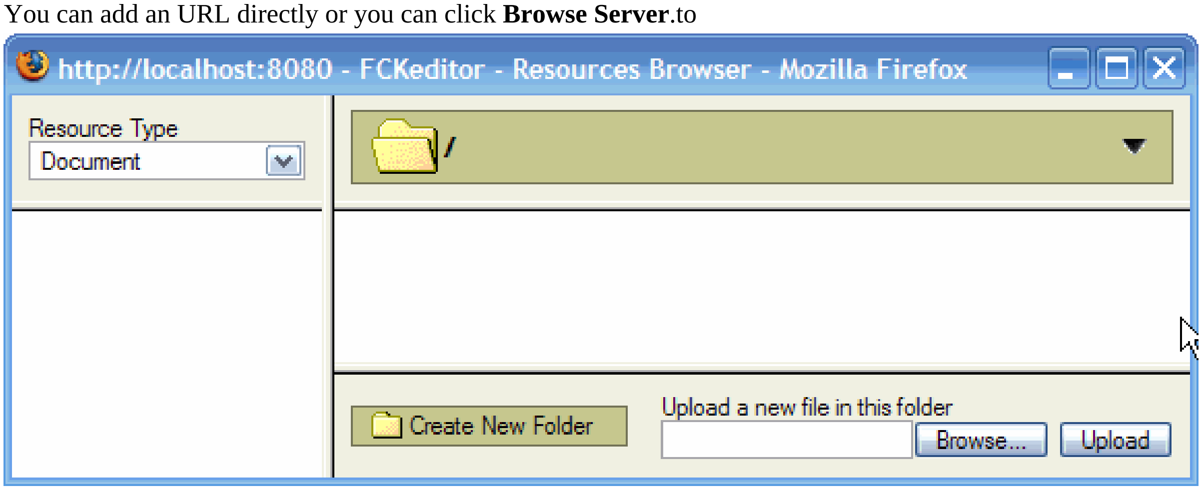
Inserting Links



1. Select text to link.

2. Click **Insert/Edit link** ().

3. You can add an URL directly or you can click **Browse Server**.to



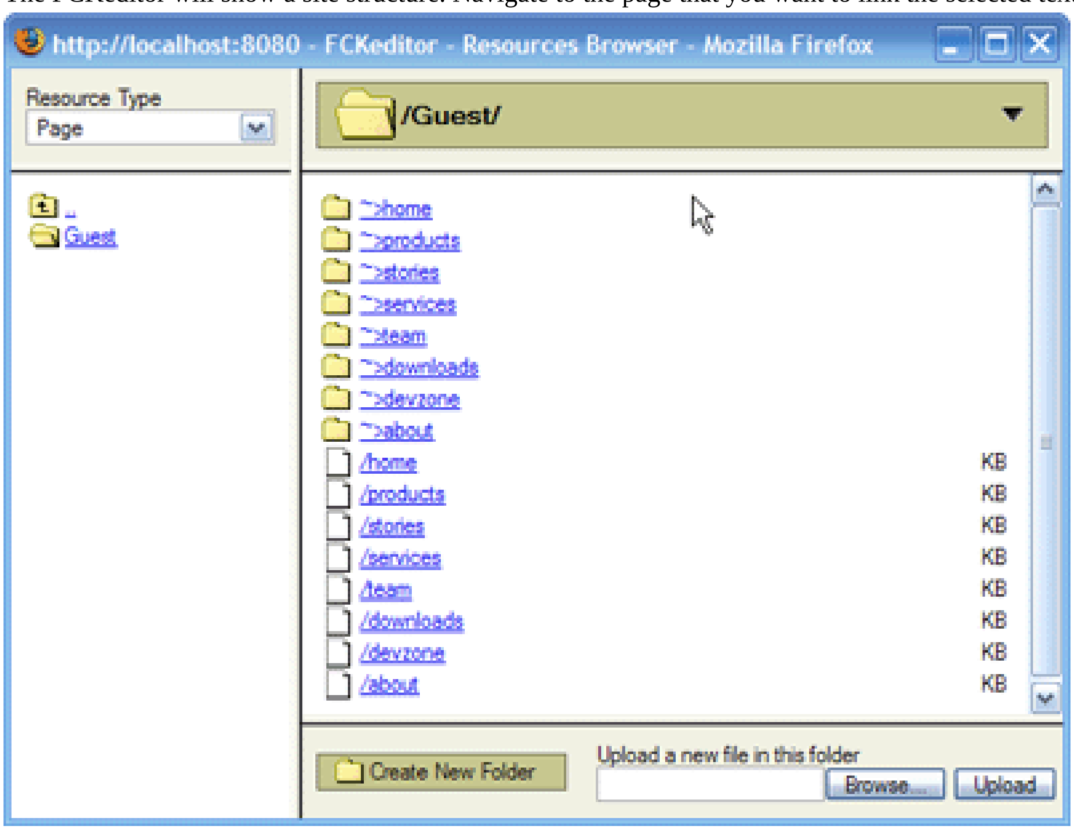
4. If **Browse Server** is selected, in the **Resource Type** menu you have the option to link it with a document, image, or page.

Linking to a Document

1. In the **Resource Type** menu select **Document**.
2. To link to a new document, click **Create New Folder**. Any documents added here will be placed in the Document Library.
3. Enter the name of the new folder.
4. Click on the newly created folder to add a document to it.
5. Click **Browse** and locate document.
6. Click **Upload** to add the document to the folder.
7. Click on the document and click **OK** to link the document with the selected text.

Linking to a Page

1. In the **Resource Type** menu select **Page**.
2. The FCKeditor will show a site structure. Navigate to the page that you want to link the selected text to.



3. Click **OK**.

Linking to an Image

1. In the **Resource Type** menu select **Image**.
2. To link to a new image, click **Create New Folder**. Any images added here will be placed in the Document Library.
3. Enter the name of the new folder.
4. Click on the newly created folder to add an image to it.
5. Click **Browse** and locate the image.
6. Click **Upload** to add the image to the folder.
7. Click on the image and click **OK** to link the image with the selected text.

Chapter 12. Configurations

Properties

Configuration information is stored in two properties files: portal.properties [http://content.liferay.com/document/portal.properties.html] and system.properties [http://content.liferay.com/document/system.properties.html].

On startup, the portal loads system.properties, system-ext.properties, portal.properties, and portal-ext.properties from the class path.

The *-ext.properties files make it easy for users to override the values without changing the source.

The portal checks with a setting in portal.properties to see whether or not to set the values in system.properties as actual system properties for the Java VM. The system properties include values for Java, Hibernate, logging, HTTP proxies, and more.

The portal then sets the values in portal.properties. The portal properties include values for languages, events, and much more.

Authentication

The portal's authentication scheme uses JAAS (servlet security) to propogate the authenticated user principal across the servlet and EJB tiers. The portal is very flexible and allows you to integrate with any outside source through database or LDAP servers to provide single sign-on functionality to all of your portlets.

- Authentication is configured in /portal-ejb/classes/portal.properties.

```
##
## Authentication Pipeline
##

    #
    # Input a list of comma delimited class names that implement
    # com.liferay.portal.auth.Authenticator. These classes will run before
or
    # after the portal authentication begins.
    #
    # The Authenticator class defines the constant values that should be
used
    # as return codes from the classes implementing the interface. If
    # authentication is successful, return SUCCESS; if the user exists but
the
    # passwords do not match, return FAILURE; and if the user does not
exist on
    # the system, return DNE.
    #
    # Constants in Authenticator:
    #     public static final int SUCCESS = 1;
    #     public static final int FAILURE = -1;
    #     public static final int DNE = 0;
    #
    # In case you have several classes in the authentication pipeline, all
of
    # them have to return SUCCESS if you want the user to be able to login.
If
```

```
    # one of the authenticators returns FAILURE or DNE, the login fails.
    #
    # Under certain circumstances, you might want to keep the information
in the
    # portal database in sync with an external database or an LDAP server.
This
    # can easily be achieved by implementing a class via LDAPAuth that
updates
    # the information stored in the portal user database whenever a user
signs
    # in.
    #
    # Each portal instance can be configured at run time to either
authenticate
    # based on user ids or email addresses. See the Admin portlet for more
    # information.
    #
    # Available authenticators are:
    #     com.liferay.portal.auth.ADSAuth
    #     com.liferay.portal.auth.LDAPAuth
    #
    auth.pipeline.pre=com.liferay.portal.auth.LDAPAuth
    #auth.pipeline.post=

    #
    # ADSAuth (Microsoft Active Directory Server)
    #
    auth.impl.ads.initial.context.factory=com.sun.jndi.ldap.LdapCtxFactory
    auth.impl.ads.security.authentication=none
    auth.impl.ads.host=10.1.1.22
    auth.impl.ads.port=389
    auth.impl.ads.userid=Administrator
    auth.impl.ads.password=password
    auth.impl.ads.domainlookup=dc=liferay,dc=com

    #
    # Input a list of comma delimited class names that implement
    # com.liferay.portal.auth.AuthFailure. These classes will run when a
user
    # has a failed login or when a user has reached the maximum number of
    # failed logins.
    #
    auth.failure=com.liferay.portal.auth.LoginFailure
    auth.max.failures=com.liferay.portal.auth.LoginMaxFailures
    auth.max.failures.limit=5

    #
    # Set the following to true if users are allowed to have simultaneous
logins
    # from different sessions.
    #
    auth.simultaneous.logins=true

    #
    # Set the following to true if users are forwarded to the last visited
path
    # upon successful login. If set to false, users will be forwarded to
their
    # default layout page.
    #
    auth.forward.by.last.path=true
```

```
#
# Enter a list of paths that do not require authentication.
#
auth.public.path.0=/blogs/find_entry
auth.public.path.1=/calendar/_iframe_events_public
auth.public.path.2=/document_library/get_file_public
auth.public.path.3=/document_library/get_file_version_public
auth.public.path.4=/journal/get_template
auth.public.path.5=/mail/update_receipt
auth.public.path.6=/random_bible_verse/iframe_verse
auth.public.path.7=/shopping/notify
```

Properties [http://www.liferay.com/web/guest/documentation/development/properties] can be edited or overridden.

- The LDAPAuth [http://content.liferay.com/document/api/portal-ejb/com/liferay/portal/auth/LDAPAuth.html] class provides a template to show how to integrate Liferay with an external LDAP repository. The source [http://content.liferay.com/document/api/portal-ejb/com/liferay/portal/auth/LDAPAuth.java.html] of this class gives more information on how it works.

  The method *authenticateByEmailAddress* is called if the portal is authenticating users based on an email address and password combination.

  The method *authenticateByUserId* is called if the portal is authenticating users based on an user ID and password combination.

  If LDAPAuth is set to run at *auth.pipeline.pre*, then it will be called before the user is authenticated against the portal database.

  If LDAPAuth is set to run at *auth.pipeline.post*, then it will be called after the user is authenticated against the portal database.

  LDAPAuth will first check to see if the given email address/user ID and password combination exists in the LDAP repository. If it does not, then authentication fails. If it exists, then the source will check to make sure the same LDAP user exists in the portal database. If the user does not exist, it will be created. This provides an easy way to ensure LDAP users exist in the portal database.

Look and Feel

The portal comes with several themes to demonstrate different ways the look and feel can be customized.

- Multiple skins can defined in ./portal-web/docroot/WEB-INF/liferay-look-and-feel.xml.

```
<look-and-feel>
  <compatibility>
    <version>3.6.0</version>
    <version>3.5.0</version>
  </compatibility>
  <theme id="classic" name="Classic">
    <root-path>/html/themes/classic</root-path>
    <templates-path>/html/themes/classic/templates</templates-path>
    <images-path>/html/themes/classic/images</images-path>
    <template-extension>jsp</template-extension>
```

```
    <settings>
      <setting key="hello" value="world" />
      <setting key="hi" value="mom" />
    </settings>
    <color-scheme id="01" name="Blue">
      <![CDATA[
        body-bg=#FFFFFF
        layout-bg=#FFFFFF
        layout-text=#000000
        layout-tab-bg=#E0E0E0
        layout-tab-text=#000000
        layout-tab-selected-bg=#6699CC
        layout-tab-selected-text=#4A517D
        portlet-title-bg=#6699CC
        portlet-title-text=#4A517D
        portlet-menu-bg=#B6CBEB
        portlet-menu-text=#000000
        portlet-bg=#FFFFFF
        portlet-font=#000000
        portlet-font-dim=#C4C4C4
        portlet-msg-status=#000000
        portlet-msg-info=#000000
        portlet-msg-error=#FF0000
        portlet-msg-alert=#FF0000
        portlet-msg-success=#007F00
        portlet-section-header=#596171
        portlet-section-header-bg=#AFBEDA
        portlet-section-subheader=#405278
        portlet-section-subheader-bg=#91AEE8
        portlet-section-body=#3F3F3F
        portlet-section-body-bg=#EAF2FF
        portlet-section-body-hover=#FFFFFF
        portlet-section-body-hover-bg=#5274AE
        portlet-section-alternate=#3F3F3F
        portlet-section-alternate-bg=#DBE1ED
        portlet-section-alternate-hover=#FFFFFF
        portlet-section-alternate-hover-bg=#5274AE
        portlet-section-selected=#7AA0EC
        portlet-section-selected-bg=#FAFCFE
        portlet-section-selected-hover=#00329A
        portlet-section-selected-hover-bg=#C0D2F7
      ]]>
    </color-scheme>
  </theme>
</look-and-feel>
```

The compatibility tag defines the version(s) the theme is compatible with. The portal will not load a theme if the theme's version does not match its own.

Under the theme tag, you can give the theme an ID and display name. The ID need only be unique within that particular XML file, meaning another theme can have the same ID in an XML file located elsewhere (ie. in another WAR). The paths should also be set to the respective locations. You can use the optional settings to create parameters that are accessible from the code.

The color-scheme tag defines the colors for various elements within a theme. (Ex. body-bg defines the body background color, portlet-font defines the font color for the portlets, etc.) In the example code, the Classic theme contains a color-scheme called Blue, which has an ID of 01. Multiple color schemes can be defined for a theme, but the ID need only be unique within the current theme.

After modifying the file, run **ant build-color-scheme** from ./portal-web/ to generate the appropriate images files for each color-scheme. For example, the Blue color scheme images will be generated into

./portal-web/docroot/html/themes/classic/color_schemes/01/.

Note

Images will be generated for the Classic theme only and not for any other themes.

- All the theme files are located in their own separate directory under ./portal-web/docroot/html/themes/. For the included *Classic* theme, the color-scheme specific files are under "color_schemes," general images used by the theme are under "images," and the template source code is under "templates."
- All of code for the portal elements affect by the theme are in the respective theme directory under ./templates/. Below is a list of files along with a short description of their function.

init.jsp	Initializes variables and properties needed for the theme
portal_init.jsp	Initializes variables and properties used by portal_normal.jsp & portal_pop_up.jsp. Includes init.jsp
css.jsp	Contains CSS style definitions for your entire theme
portal_normal.jsp	Controls the layout of portal templates for normal pages
portal_pop_up.jsp	Controls the layout of portal templates for pop-ups
top.jsp	Draws the top of the portal
bottom.jsp	Draws the bottom of the portal
navigation.jsp	Draws the navigation bar of the portal
portlet_top.jsp	Draws the top of each portlet
portlet_bottom.jsp	Draws the bottom of each portlet
inner_top.jsp	Draws the top of a tabbed box that's nested inside a portlet
inner_bottom.jsp	Draws the bottom of a tabbed box that's nested inside a portlet.
javascript.jsp	Contains JavaScript declarations

Note

File names will have a .vm extension if Velocity is used, in which case the template-extension tag would indicate VM instead of JSP.

- Custom theme files can reside outside the portal's theme directory. For more information on deploying external themes, see Community Themes [http://www.liferay.com/web/guest/downloads/themes].

Chapter 13. Internationalization

Languages

Liferay Portal works with multiple languages. Liferay uses Struts [http://jakarta.apache.org/struts] to provide users with internationalized messages.

The default installation supports Chinese, Dutch, English, French, German, Greek, Italian, Japanese, Korean, Portuguese, Spanish, Turkish, and Vietnamese.

- Available languages are set in /portal-ejb/classes/portal.properties.

```
##
## Languages and Time Zones
##

    #
    # Specify the available locales. Messages corresponding to a specific
    # language are specified in properties files with file names matching
that
    # of content/Language_*.properties. These values can also be overridden
in
    # properties files with file names matching that of
    # content/Language_*-ext.properties. Use a comma to separate
    # each entry.
    #
    # All locales must use UTF-8 encoding.
    #
    # The following links specifiy language and country codes:
    #     http://ftp.ics.uci.edu/pub/ietf/http/related/iso639.txt
    #     http://userpage.chemie.fu-berlin.de/diverse/doc/ISO_3166.html
    #
locales=zh_CN,zh_TW,nl_NL,en_US,fr_FR,de_DE,el_GR,it_IT,ja_JP,ko_KP,pt_BR,es_ES,tr_TR,vi

    #
    # Set the following to true if unauthenticated users get their
preferred
    # language from the Accept-Language header. Set the following to false
if
    # unauthenticated users get their preferred language from their
company.
    #
    locale.default.request=false

    #
    # Specify the Struts character encoding. UTF-8 allows for the use of
more
    # languages but takes a 15% performance hit compared to ISO-8859-1.
    #
    struts.char.encoding=UTF-8
```

  These properties in your `portal-ext.properties` can be edited or overridden.

- Different languages have different properties files.

  The English language properties file is `Language.properties` and can be found in /portal-ejb/classes/content.

You can override the values in the English language property file by creating `Language-ext.properties` and adding new values. Make sure this file is accessible in the class path.

The Japanese language properties file is `Language_ja.properties`. To input Japanese characters, edit `Language_ja.properties.native` and input Japanese characters that are UTF-8 encoded. Use the native2ascii [http://java.sun.com/j2se/1.4.2/docs/api/java/util/Properties.html] tool to transform `Language_ja.properties.native` to `Language_ja.properties`.

You can override the values in the Japanese language property file by creating `Language-ext_ja.properties` and adding new values. Make sure this file is accessible in the class path.

- Go to /portal-ejb and run **ant build-lang**. This will translate any keys that exist in English but are missing in the other supported languages.
- To access locale depent messages from JSPs, use the Struts tag **`<bean:message key="search" />`** or get the ResourceBundle from the `portletConfig`.

  To access locale depent messages from Java classes, use **`LanguageUtil.get(locale, "search")`** or **`LanguageUtil.get(pageContext, "search")`**.