Spring Security UI Plugin

Reference Documentation

GRAILS

Spring Security UI Plugin - Reference Documentation

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Version 3.0.0.M2

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Chapter 1. Introduction to the Spring Security UI Plugin

The Spring Security UI plugin provides CRUD screens and other user management workflows. Non-default functionality is available only if the feature is available; this includes the ACL controllers and views which are enabled if the ACL plugin is installed, Requestmaps support which is available if `grails.plugin.springsecurity.securityConfigType` is set to `"Requestmap"` or `SecurityConfigType.Requestmap` in `application.groovy`, and persistent cookies support which is enabled if it has been configured with the `s2-create-persistent-token` script.

To support both Grails 3.0.x and 3.1.x applications, the plugin depends on version 5.0.x of the hibernate4 plugin and the grails-data-mapping libraries. Because of the way that dependency resolution works across Grails versions, you must add explicit dependencies for the hibernate4 plugin and the GORM libraries to ensure that everything is in sync. As of this writing the current release version of the hibernate4 plugin is '5.0.4' and '5.0.4.RELEASE' for the grails-data-mapping libraries. In addition to adding a dependency for this plugin, add these to the `dependencies` block of your `build.gradle`:

```
compile 'org.grails.plugins:hibernate4:5.0.4'

compile 'org.grails:grails-datastore-core:5.0.4.RELEASE'
compile 'org.grails:grails-datastore-gorm-support:5.0.4.RELEASE'
compile 'org.grails:grails-datastore-gorm:5.0.4.RELEASE'
compile 'org.grails:grails-datastore-simple:5.0.4.RELEASE'
compile 'org.grails:grails-datastore-gorm-hibernate4:5.0.4.RELEASE'
compile 'org.grails:grails-datastore-gorm-hibernate-
core:5.0.4.RELEASE'
```

If you use MongoDB or another NoSQL datastore other than Hibernate, retain the supporting dependencies but update the datastore-specific dependencies as necessary.

Also be sure to update the versions when new releases are available.

1.1. Release History

- April 15, 2016
  - 3.0.0.M2 release
- December 21, 2015
  - 3.0.0.M1 release
- December 21, 2015
  - 1.0-RC3 release

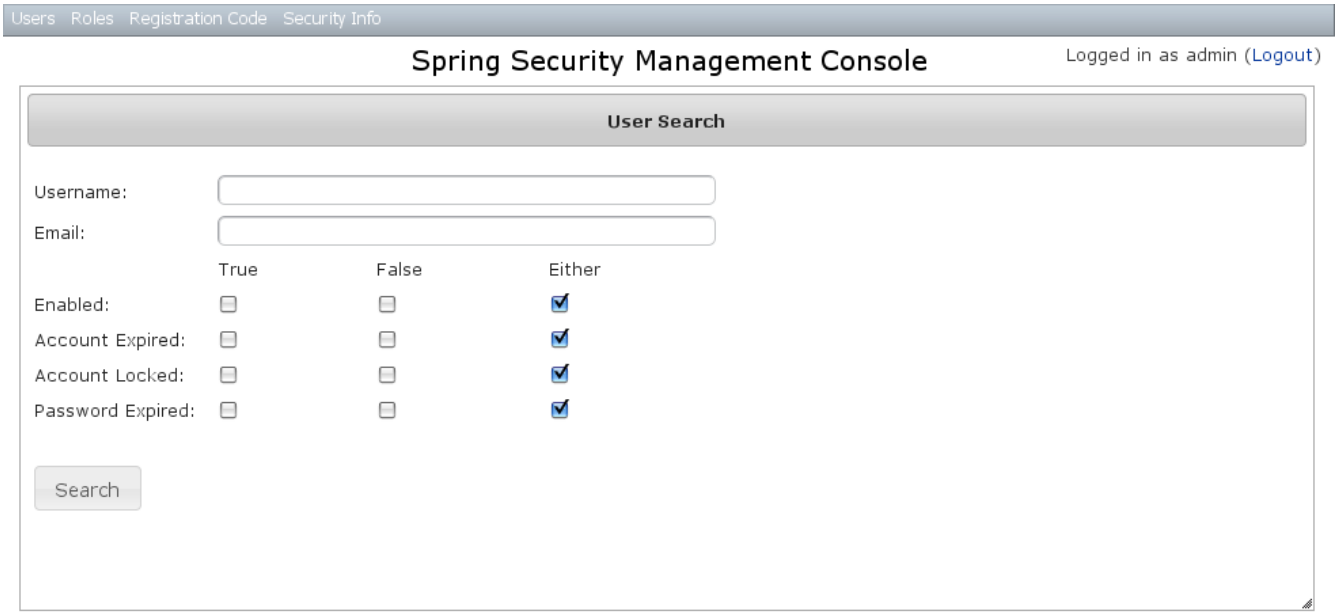
- May 20, 2014
  - 1.0-RC2 release
- November 11, 2013
  - 1.0-RC1 release
  - JIRA Issues
- February 12, 2012
  - 0.2 release
  - JIRA Issues
- September 14, 2010
  - 0.1.2 release
  - JIRA Issues
- July 27, 2010
  - 0.1.1 release
- July 26, 2010
  - initial 0.1 release

Chapter 2. User Management

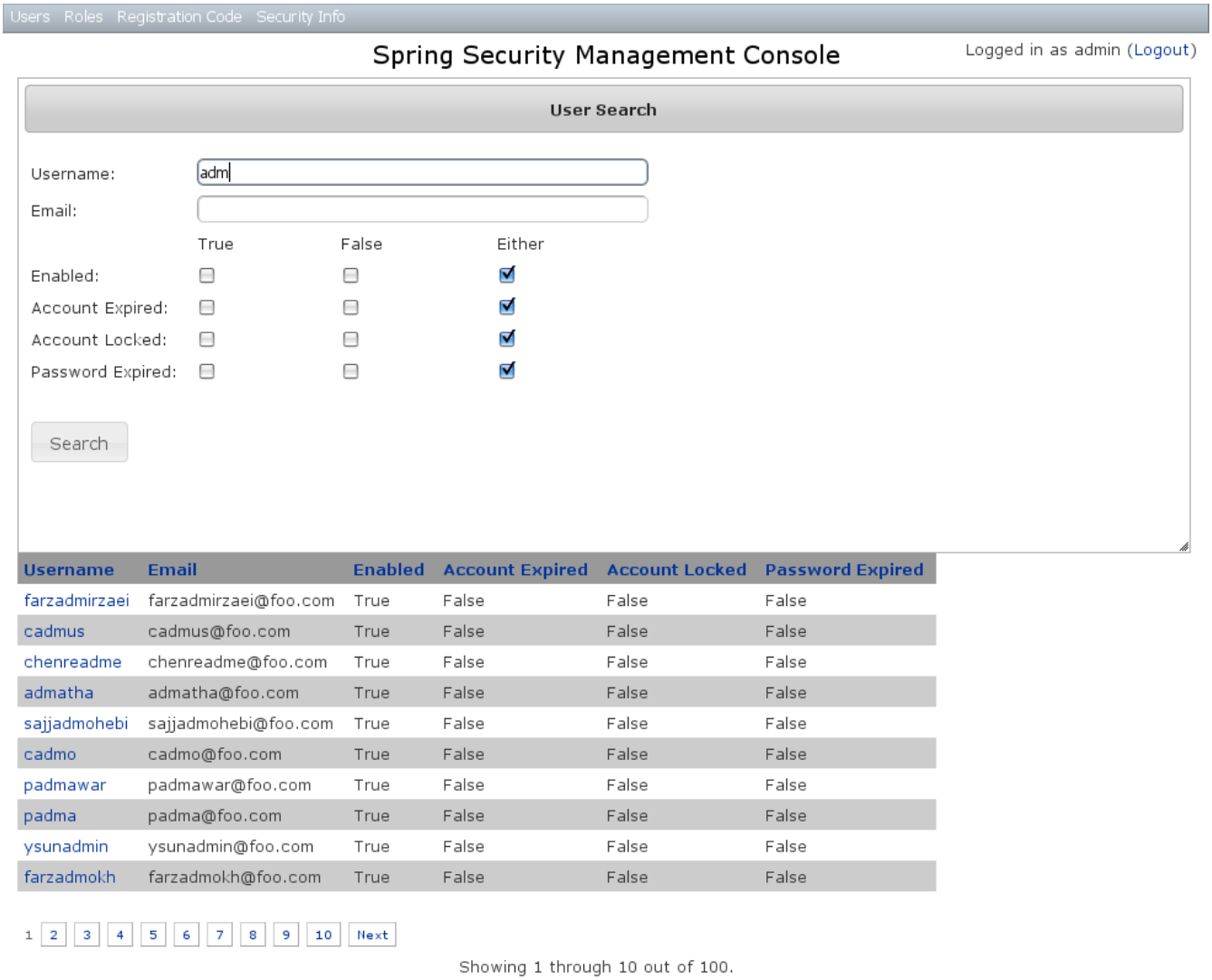
2.1. User search

The default action for the User controller is search. By default only the standard fields (`username`, `enabled`, `accountExpired`, `accountLocked`, and `passwordExpired`) are available but this is customizable with the s2ui-override script - see the Customization section for details.

You can search by any combination of fields, and the `username` field has an Ajax autocomplete to assist in finding instances. In this screenshot you can see that an `email` field has been added to the domain class and UI. Leave all fields empty and all checkboxes set at "Either" to return all instances.

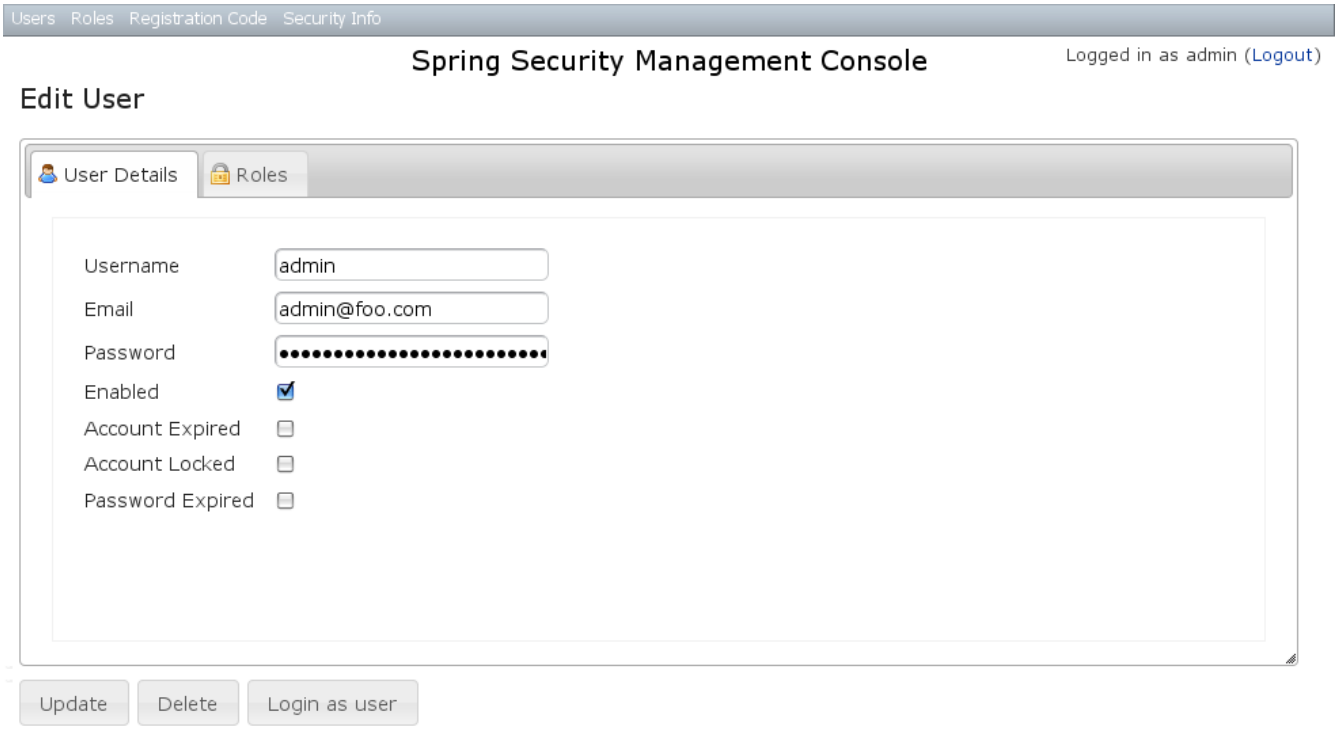


This example shows a search for usernames containing 'adm' (the search is case-insensitive and the search string can appear anywhere in the username). Results are shown paginated in groups of 10. All of the column headers are clickable and will sort the results by that field.



2.2. User edit

After clicking through to the 'admin' User you get to the edit page (there are no view pages):



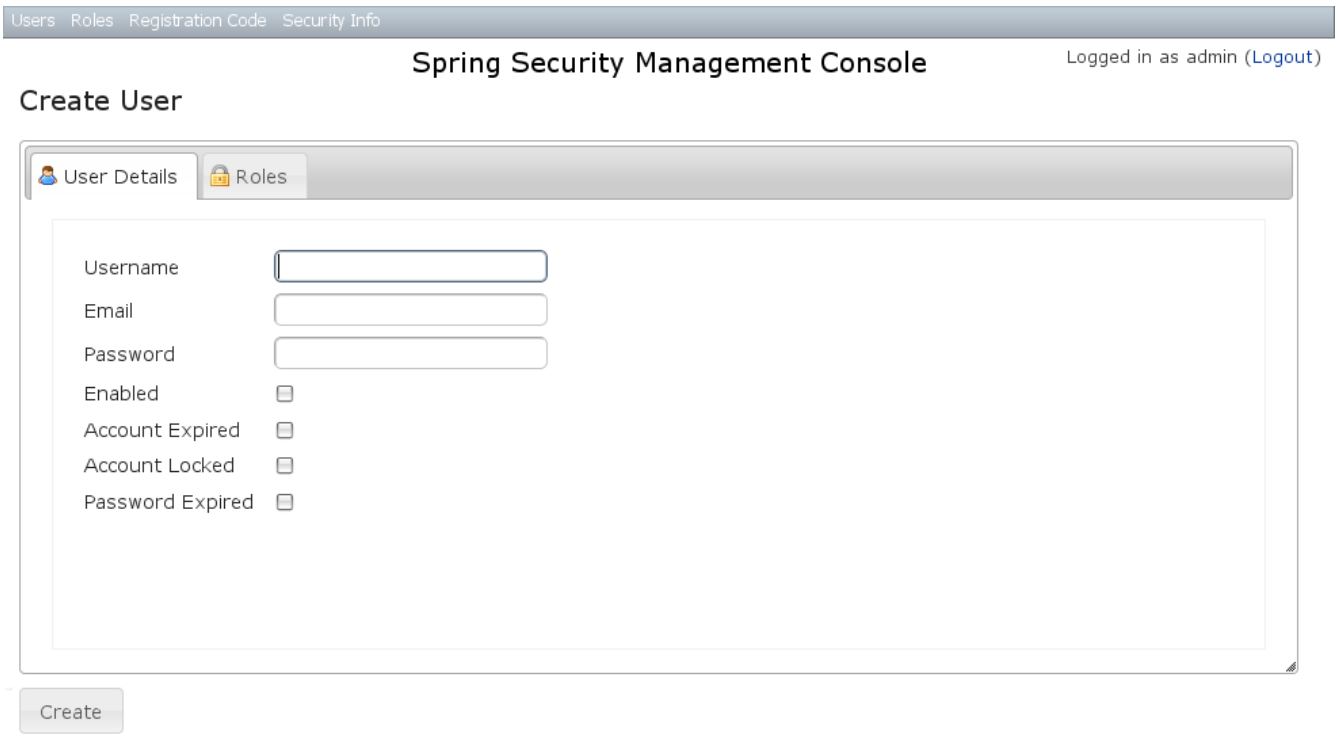
You can update any of the attributes or delete the User. You can see that there's a "Login as user" button here - that is only shown if you're authenticated with a User who is granted `ROLE_SWITCH_USER` (this role name can be configured in `application.groovy`):

This allows you to temporarily assume the identity of another User (see the Spring Security Core plugin documentation for more information about switch-user). The "Logged in as ..." information in the top right of the screen will change to show that you're running as another User and provide a link to switch back. The role name `ROLE_SWITCH_USER` is the default but you can change the value with the `grails.plugin.springsecurity.ui.switchUserRoleName` setting in application.groovy.

If you click the Roles tab you can see the roles granted to this User and can click through to its edit page:

2.3. User creation

You can create new Users by going to `/user/create` or by clicking the `Create` action in the `Users` menu.

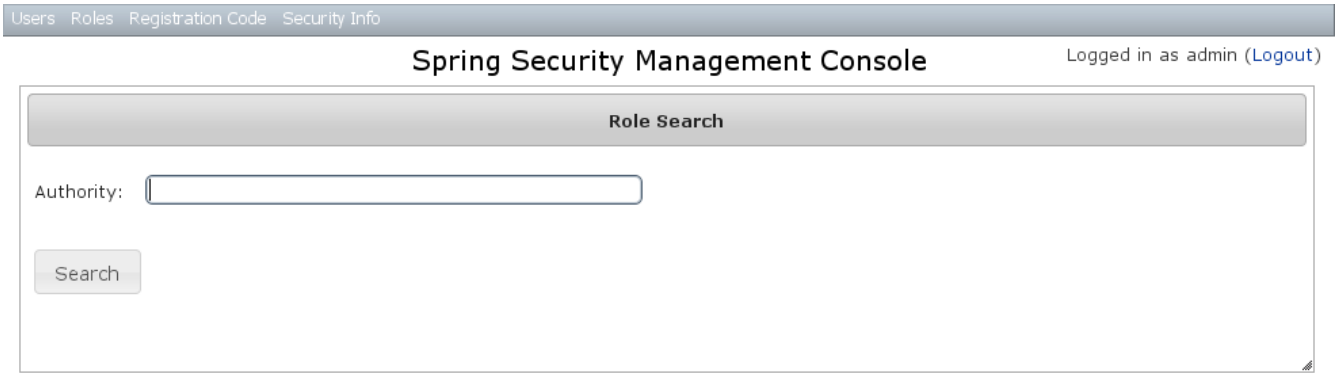


Chapter 3. Role Management

3.1. Role search

The default action for the Role controller is search. By default only the `authority` field is available but this is customizable with the s2ui-override script - see the Customization section for details.

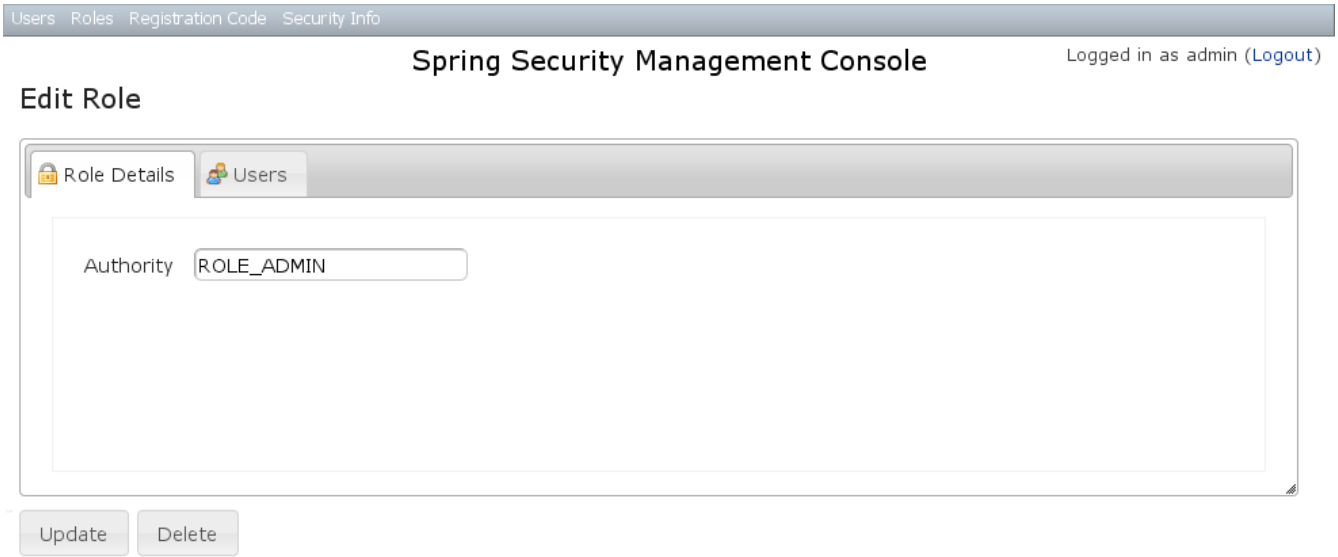
The `authority` field has an Ajax autocomplete to assist in finding instances. Leave the field empty to return all instances.



Search is case-insensitive and the search string can appear anywhere in the name (and you can omit the `ROLE_` prefix). Results are shown paginated in groups of 10 but if there's only one result you'll be forwarded to the edit page for that Role. The `authority` column header is clickable and will sort the results by that field.

3.2. Role edit

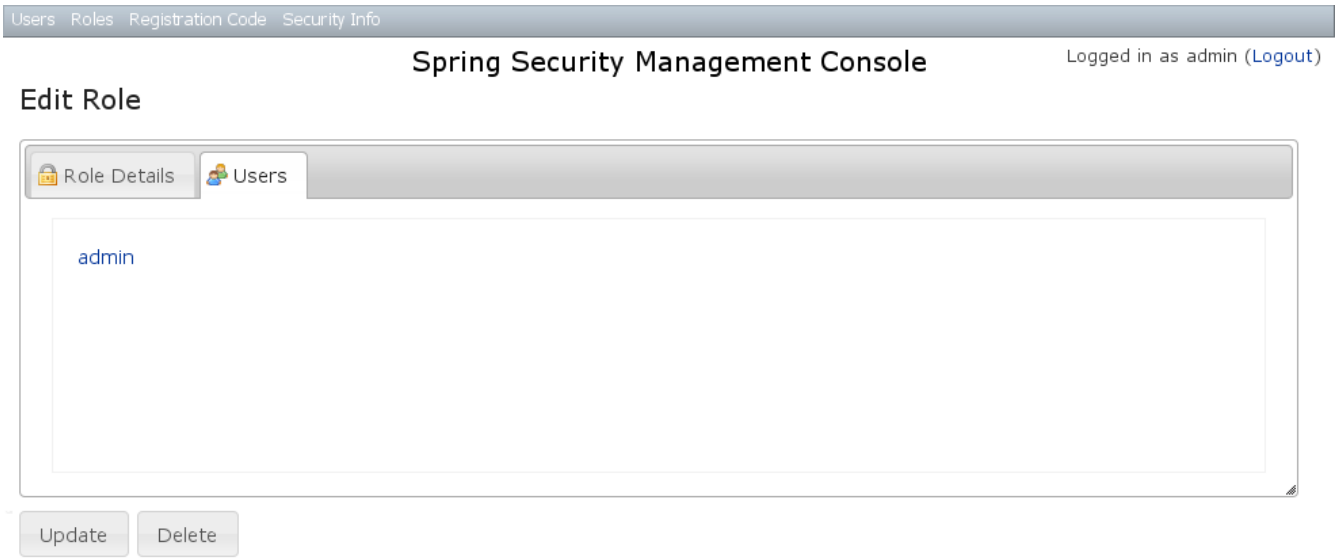
After clicking through to a Role you get to the edit page (there are no view pages):



You can update any of the attributes or delete the Role. Any user that had been granted the Role will lose the grant but otherwise be unaffected.

If you click the Users tab you can see which users have a grant for this Role and can click through to

their edit page:



3.3. Role creation

You can create new Roles by going to `/role/create` or by clicking the `Create` action in the `Roles` menu.

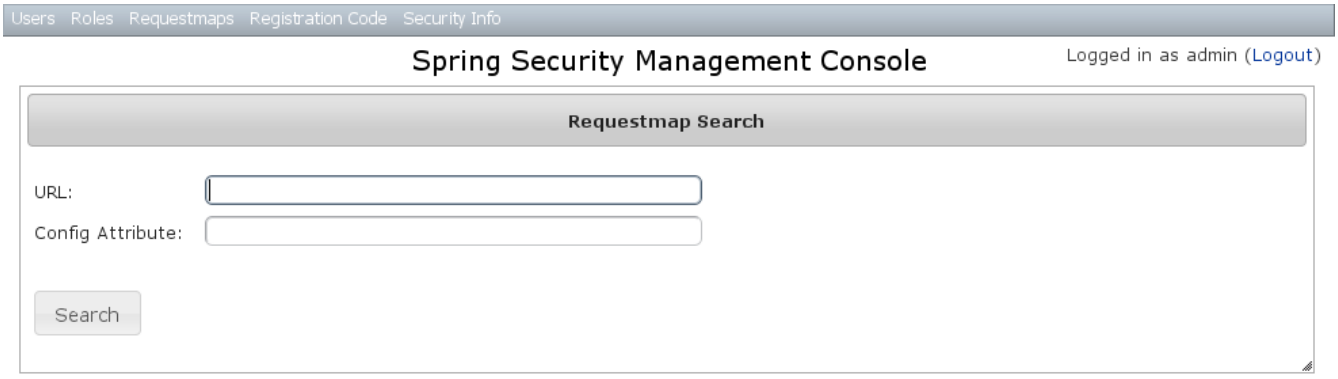
Chapter 4. Requestmap Management

The default approach to securing URLs is with annotations, so the Requestmaps menu is only shown if `grails.plugin.springsecurity.securityConfigType` has the value `"Requestmap"` or `SecurityConfigType.Requestmap` in `application.groovy`.

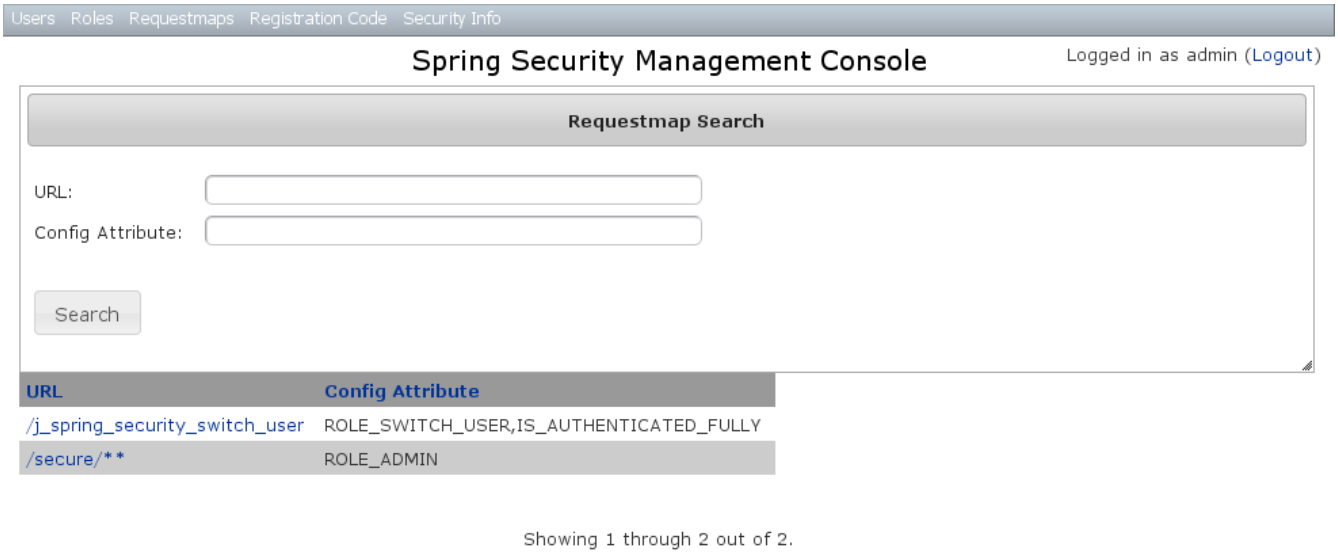
4.1. Requestmap search

The default action for the Requestmap controller is search. By default only the standard fields (`url` and `configAttribute`) are available but this is customizable with the s2ui-override script - see the Customization section for details.

You can search by any combination of fields, and the `url` and `configAttribute` fields have an Ajax autocomplete to assist in finding instances. Leave both fields empty to return all instances.

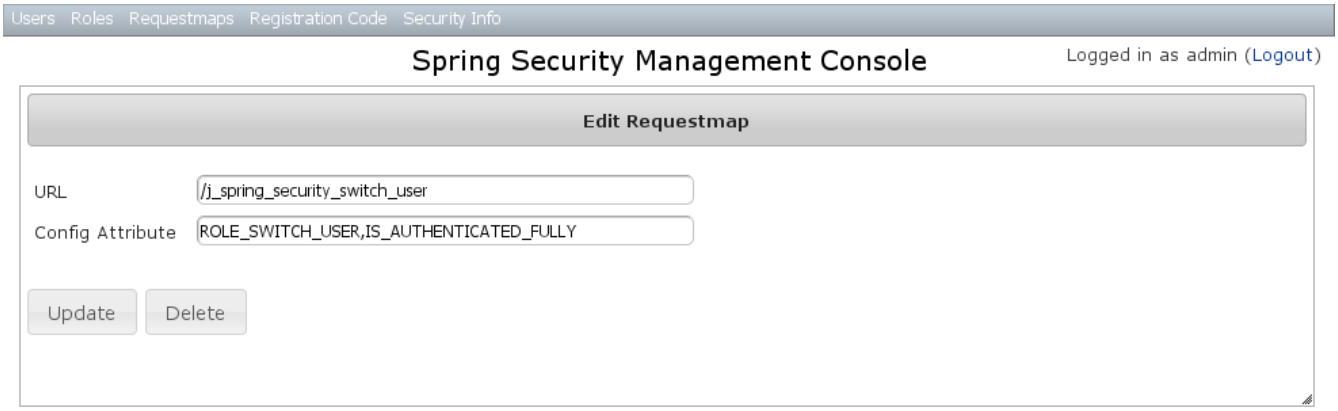


Searching is case-insensitive and the search string can appear anywhere in the field. Results are shown paginated in groups of 10 and you can click on either header to sort by that field:



4.2. Requestmap edit

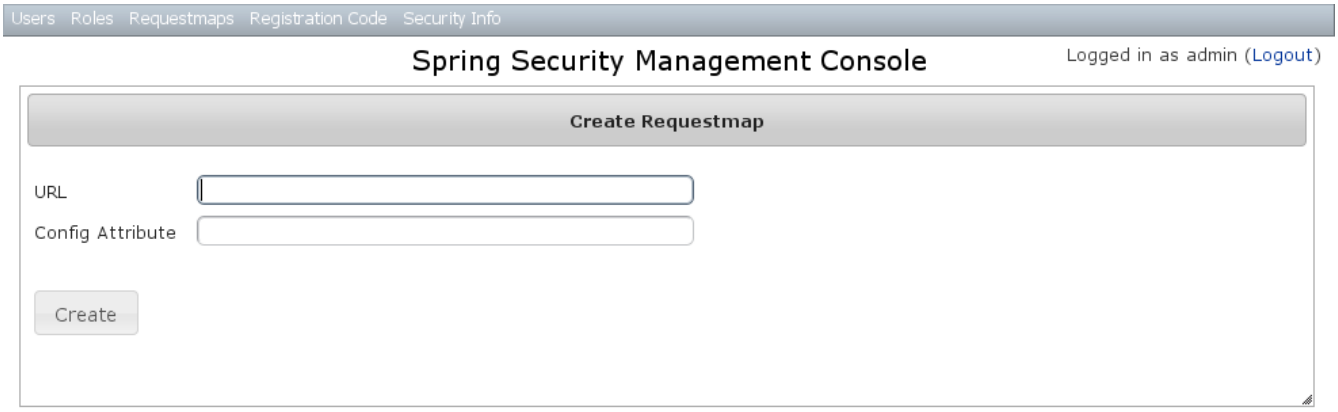
After clicking through to a Requestmap you get to the edit page (there are no view pages):



You can update any of the attributes or delete the Requestmap. Editing or deleting a Requestmap resets the cache of loaded instances, so your changes will take effect immediately.

4.3. Requestmap creation

You can create new Requestmaps by going to `/requestmap/create` or by clicking the `Create` action in the `Requestmaps` menu.

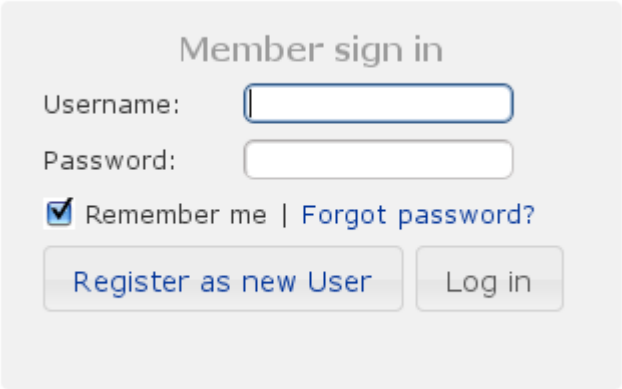


Creating a Requestmap resets the cache of loaded instances, so your changes will take effect immediately.

Chapter 5. User Registration

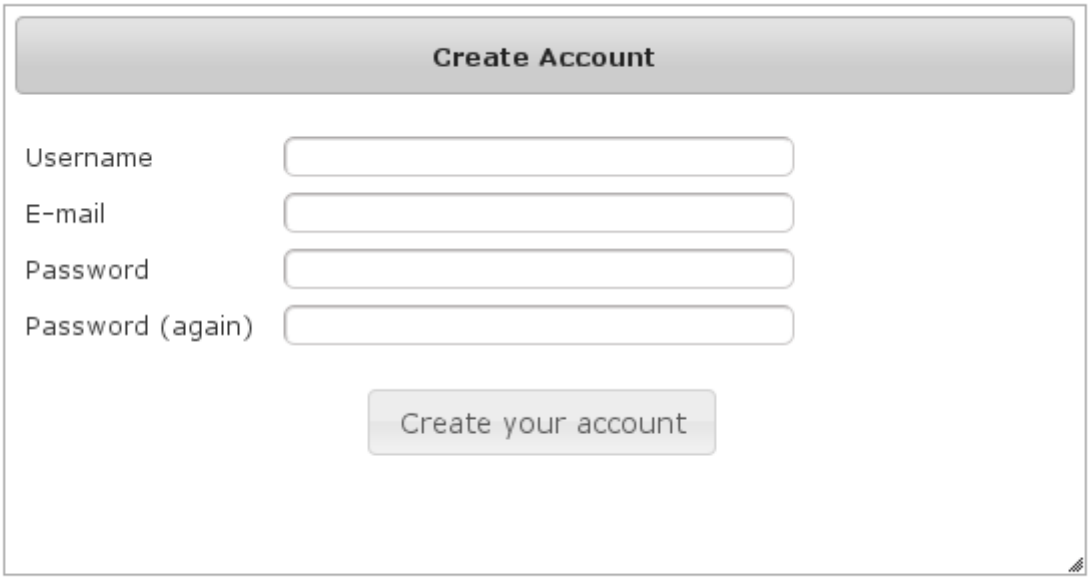
Most of the plugin's controllers are intended to be part of a backend admin application, but the Registration and Forgot Password workflows are expected to be user-facing. So they're not available in the admin menu like the User, Role, and other backend functionality - you'll need to expose them to your users.

One way to do this is to replace the default `login.gsp` that's provided by the Spring Security Core plugin with this plugin's version. You can do this by running `grails s2ui-override auth` - s2ui-override script - see the Customization section for details. If you do this your users will have links to both workflows from the login screen:

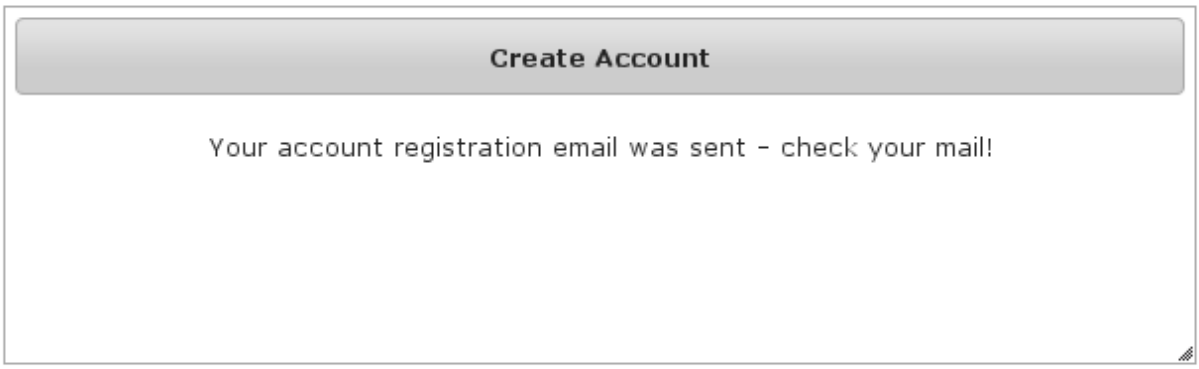


5.1. Registration

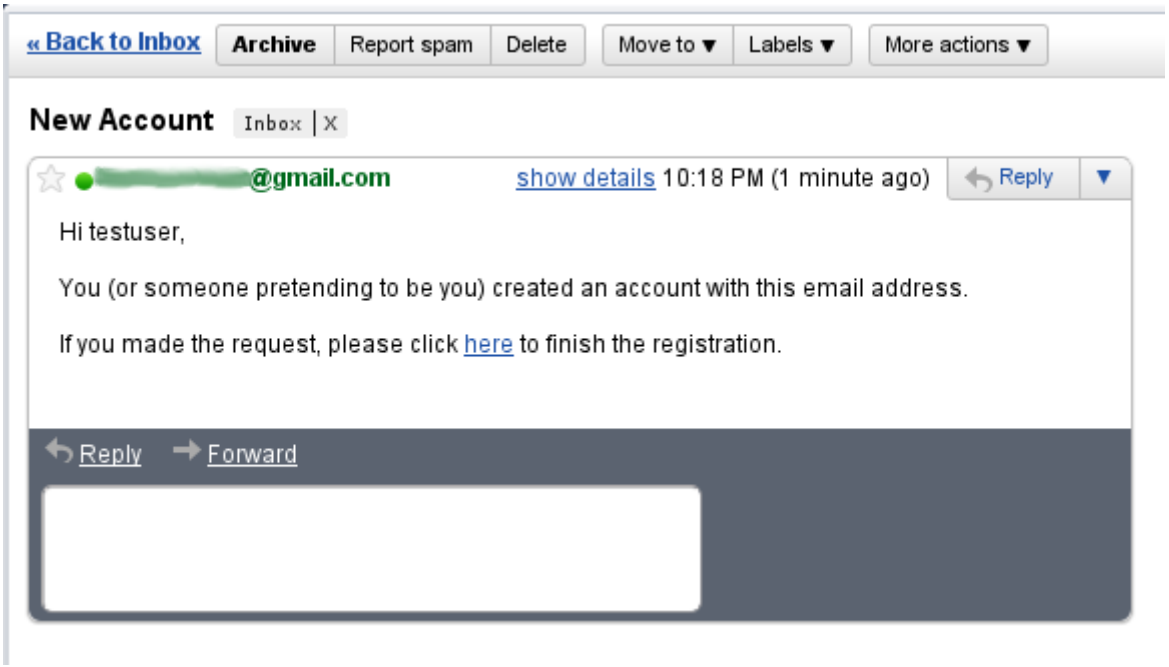
Navigate to `/register/`:



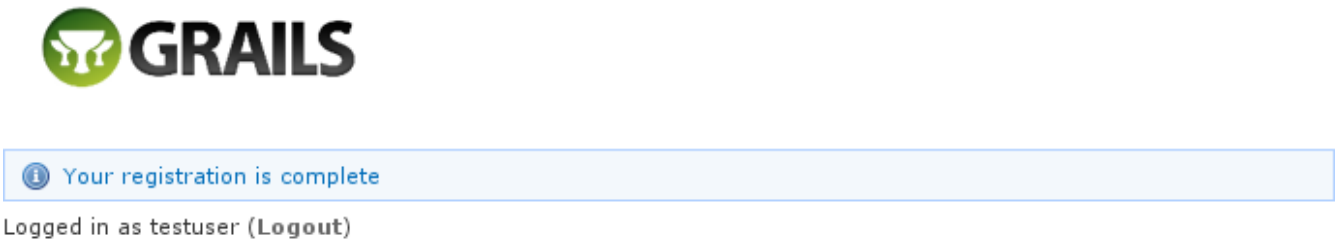
After filling out valid values an email will be sent and you'll see a success screen:



Click on the link in the email:



and you'll finalize the process, which involves enabling the locked user and pre-authenticating, then redirecting to the configured destination:



5.2. Configuration

The post-registration destination url is configurable in `grails-app/conf/application.groovy` using the `postRegisterUrl` attribute:

```
grails.plugin.springsecurity.ui.register.postRegisterUrl = '/welcome'
```

If you don't specify a value then the `grails.plugin.springsecurity.successHandler.defaultTargetUrl` value will be used, which is `'/'` by default.

You can customize the subject, body, and from address of the registration email by overriding the default values in `grails-app/conf/application.groovy`, for example:

```
grails.plugin.springsecurity.ui.register.emailBody = '...'
grails.plugin.springsecurity.ui.register.emailFrom = '...'
grails.plugin.springsecurity.ui.register.emailSubject = '...'
```

The `emailBody` property should be a GString and will have the User domain class instance in scope in the `user` variable, and the generated url to click to finalize the signup in the `url` variable.

In addition, each new user will be granted `ROLE_USER` after finalizing the registration. If you want to change the default role, add more, or grant no roles at all (for example if you want an admin to approve new users and explicitly enable new users) then you can customize that with the `defaultRoleNames` attribute (which is a List of Strings):

```
grails.plugin.springsecurity.ui.register.defaultRoleNames = [] // no roles
```

or

```
grails.plugin.springsecurity.ui.register.defaultRoleNames = ['ROLE_CUSTOMER']
```

5.3. Mail configuration

By default the plugin uses the Mail plugin to send emails, but only if it installed. This is configurable by registering your own `MailStrategy` implementation - see [the section on configuration|guide:customization] for more information. The plugin assumes that the Mail plugin and an SMTP server are already configured.

5.4. Notes

You should consider the registration code as starter code - every signup workflow will be different, and this should help you get going but is unlikely to be sufficient. You may wish to collect more information than just username and email - first and last name for example. Run `grails s2ui-override register` to copy the registration controller and GSPs into your application to be customized.

If there are unexpected validation errors during registration (which can happen when there is a disconnect between the domain classes and the code in `RegisterController` they will be logged at the `warn` or `error` level, so enable logging to ensure that you see the messages, e.g.

```
...
logger 'grails.plugin.springsecurity.ui.SpringSecurityUiService', WARN
...
```

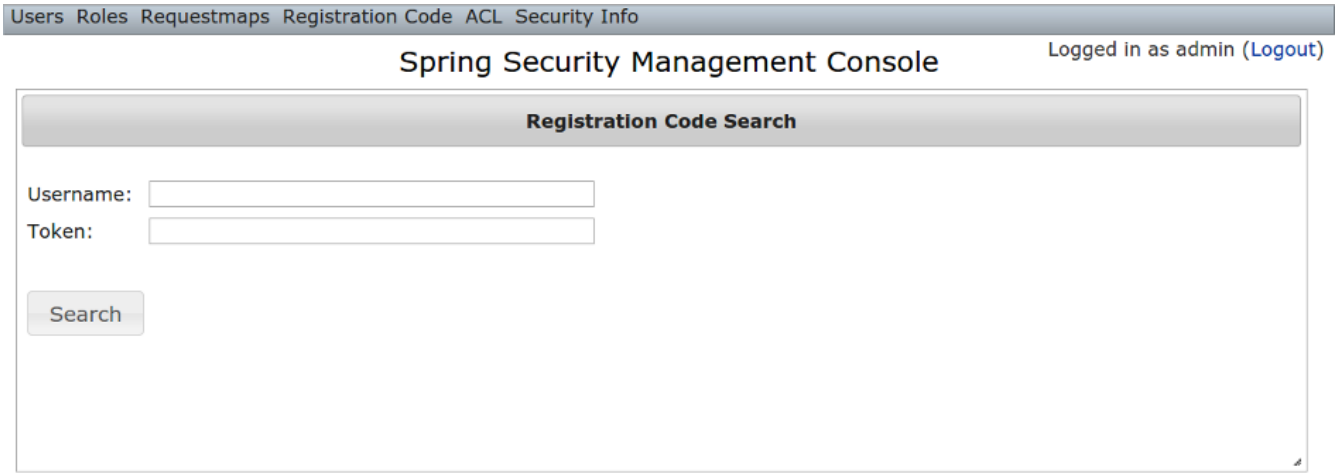
`RegisterController` and its GSPs assume that your User domain class has an `email` field. Be sure to either rework the workflow (using the `s2ui-override` script) if you don't need an email confirmation step or add an email field.

5.5. RegistrationCode search

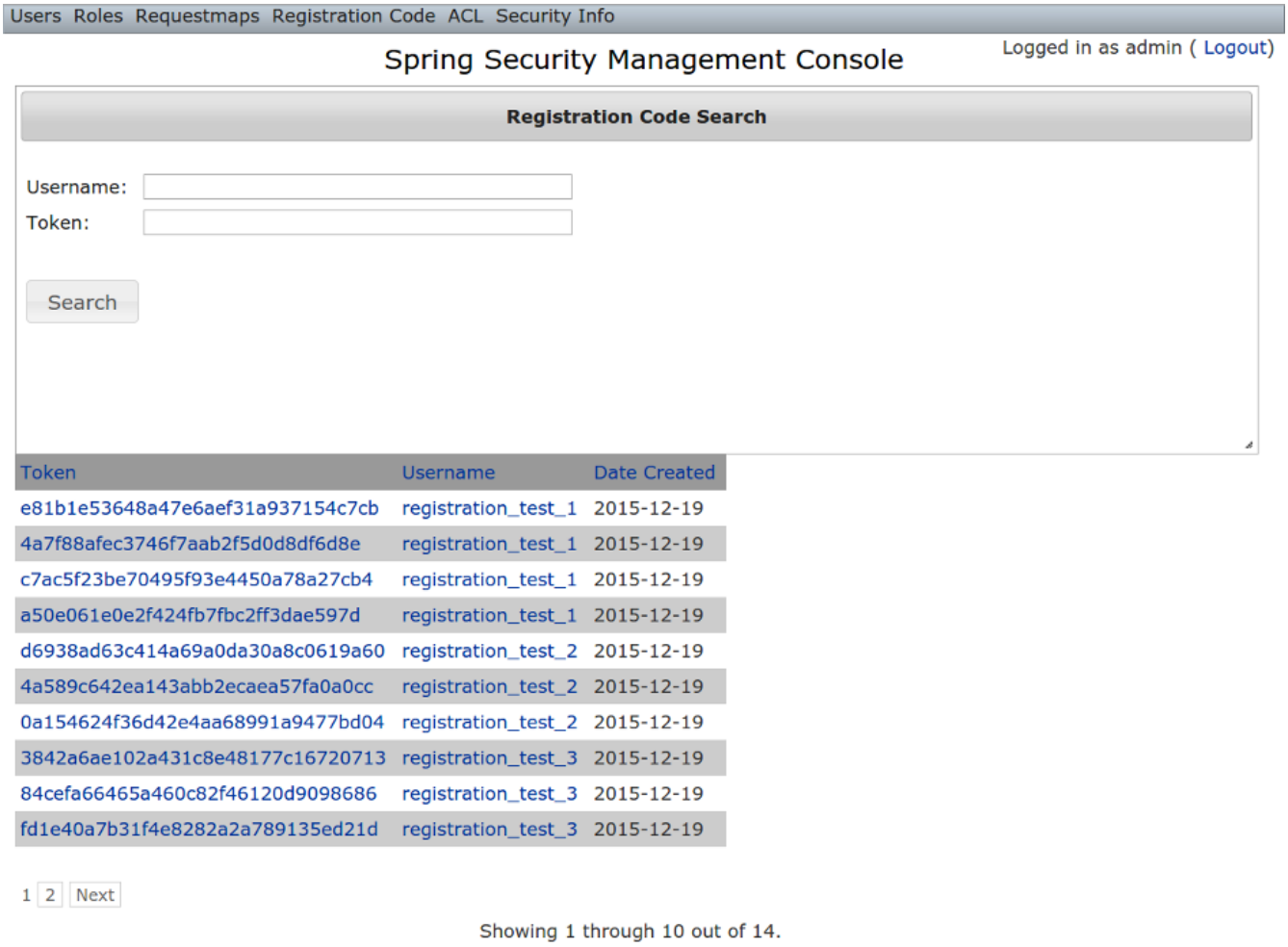
The plugin uses its `grails.plugin.springsecurity.ui.RegistrationCode` domain class to store a token associated with the new users' username for use when finishing the registration process after the user clicks the link in the generated email (and also as part of the forgot-password workflow). The plugin includes a controller and GSPs to manage these instances.

The default action for the RegistrationCode controller is search. By default only the standard fields (`username` and `token`) are available but this is customizable with the s2ui-override script - see the Customization section for details.

You can search by any combination of fields, and both fields have an Ajax autocomplete to assist in finding instances. Leave both fields empty to return all instances.

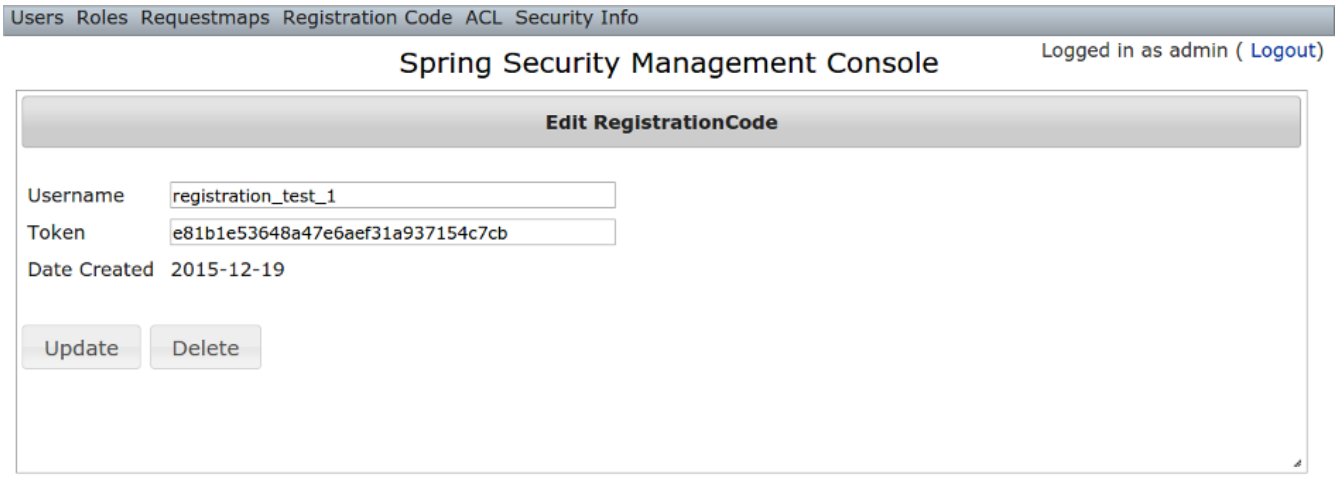


Searching is case-insensitive and the search string can appear anywhere in the field. Results are shown paginated in groups of 10 and you can click on any header to sort by that field:



5.6. RegistrationCode edit

After clicking through to a RegistrationCode you get to the edit page (there are no view pages):



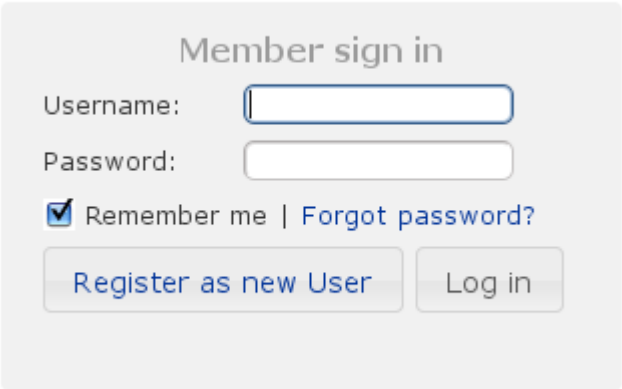
You can update the `username` or `token` attribute or delete the RegistrationCode.

Since instances are created during the "User Registration" and "Forgot Password" workflows, there is no functionality in this plugin to create new instances.

Chapter 6. Forgot Password

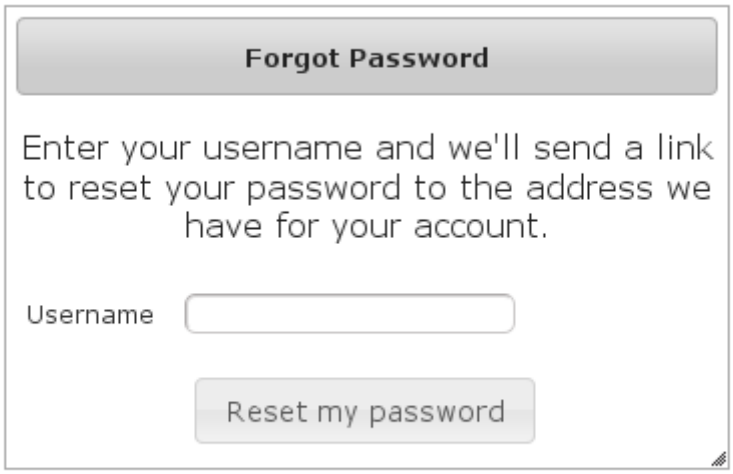
Like the Registration workflow, the Forgot Password workflow is expected to be user-facing. So it's not available in the admin menu like the User, Role, and other backend functionality - you'll need to expose them to your users.

One way to do this is to replace the default `login.gsp` that's provided by the Spring Security Core plugin with this plugin's version. You can do this by running `grails s2ui-override auth` - see the section on Customization for more details. If you do this your users will have links to both workflows from the login screen:

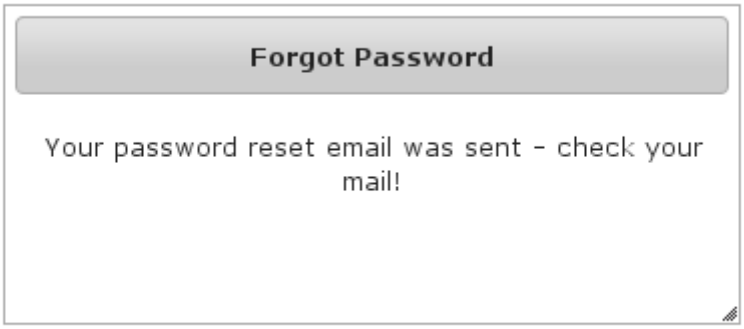


6.1. Forgot Password

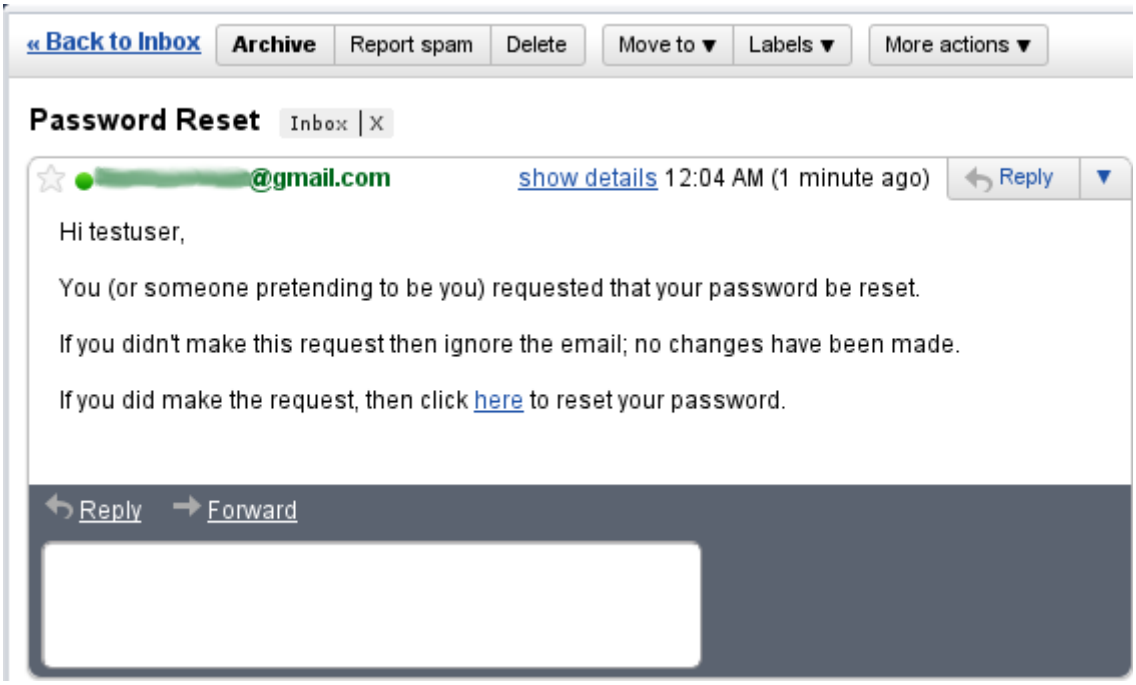
Navigate to `/register/forgotPassword`:



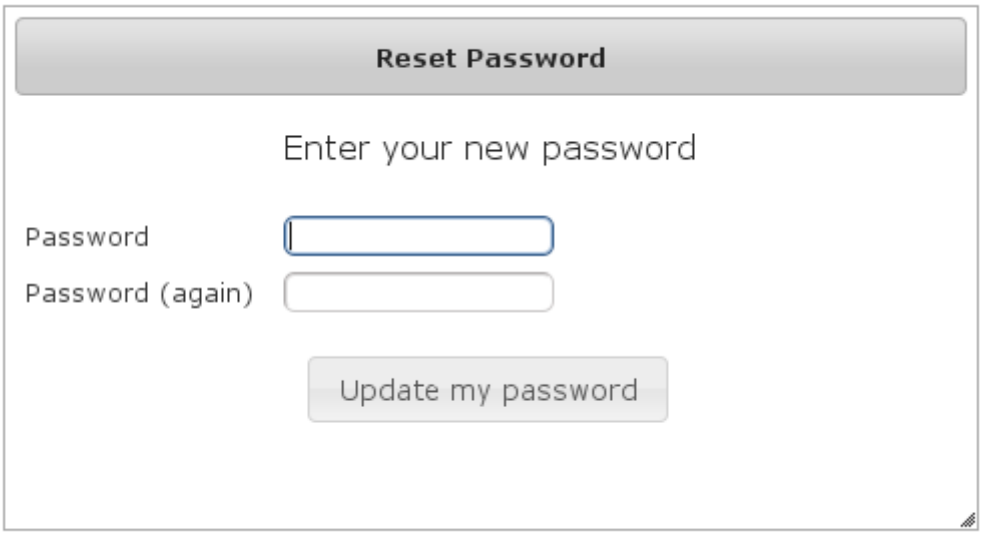
After entering a valid username an email will be sent and you'll see a success screen:



Click on the link in the email:

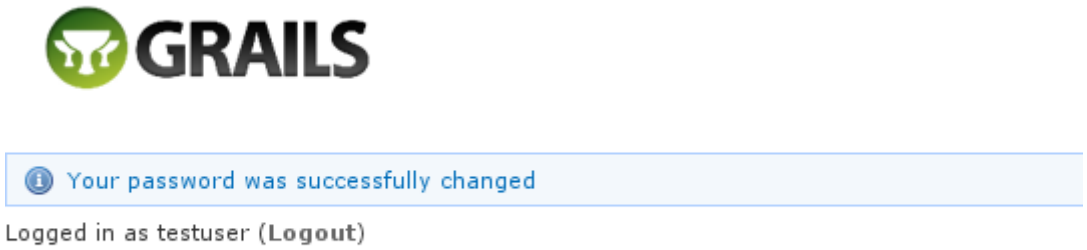


and you'll open the reset password form:



After entering a valid password you'll finalize the process, which involves storing the new

password hashed in the user table and pre-authenticating, then redirecting to the configured destination:



6.2. Configuration

The post-reset destination url is configurable in `grails-app/conf/application.groovy` using the `postResetUrl` attribute:

```
grails.plugin.springsecurity.ui.forgotPassword.postResetUrl = '/reset'
```

If you don't specify a value then the `defaultTargetUrl` value will be used, which is `'/'` by default.

You can customize the subject, body, and from address of the reset email by overriding the default values in `grails-app/conf/application.groovy`, for example:

```
grails.plugin.springsecurity.ui.forgotPassword.emailBody = '...'
grails.plugin.springsecurity.ui.forgotPassword.emailFrom = '...'
grails.plugin.springsecurity.ui.forgotPassword.emailSubject = '...'
```

The `emailBody` property should be a GString and will have the User domain class instance in scope in the `user` variable, and the generated url to click to reset the password in the `url` variable.

6.3. Mail configuration

By default the plugin uses the Mail plugin to send emails, but only if it installed. This is configurable by registering your own `MailStrategy` implementation - see [the section on configuration|guide:customization] for more information. The plugin assumes that the Mail plugin and an SMTP server are already configured.

6.4. Notes

Like the registration code, consider this workflow as starter code. Run `grails s2ui-override register` to copy the registration controller and GSPs into your application to be customized.

`RegisterController` and its GSPs assume that your User domain class has an `email` field.

Chapter 7. ACL Management

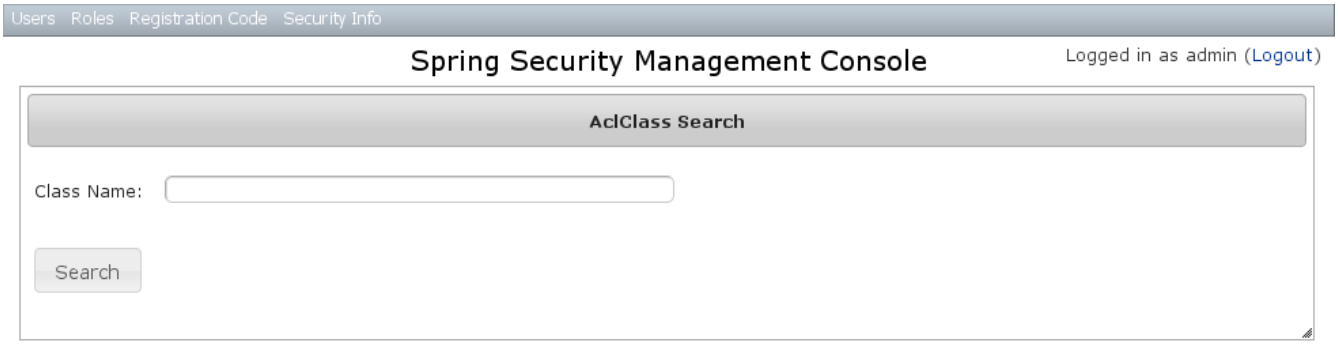
ACL management should be done using the API exposed by `AclService` and `AclUtilService`. Both services have a much more intuitive and convenient high-level approach to managing ACLs, ACEs, etc. The functionality in this plugin is to provide a CRUD interface for fine-grained ACL management.

The ACL menu is only available if the ACL plugin is installed.

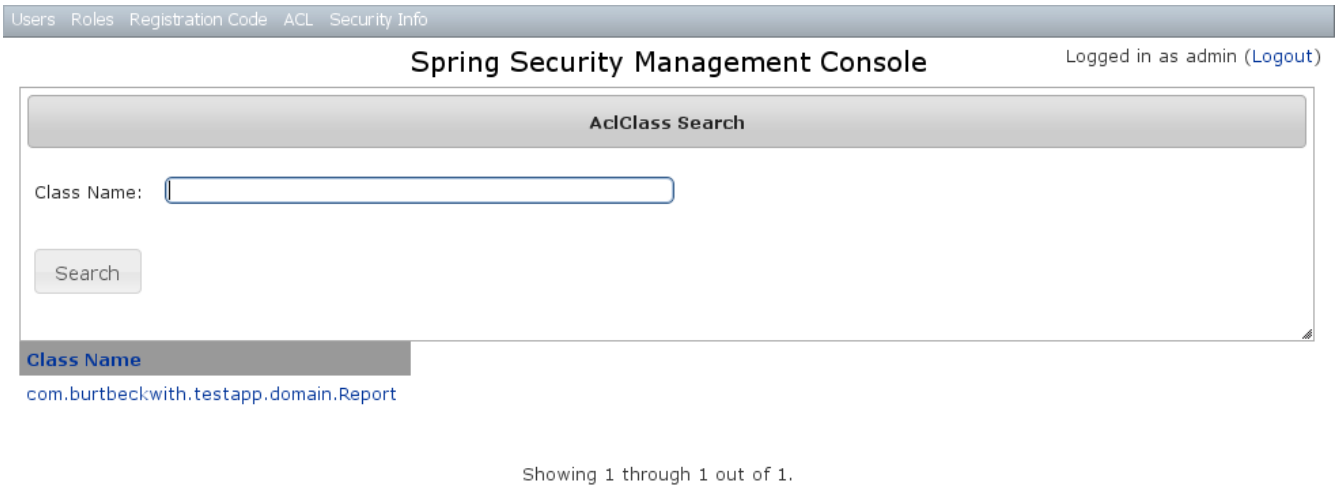
7.1. AclClass Management

The default action for the AclClass controller is search. By default only the standard fields are available but this is customizable with the s2ui-override script - see the Customization section for details.

The `className` field has an Ajax autocomplete to assist in finding instances. Leave the field empty to return all instances.



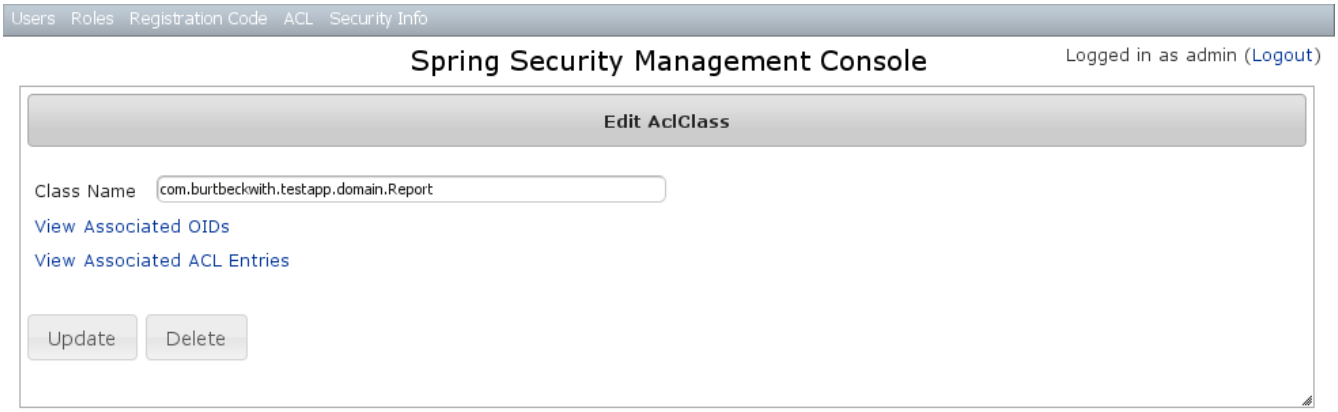
Searching is case-insensitive and the search string can appear anywhere in the field. Results are shown paginated in groups of 10 and you can click on the `className` column header to sort the results by that field:



Showing 1 through 1 out of 1.

7.1.1. AclClass Edit

After clicking through an AclClass you get to the edit page (there are no view pages):

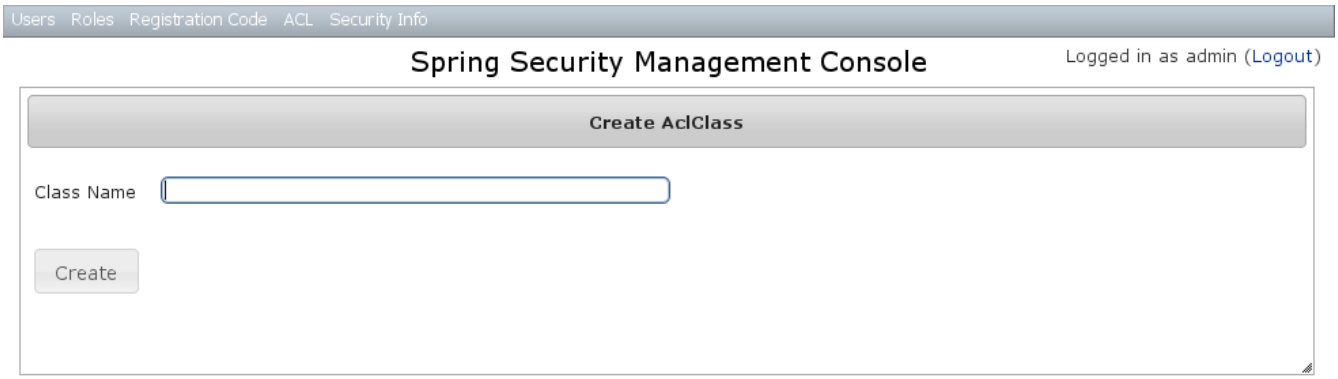


You can update the name, and delete the instance if there aren't any associated `AclObjectIdentity` or `AclEntry` instances - by default there is no support for cascading.

You can also see the associated `AclObjectIdentity` instances (OIDs) or `AclEntry` instances.

7.1.2. AclClass Create

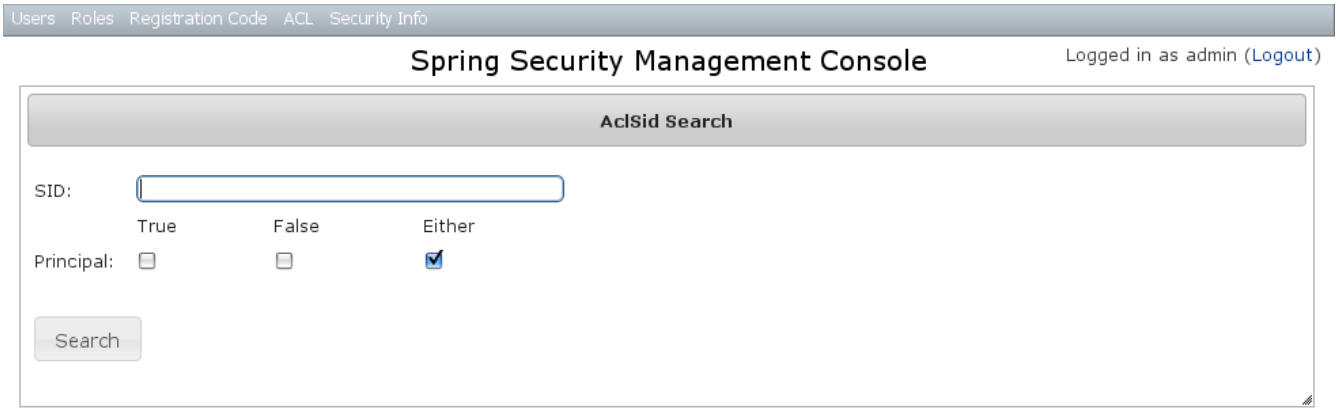
You can create new instances by going to `/aclClass/create` or by clicking the `Create` action in the `Class` menu under `ACL`.



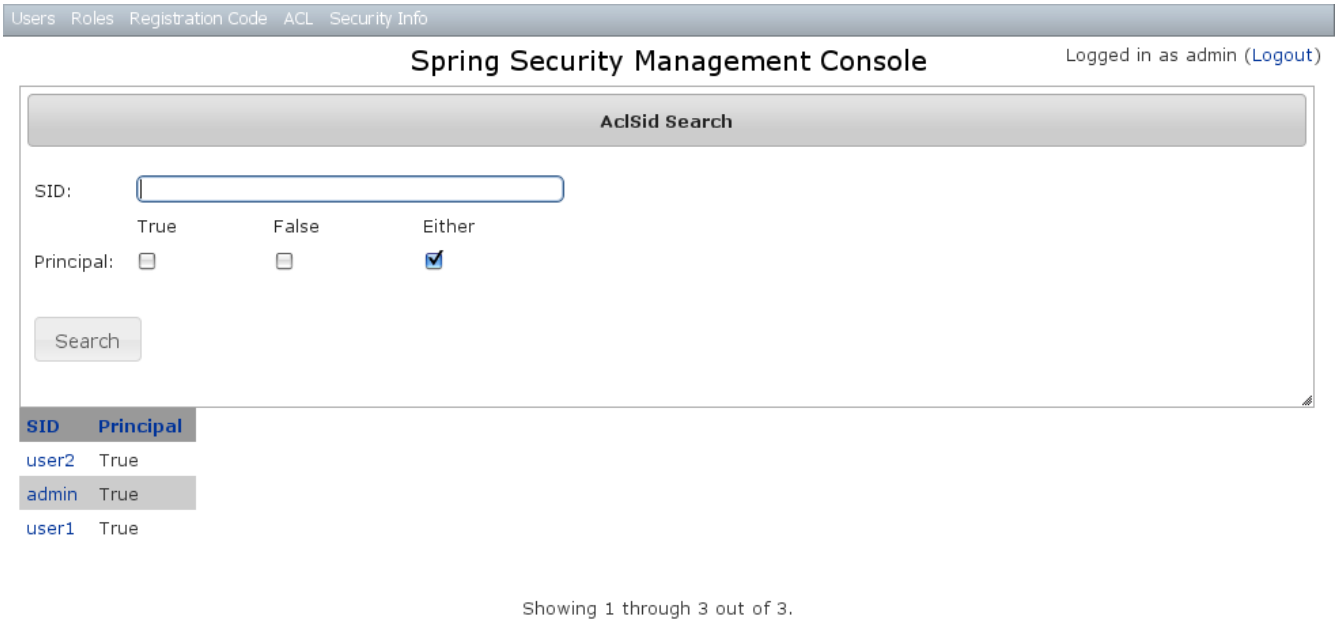
7.2. AclSid Management

The default action for the AclSid controller is search. By default only the standard fields are available but this is customizable with the s2ui-override script - see the Customization section for details.

The `sid` field has an Ajax autocomplete to assist in finding instances. Leave the field empty and `principal` set to Either to return all instances.

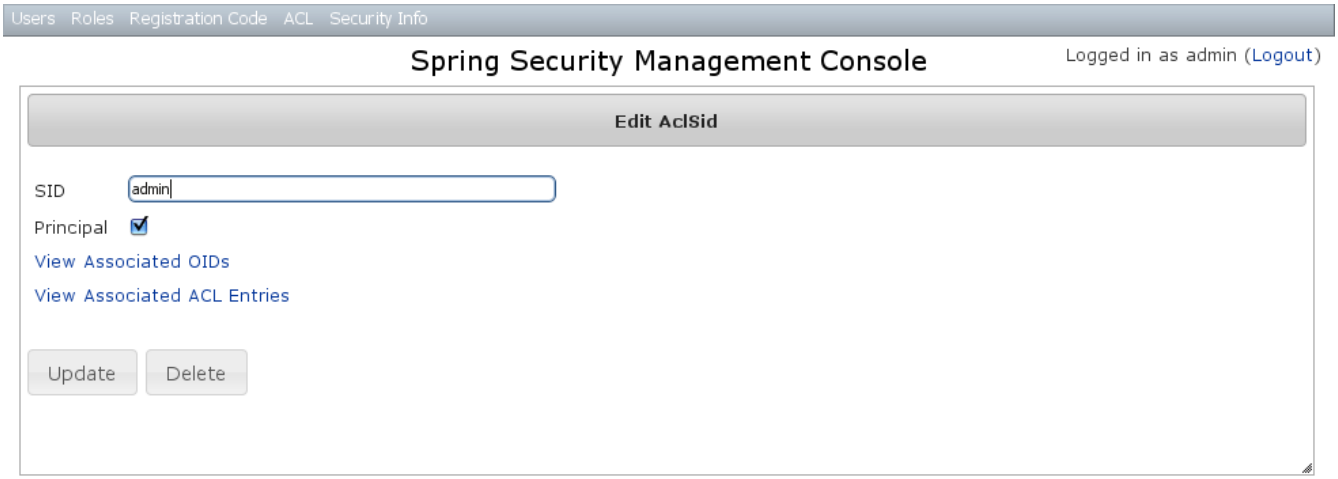


Results are shown paginated in groups of 10. The column headers are clickable and will sort the results by that field:



7.2.1. AclSid Edit

After clicking through to a sid you get to the edit page (there are no view pages):



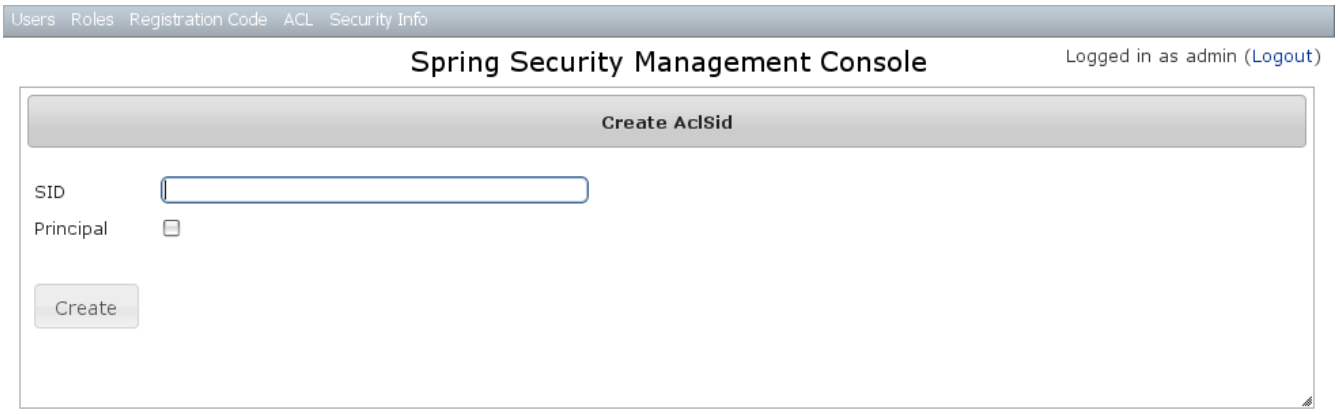
You can update the name and whether it's a Principal sid or a Role sid, and delete the instance if there aren't any associated `AclObjectIdentity` or `AclEntry` instances - by default there is no support

for cascading.

You can also see the associated `AclObjectIdentity` instances (OIDs) or `AclEntry` instances.

7.2.2. AclSid Create

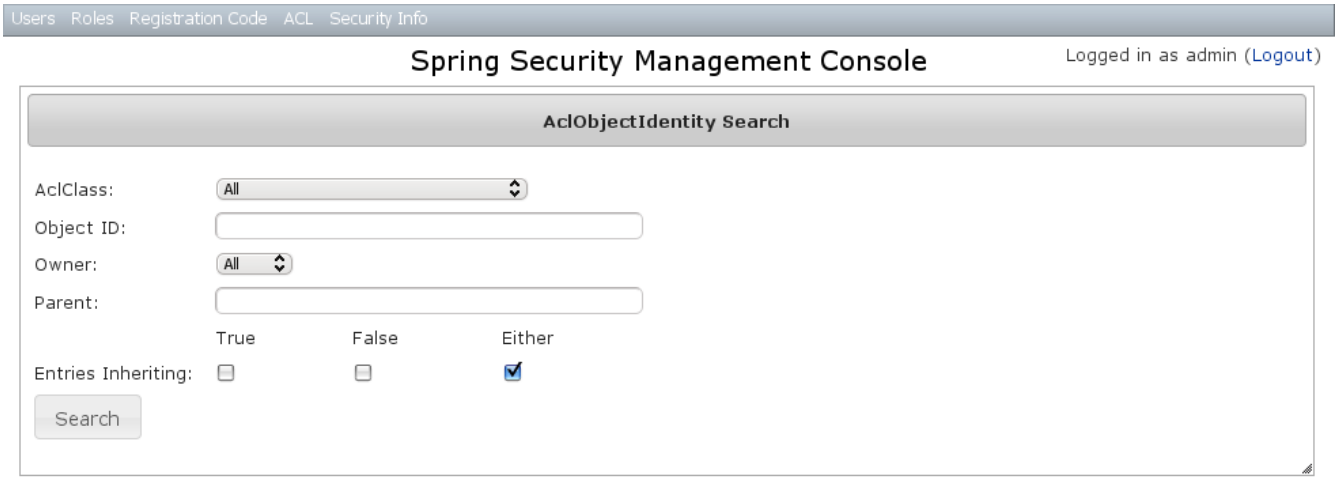
You can create new instances by going to `/aclSid/create` or by clicking the `Create` action in the `SID` menu under `ACL`.



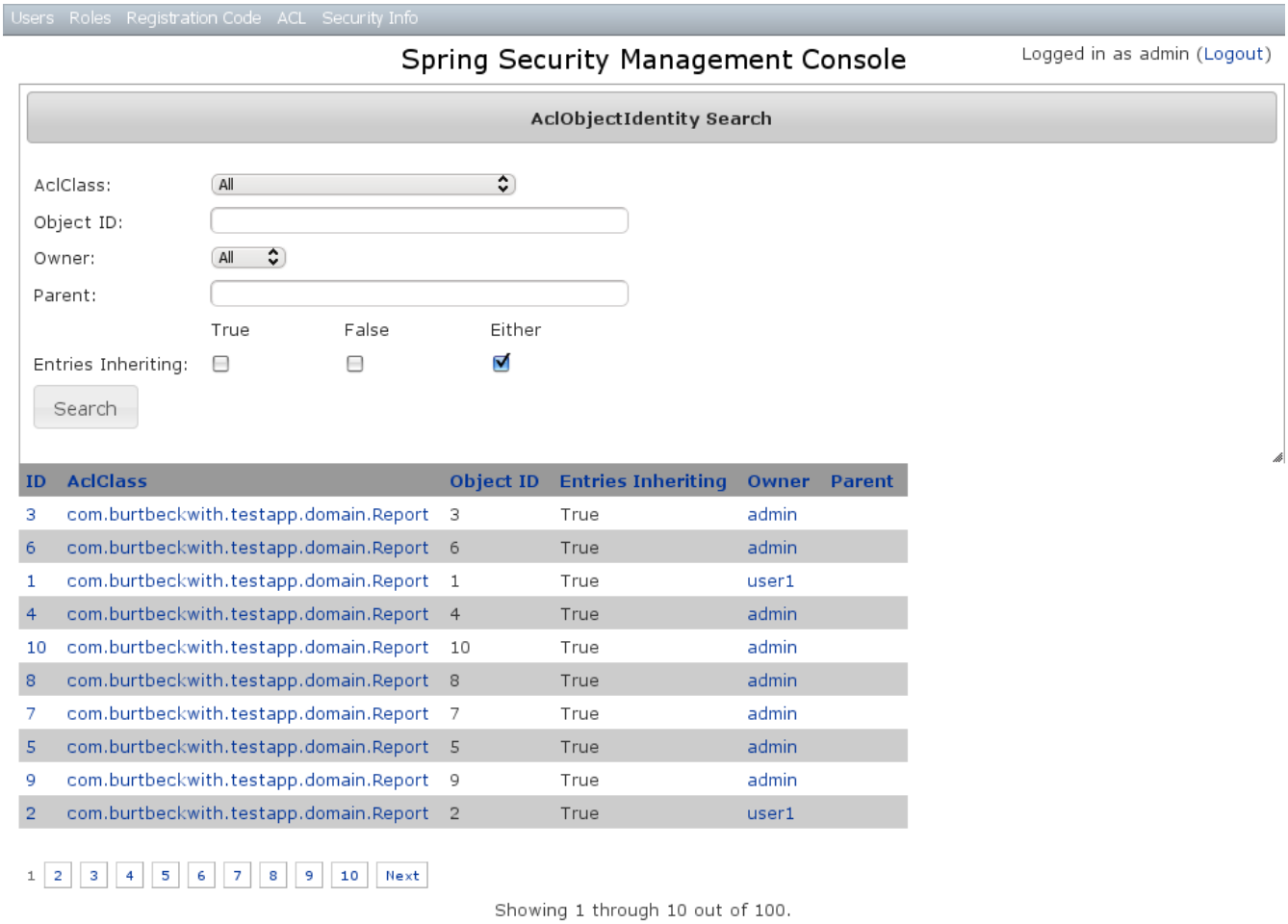
7.3. AclObjectIdentity Management

The default action for the AclObjectIdentity controller is search. By default only the standard fields are available but this is customizable with the s2ui-override script - see the Customization section for details.

Leave all fields at their default values to return all instances.



Results are shown paginated in groups of 10 and you can click on any header to sort by that field:



7.3.1. AclObjectIdentity Edit

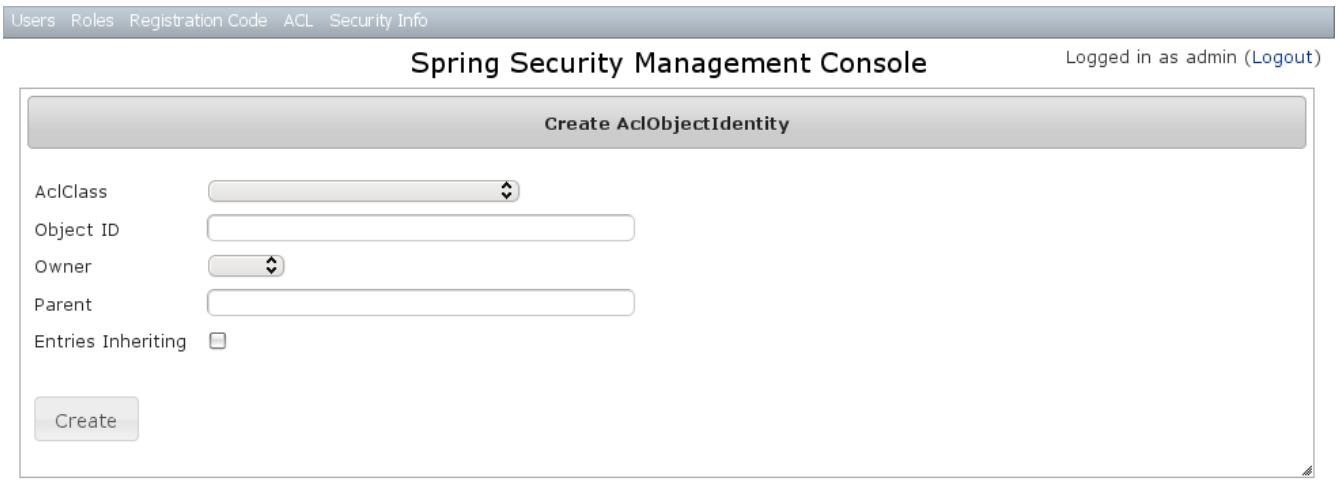
After clicking through to an AclObjectIdentity you get to the edit page (there are no view pages):

You can update any of the attributes, and can delete the instance if there aren't any associated `AclEntry` instances - by default there is no support for cascading.

You can also see the associated `AclEntry` instances.

7.3.2. AclObjectIdentity Create

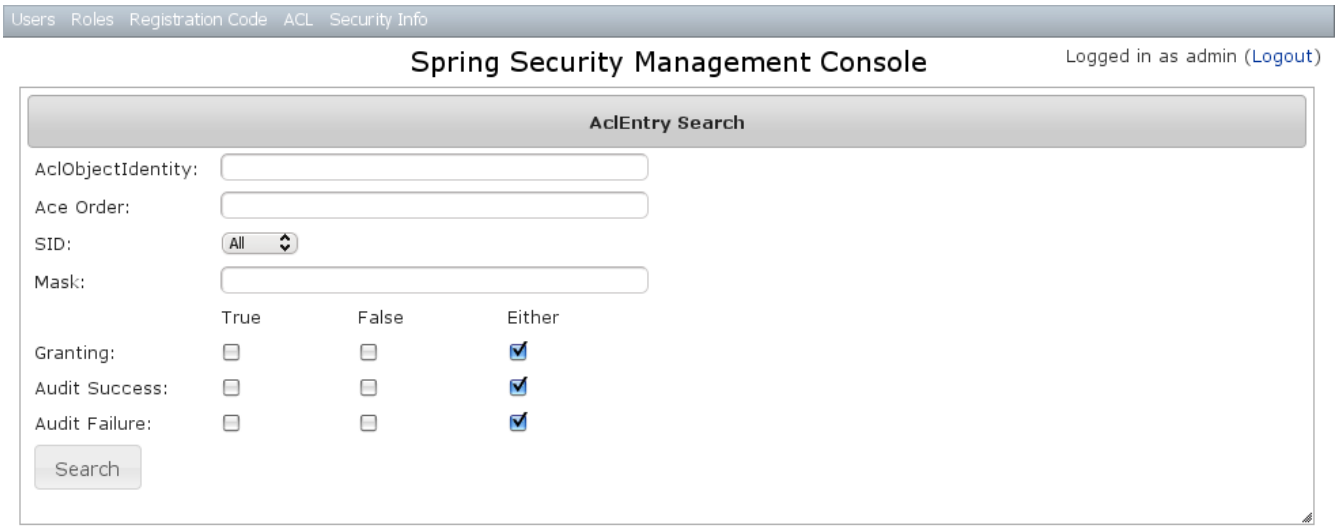
You can create new instances by going to `/aclObjectIdentity/create` or by clicking the `Create` action in the `OID` menu under `ACL`.



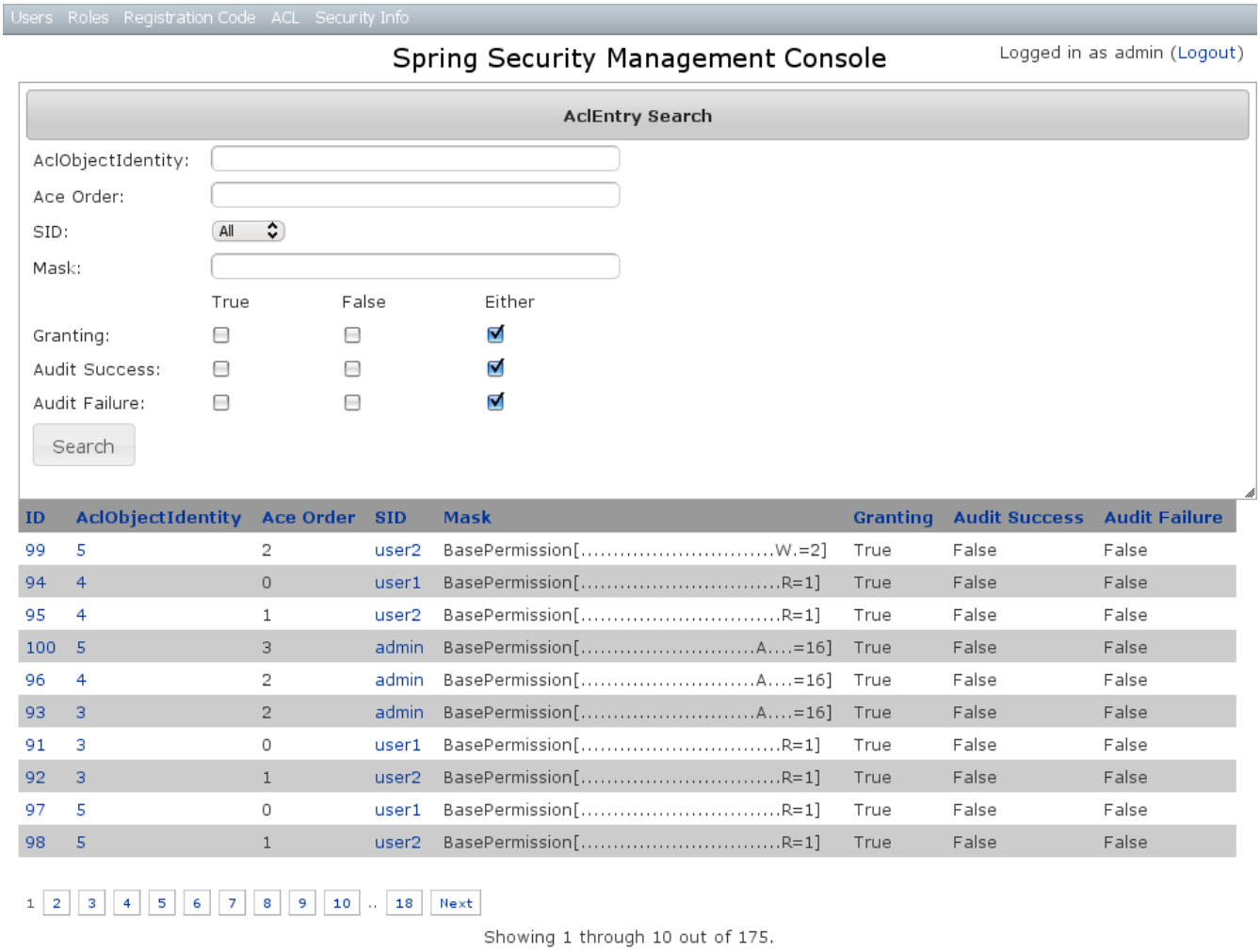
7.4. AclEntry Management

The default action for the AclEntry controller is search. By default only the standard fields are available but this is customizable with the s2ui-override script - see the Customization section for details.

Leave all fields at their default values to return all instances.

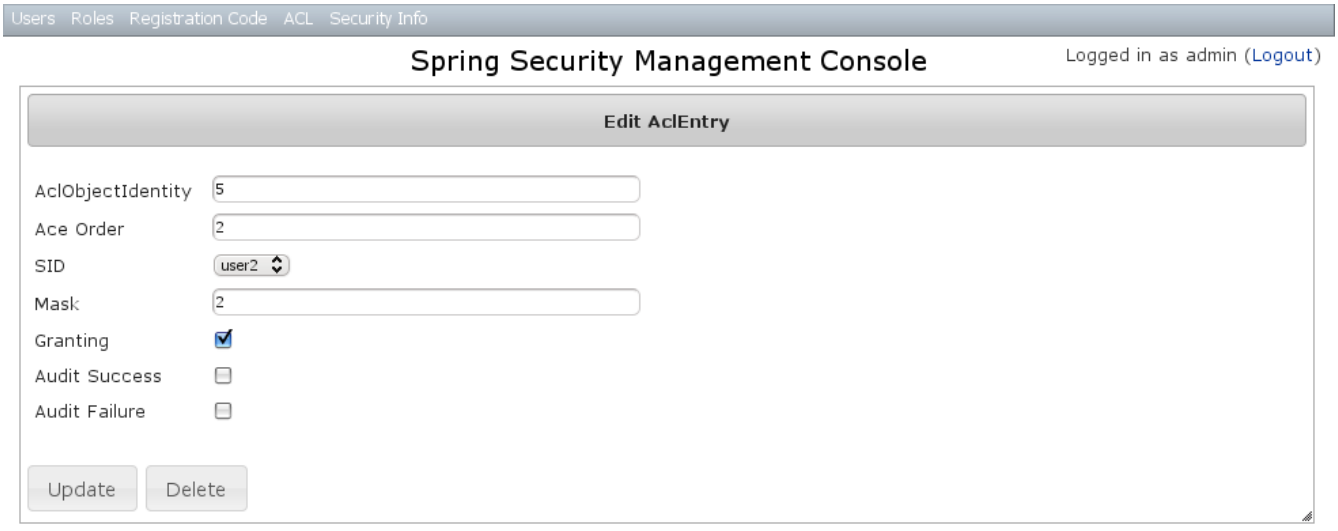


Results are shown paginated in groups of 10 and you can click on any header to sort by that field:



7.4.1. AclEntry Edit

After clicking through to an AclEntry you get to the edit page (there are no view pages):

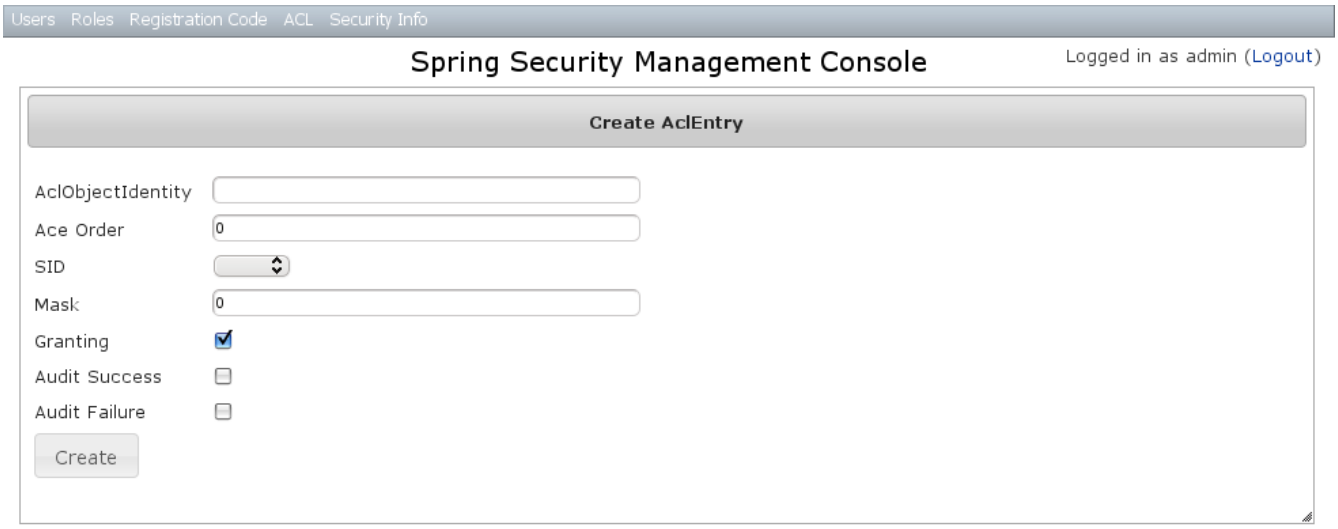


You can update any of the attributes or delete the AclEntry.

7.4.2. AclEntry Create

You can create new instances by going to `/aclEntry/create` or by clicking the `Create` action in the

`Entry` menu under `ACL`.



Chapter 8. Persistent Cookie Management

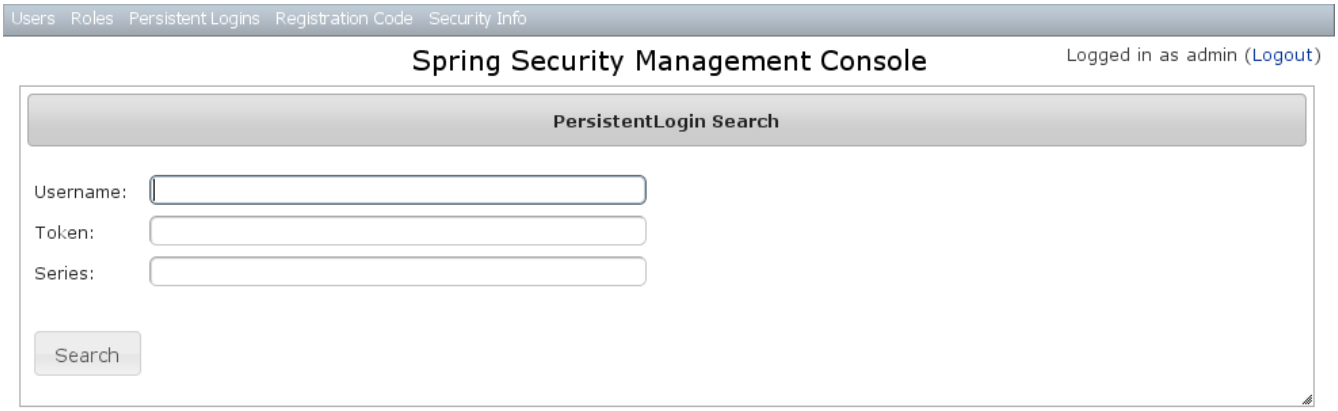
Persistent cookies aren't enabled by default - you must enable them by running the `s2-create-persistent-token` script. See the Spring Security Core plugin documentation for details about this feature.

The Persistent Logins menu is only shown if this feature is enabled.

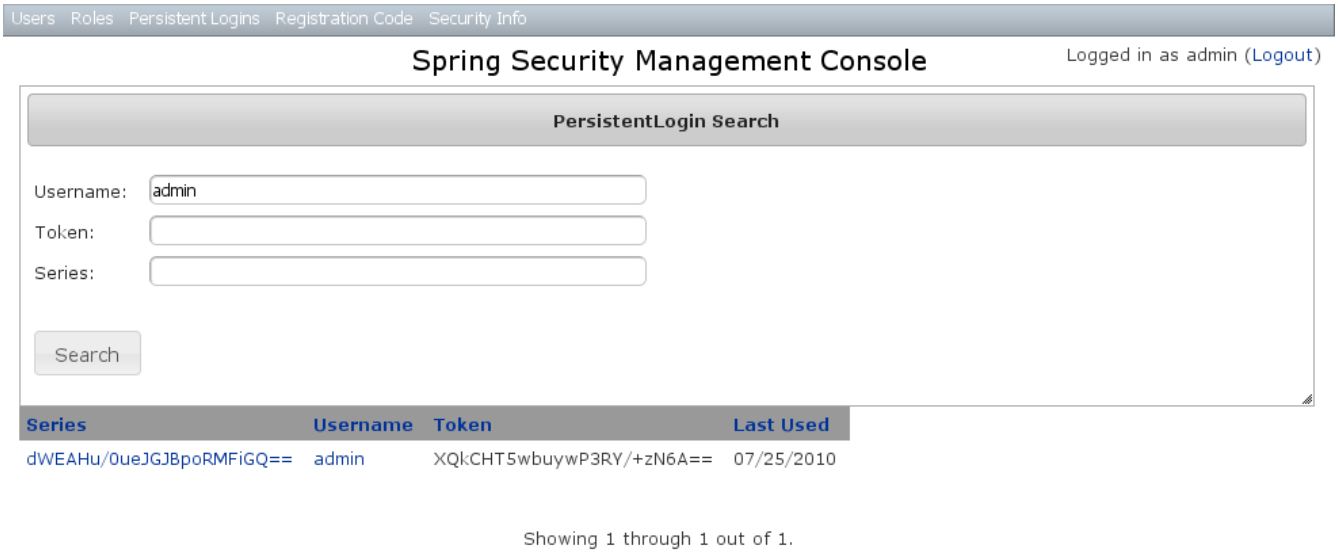
8.1. Persistent logins search

The default action for the PersistentLogin controller is search. By default only the standard fields (`username`, `token`, and `series`) are available but this is customizable with the s2ui-override script - see the Customization section for details.

You can search by any combination of fields, and all fields have an Ajax autocomplete to assist in finding instances. Leave all fields empty to return all instances.

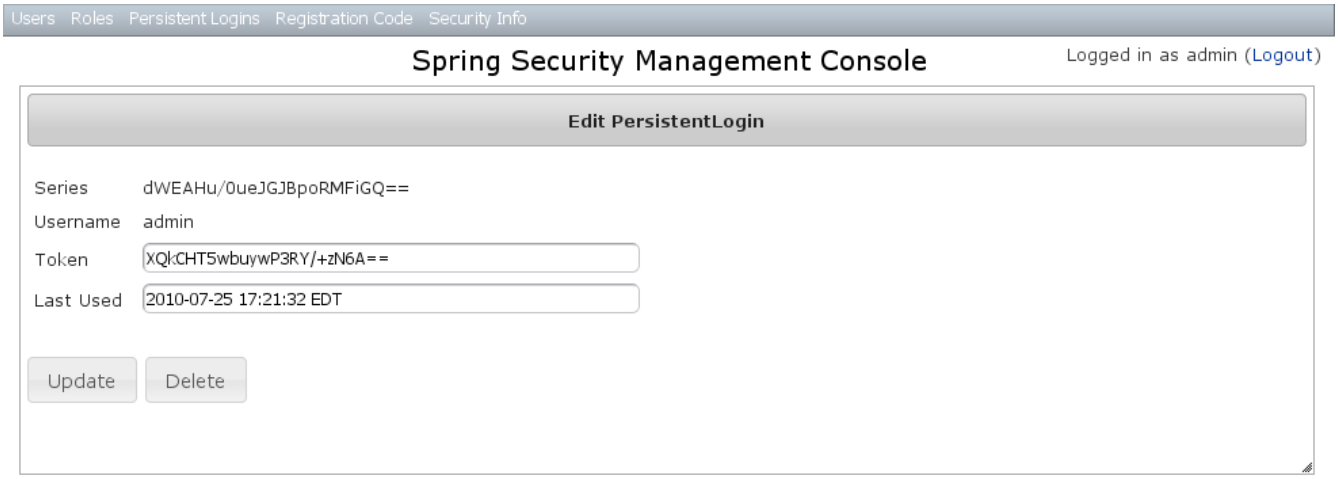


Searching is case-insensitive and the search string can appear anywhere in the field. Results are shown paginated in groups of 10 and you can click on any header to sort by that field:



8.2. Persistent logins edit

After clicking through to an instance you get to the edit page (there are no view pages):



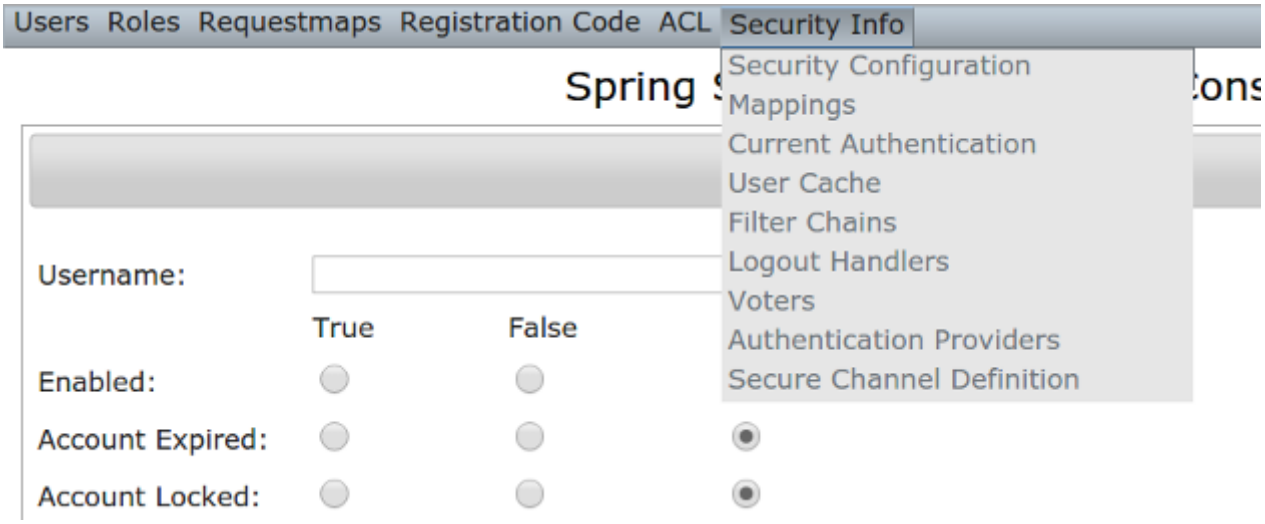
You can update the `token` or `lastUsed` attribute or delete the instance.

8.3. Persistent logins creation

Since instances are created during authentication by the spring-security-core plugin, there is no functionality in this plugin to create new instances.

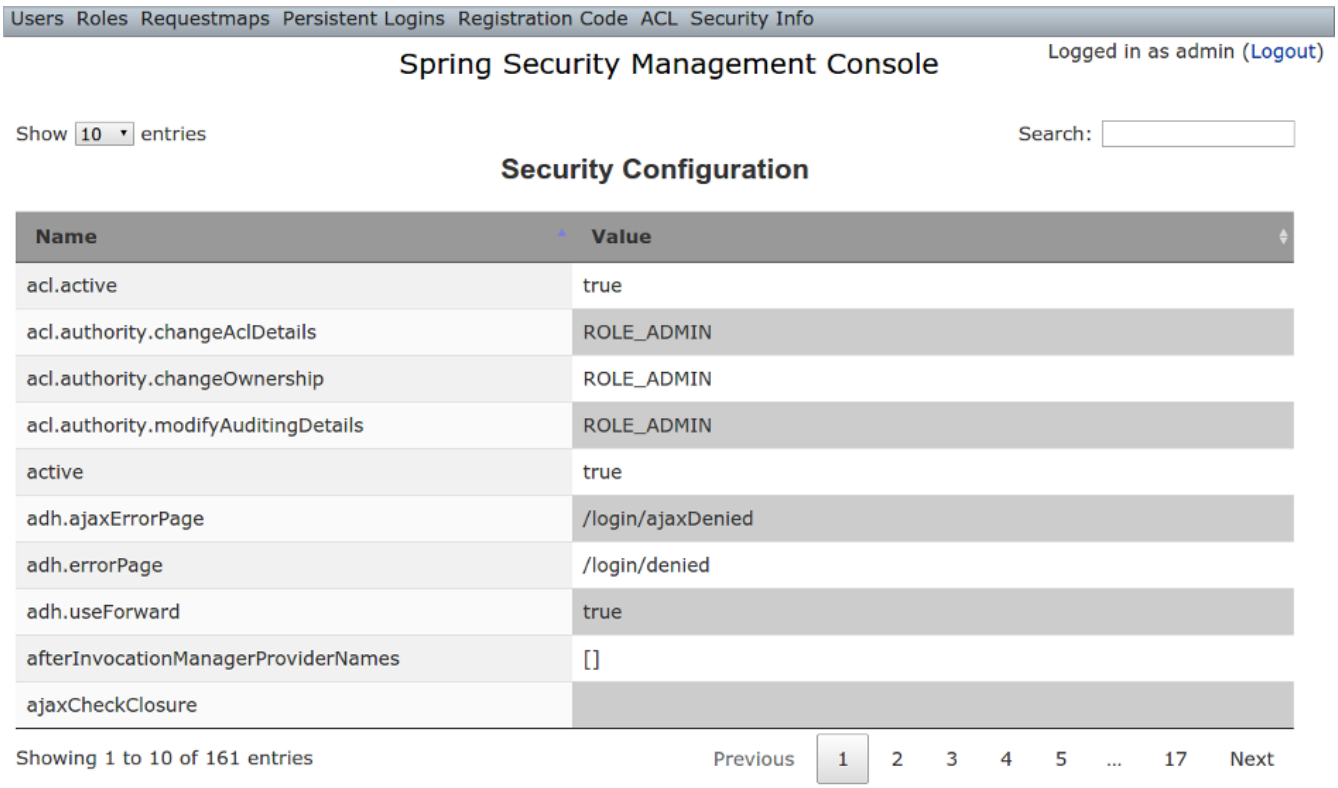
Chapter 9. Security Configuration UI

The Security Info menu has links for several pages that contain read-only views of much of the Spring Security configuration:



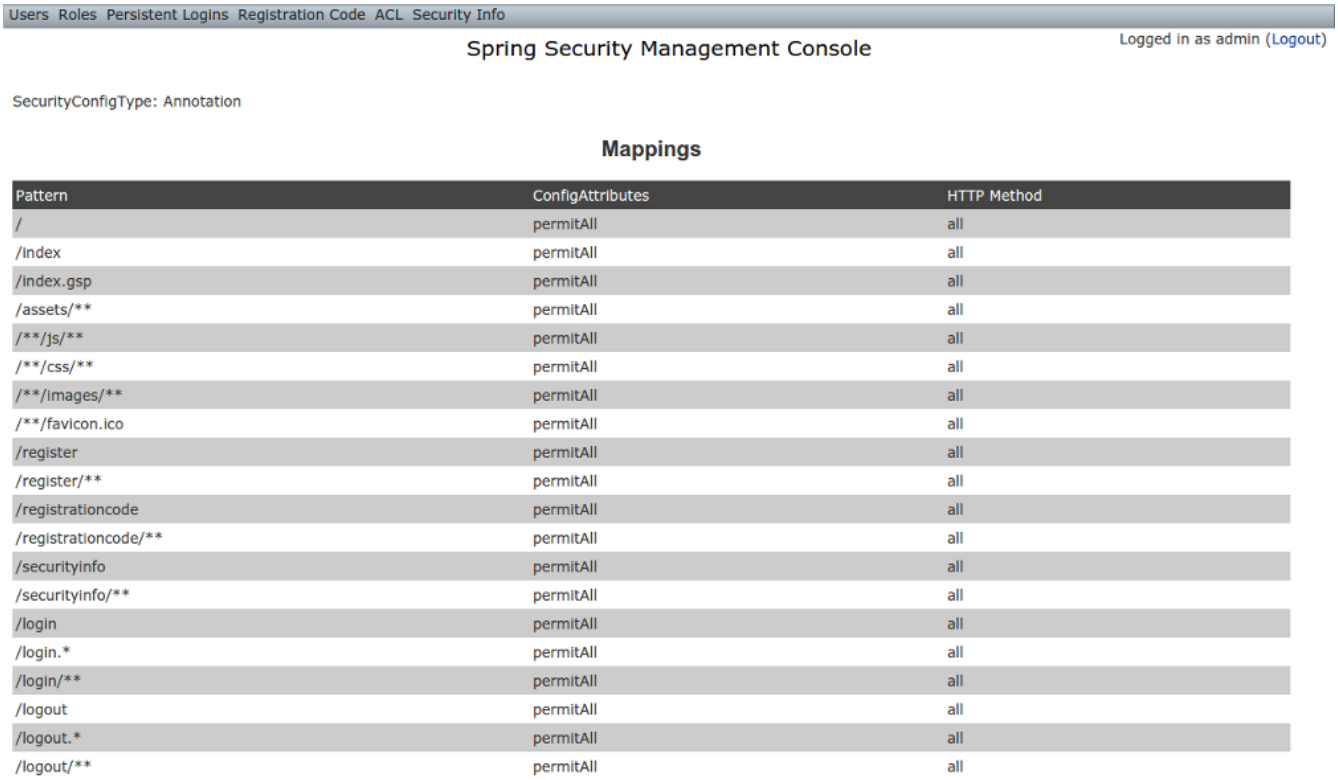
9.1. Security Configuration

The Security Configuration menu item displays all security-related attributes in `application.groovy`. The names omit the `grails.plugin.springsecurity` prefix:



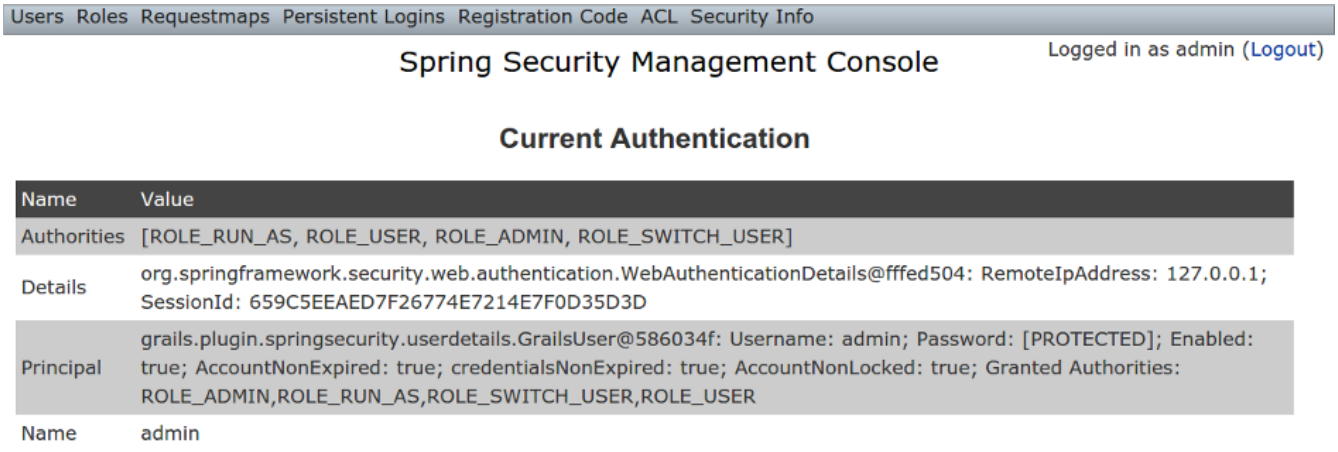
9.2. Mappings

The Mappings menu item displays the current request mapping mode (Annotation, Requestmap, or Static) and all current mappings:



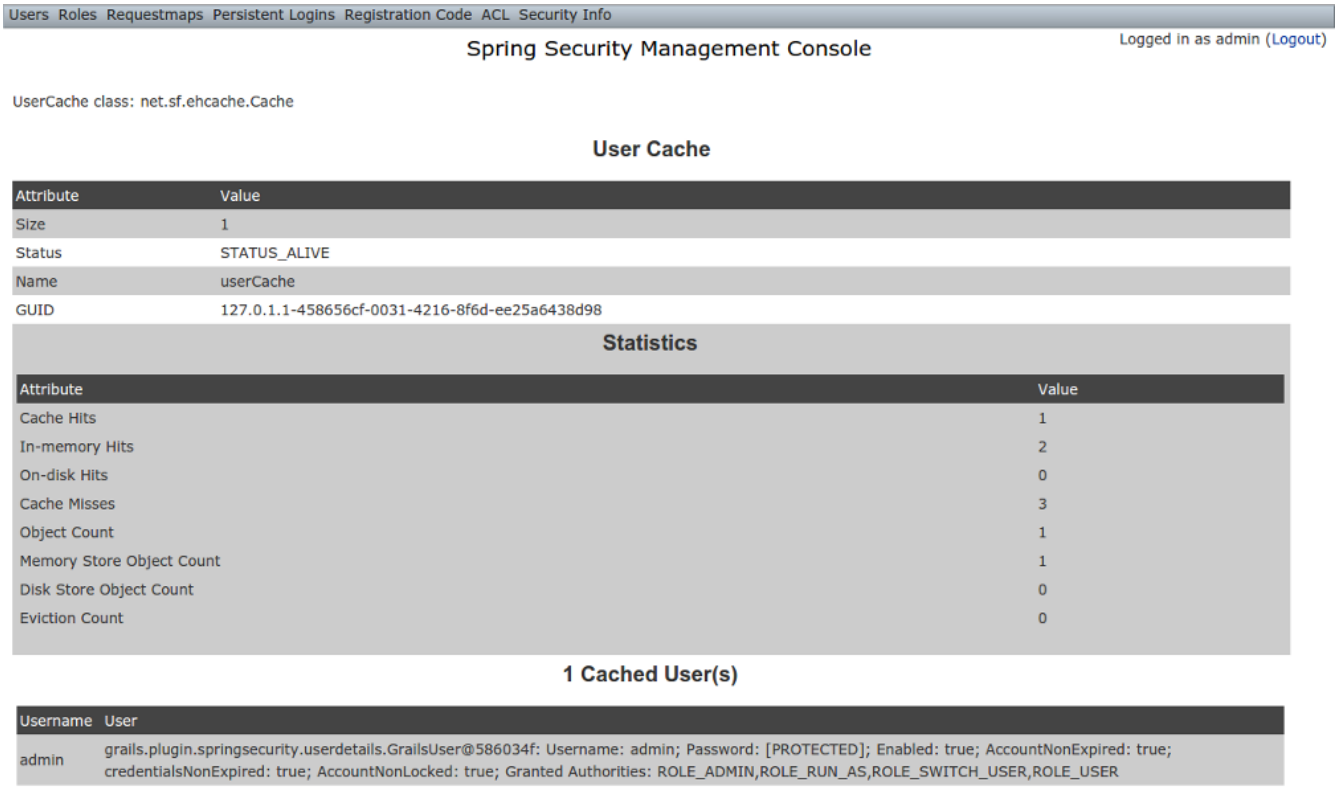
9.3. Current Authentication

The Current Authentication menu item displays your `Authentication` information, mostly for reference to see what a typical one contains:



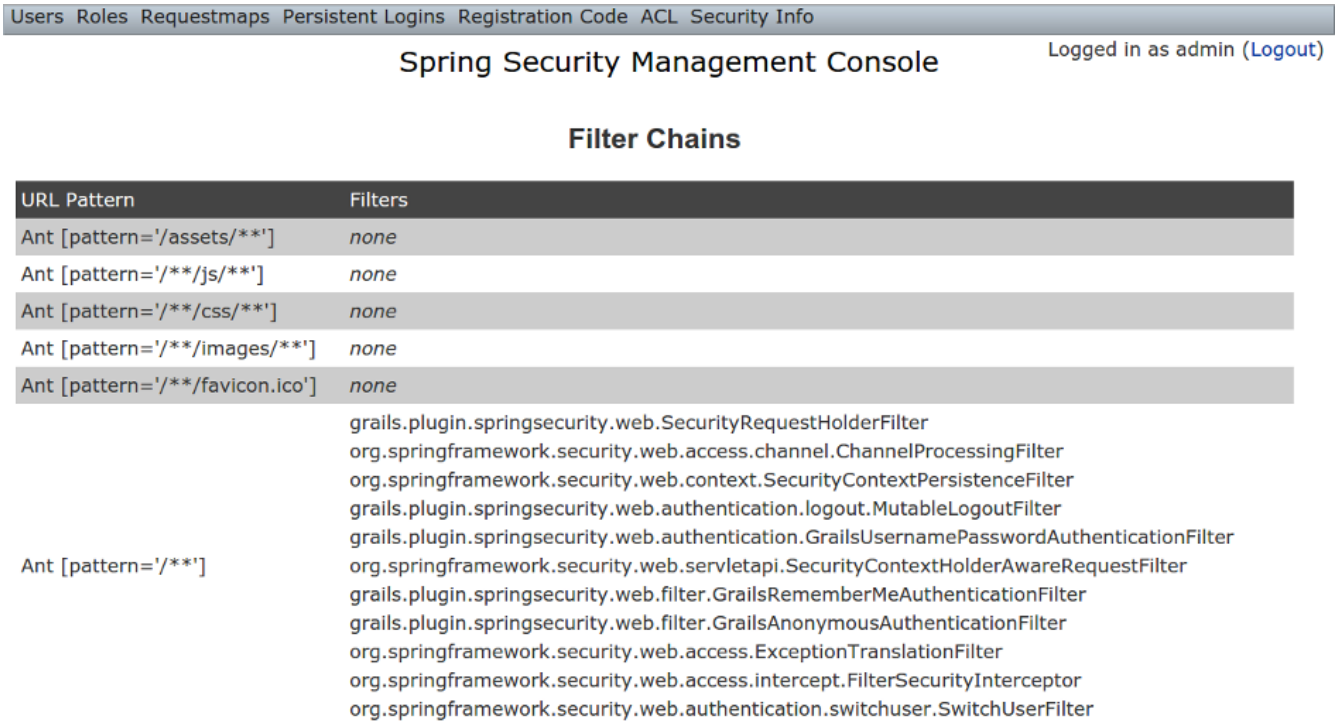
9.4. User Cache

The User Cache menu item displays information about cached users if the feature is enabled (it is disabled by default).



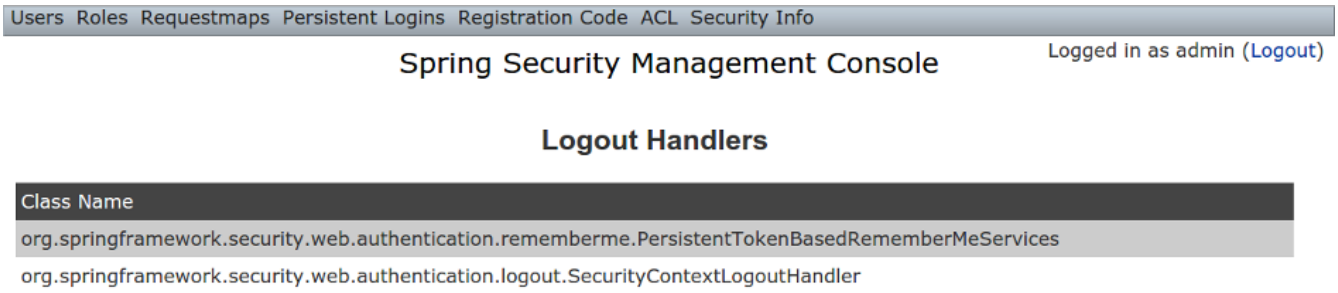
9.5. Filter Chains

The Filter Chains menu item displays your configured Filter chains. It is possible to have multiple URL patterns each with its own filter chain, for example when using HTTP Basic Auth for a web service. By default since the 3.0.0 release the spring-security-core `s2-quickstart` script configures empty filter chains for static assets to avoid unnecessary security checks (although of course if you need to secure some or all of your static assets you should reconfigure these).



9.6. Logout Handlers

The Logout Handlers menu item displays your registered `LogoutHandler`s. Typically there will be just the ones shown here, but you can register your own custom implementations, or a plugin might contribute more:

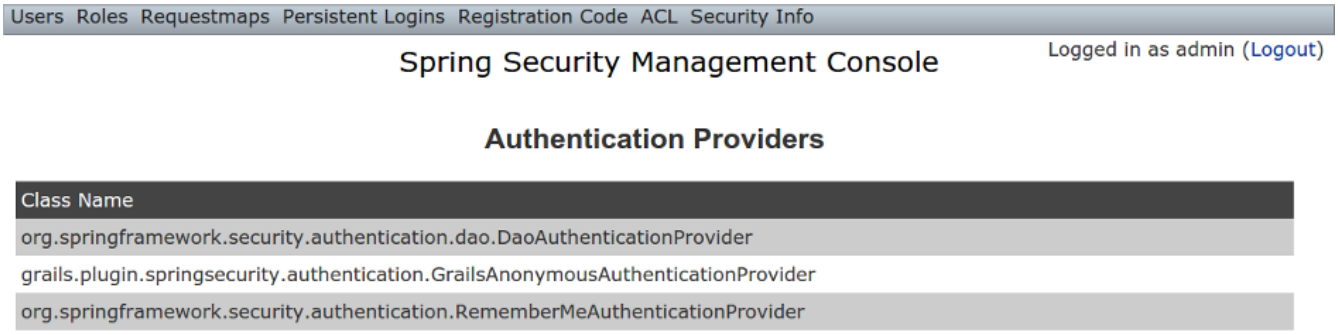


9.7. Voters

The Voters menu item displays your registered `AccessDecisionVoter`s. Typically there will be just the ones shown here, but you can register your own custom implementations, or a plugin might contribute more:

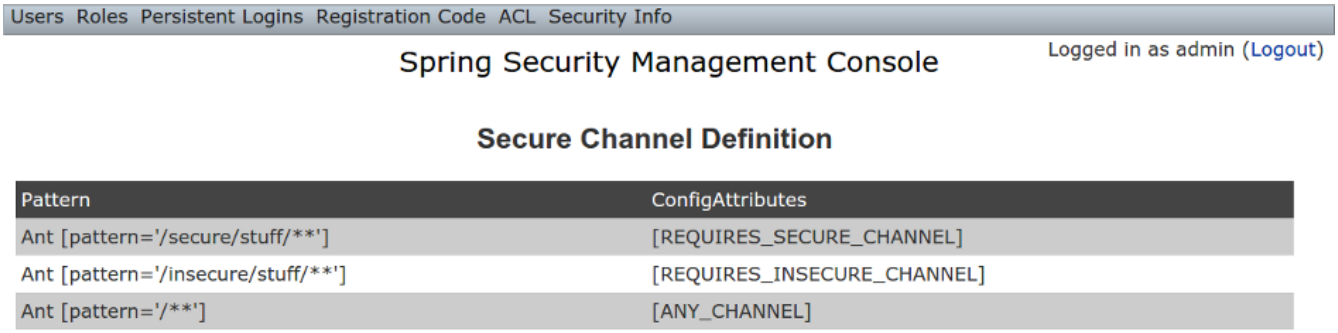
9.8. Authentication Providers

The Authentication Providers menu item displays your registered `AuthenticationProvider`s. Typically there will be just the ones shown here, but you can register your own custom implementations, or a plugin (e.g. LDAP) might contribute more:



9.9. Secure Channel Definition

The Secure Channel Definition menu item displays your registered channel security mappings.



Chapter 10. Customization

Most aspects of the plugin are configurable.

10.1. s2ui-override script

The plugin's controllers and GSPs are easily overridden using the `s2ui-override` script. The general syntax for running the script is

```
grails s2ui-override <type> <controller-package>
```

The script will copy an empty controller that extends the corresponding plugin controller into your application so you can override individual actions and methods as needed. It also copies the controller's GSPs. The exceptions are 'auth' and 'layout' which only copy GSPs.

The files copied for each type are summarized here:

- aclclass
  - `controller/AclClassController.groovy`
  - `views/aclClass/create.gsp`
  - `views/aclClass/edit.gsp`
  - `views/aclClass/search.gsp`
- aclentry
  - `controller/AclEntryController.groovy`
  - `views/aclEntry/create.gsp`
  - `views/aclEntry/edit.gsp`
  - `views/aclEntry/search.gsp`
- aclobjectidentity
  - `controller/AclObjectIdentityController.groovy`
  - `views/aclObjectIdentity/create.gsp`
  - `views/aclObjectIdentity/edit.gsp`
  - `views/aclObjectIdentity/search.gsp`
- aclsid
  - `controller/AclSidController.groovy`
  - `views/aclSid/create.gsp`
  - `views/aclSid/edit.gsp`
  - `views/aclSid/search.gsp`
- auth
  - `views/login/auth.gsp`
- layout

    - views/layouts/springSecurityUI.gsp
    - views/includes/_ajaxLogin.gsp
- persistentlogin
    - controller/PersistentLoginController.groovy
    - views/persistentLogin/edit.gsp
    - views/persistentLogin/search.gsp
- register
    - controller/RegisterController.groovy
    - views/register/forgotPassword.gsp
    - views/register/register.gsp
    - views/register/resetPassword.gsp
- registrationcode
    - controller/RegistrationCodeController.groovy
    - views/registrationCode/edit.gsp
    - views/registrationCode/search.gsp
- requestmap
    - controller/RequestmapController.groovy
    - views/requestmap/create.gsp
    - views/requestmap/edit.gsp
    - views/requestmap/search.gsp
- role
    - controller/RoleController.groovy
    - views/role/create.gsp
    - views/role/edit.gsp
    - views/role/search.gsp
- securityinfo
    - controller/SecurityInfoController.groovy
    - views/securityInfo/config.gsp
    - views/securityInfo/currentAuth.gsp
    - views/securityInfo/filterChains.gsp
    - views/securityInfo/logoutHandlers.gsp
    - views/securityInfo/mappings.gsp
    - views/securityInfo/providers.gsp
    - views/securityInfo/secureChannel.gsp
    - views/securityInfo/usercache.gsp
    - views/securityInfo/voters.gsp
- user
    - controller/UserController.groovy

- views/user/create.gsp
- views/user/edit.gsp
- views/user/search.gsp

10.2. I18N

All of the plugin's displayed strings are localized and stored in the plugin's grails-app/i18n/messages.spring-security-ui.properties file. You can override any of these values by putting an override in your application's grails-app/i18n/messages.properties file.

10.3. application.groovy attributes

There are a few configuration options specified in DefaultUiSecurityConfig.groovy that can be overridden in your application's grails-app/conf/application.groovy

10.3.1. Registration attributes

These settings are used in the registration workflow; see the User Registration section for more details:

- grails.plugin.springsecurity.ui.register.defaultRoleNames
- grails.plugin.springsecurity.ui.register.emailBody
- grails.plugin.springsecurity.ui.register.emailFrom
- grails.plugin.springsecurity.ui.register.emailSubject
- grails.plugin.springsecurity.ui.register.postRegisterUrl

10.3.2. Forgot Password attributes

These settings are used in the forgot-password workflow; see the Forgot Password section for more details:

- grails.plugin.springsecurity.ui.forgotPassword.emailBody
- grails.plugin.springsecurity.ui.forgotPassword.emailFrom
- grails.plugin.springsecurity.ui.forgotPassword.emailSubject
- grails.plugin.springsecurity.ui.forgotPassword.postResetUrl

10.3.3. GSP layout attributes

The layout attribute in the GSPs is configurable. If this is the only change you want to make in some or all of the GSPs then you can avoid copying the GSPs into your application just to make this change.

The default value for the registration workflow GSPs (forgotPassword.gsp, register.gsp, and resetPassword.gsp) is "register" and the default for the rest is "springSecurityUI". These values can be overridden with the grails.plugin.springsecurity.ui.gsp.layoutRegister and

`grails.plugin.springsecurity.ui.gsp.layoutUi` settings.

10.3.4. Miscellaneous attributes

The role name required to be able to run as another user defaults to `ROLE_SWITCH_USER` but you can override this name with the `grails.plugin.springsecurity.ui.switchUserRoleName` setting.

10.4. CSS and JavaScript

The plugin uses the Asset Pipeline plugin to manage its resources. This makes it very easy to provide your own version of some or all of the static resources since asset-pipeline will always use a file in the application's `assets` directory instead of a plugin's if it exists.

Instead of depending on either the jQuery or jQuery UI plugins, this plugin includes its own copy of jquery.js, jquery-ui.js, and jquery-ui.css. Note that the versions are not hard-coded, but instead they take advantage of the feature in asset-pipeline where you can embed Groovy code in a file to specify the name and path.

The layouts use `grails-app/assets/javascripts/jquery.js`, which contains this:

```
//=require jquery/jquery-
${grails.plugin.springsecurity.ui.Constants.JQUERY_VERSION}.js
```

This resolves to `grails-app/assets/javascripts/jquery/jquery-2.1.4.js`, and to use your own version, either use the same approach in a file called `jquery.js` or rename your file to `jquery.js`.

Likewise for jQuery UI, the JavaScript file is `grails-app/assets/javascripts/jquery-ui.js`, which contains this

```
//=require jquery-ui/jquery-ui-
${grails.plugin.springsecurity.ui.Constants.JQUERY_UI_VERSION}.js
```

and the CSS file `grails-app/assets/stylesheets/jquery-ui.css`, which contains

```
/*
 *= require smoothness/jquery-ui-
${grails.plugin.springsecurity.ui.Constants.JQUERY_UI_VERSION}.css
 */
```

The JavaScript file resolves to `grails-app/assets/javascripts/jquery-ui/jquery-ui-1.10.3.custom.js`, and to use your own version, either use the same approach in a file called `jquery-ui.js` or rename your file to `jquery-ui.js`.

The CSS file resolves to `grails-app/assets/stylesheets/smoothness/jquery-ui-1.10.3.custom.css`, and to use your own version, either use the same approach in a file called `jquery-ui.js` or rename your file to `jquery-ui.js`.

Use your own `jquery-ui.js` and/or `jquery-ui.css` to override the plugin's.

The `springSecurityUI.gsp` layout includes `grails-app/assets/stylesheets/spring-security-ui.css`, which has no style declarations and only includes other CSS files:

```
/*
 *= require reset.css
 *= require jquery-ui.css
 *= require jquery.jdMenu.css
 *= require jquery.jdMenu.slate.css
 *= require jquery.jgrowl.css
 *= require spring-security-ui-common.css
 */
```

and `grails-app/assets/javascripts/spring-security-ui.js` which has no JavaScript code and only includes other JavaScript files:

```
//= require jquery.js
//= require jquery-ui.js
//= require jquery/jquery.jgrowl.js
//= require jquery/jquery.positionBy.js
//= require jquery/jquery.bgiframe.js
//= require jquery/jquery.jdMenu.js
//= require jquery/jquery.form.js
//= require spring-security-ui-ajaxLogin.js
```

The `register.gsp` layout layout includes `grails-app/assets/stylesheets/spring-security-ui-register.css`, which has no style declarations and only includes other CSS files:

```
/*
 *= require reset.css
 *= require jquery-ui.css
 *= require jquery.jgrowl.css
 *= require spring-security-ui-common.css
 */
```

and `grails-app/assets/javascripts/spring-security-ui-register.js` which has no JavaScript code and only includes other JavaScript files:

```
//= require jquery.js
//= require jquery-ui.js
//= require jquery/jquery.jgrowl.js
```

The remaining JavaScript files are

- grails-app/assets/javascripts/spring-security-ui-ajaxLogin.js

- grails-app/assets/javascripts/jquery/jquery.bgiframe.js
- grails-app/assets/javascripts/jquery/jquery.dataTables.js
- grails-app/assets/javascripts/jquery/jquery.form.js
- grails-app/assets/javascripts/jquery/jquery.jdMenu.js
- grails-app/assets/javascripts/jquery/jquery.jgrowl.js
- grails-app/assets/javascripts/jquery/jquery.positionBy.js

and the remaining CSS files are

- grails-app/assets/stylesheets/jquery.dataTables.css
- grails-app/assets/stylesheets/jquery.jdMenu.css
- grails-app/assets/stylesheets/jquery.jdMenu.slate.css
- grails-app/assets/stylesheets/jquery.jgrowl.css
- grails-app/assets/stylesheets/reset.css
- grails-app/assets/stylesheets/spring-security-ui-auth.css
- grails-app/assets/stylesheets/spring-security-ui-common.css

10.5. Password Hashing

In recent versions of the Spring Security Core plugin, the "User" domain class is generated by the `s2-quickstart` script with code to automatically hash the password. This makes the code simpler (for example in controllers where you create users or update user passwords) but older generated classes don't have this generated code. This presents a problem for plugins like this one since it's not possible to reliably determine if the domain class hashes the password or if you use the older approach of explicitly calling `springSecurityService.encodePassword()`.

The unfortunate consequence of mixing a newer domain class that does password hashing with controllers that call `springSecurityService.encodePassword()` is the the passwords get double-hashed, and users aren't able to login. So to get around this there's a configuration option you can set to tell this plugin's controllers whether to hash or not: `grails.plugin.springsecurity.ui.encodePassword`.

This option defaults to `false`, so if you have an older domain class that doesn't handle hashing just enable this plugin's hashing:

```
grails.plugin.springsecurity.ui.encodePassword = true
```

h4. Strategy classes

The plugin's `SpringSecurityUiService` implements several "strategy" interfaces to make it possible to override its functionality in a more fine-grained way.

These are defined by interfaces in the `grails.plugin.springsecurity.ui.strategy` package:

- AclStrategy
- ErrorsStrategy
- MailStrategy
- PersistentLoginStrategy
- PropertiesStrategy
- QueryStrategy
- RegistrationCodeStrategy
- RequestmapStrategy
- RoleStrategy
- UserStrategy

The controllers, taglib, and even the service never call strategy methods directly on the service, only via a strategy interface.

Each interface has a default implementation, e.g. DefaultAclStrategy, DefaultErrorsStrategy, etc., and these simply delegate to SpringSecurityUiService (except for MailStrategy, which has MailPluginMailStrategy as its default implementation which uses the Mail plugin to send emails). Each of the default implementations is registered as a Spring bean:

- uiAclStrategy
- uiErrorsStrategy
- uiMailStrategy
- uiPersistentLoginStrategy
- uiPropertiesStrategy
- uiQueryStrategy
- uiRegistrationCodeStrategy
- uiRequestmapStrategy
- uiRoleStrategy
- uiUserStrategy

To override the functionality defined in one of the strategy interfaces, register your own implementation of the interface in your application's grails-app/conf/spring/resources.groovy, e.g.

```
import com.myapp.MyRequestmapStrategy

beans = {
   uiRequestmapStrategy(MyRequestmapStrategy)
}
```

and yours will be used instead.

10.6. Password Verification

By default the registration controller has rather strict requirements for valid passwords; they must be between 8 and 64 characters and must include at least one uppercase letter, at least one number, and at least one symbol from "!@#$%^&". You can customize these rules with these

application.groovy attributes:

Property	Default Value
grails.plugin.springsecurity.ui.password.minLength	8
grails.plugin.springsecurity.ui.password.maxLength	64
grails.plugin.springsecurity.ui.password.validationRegex	"^.*(?=.*\\d)(?=.*[a-zA-Z])(?=.*[!@#$%^&]).*$"

Chapter 11. Scripts

11.1. s2ui-override

Purpose

Generates controllers that extend the plugin's controllers and copies their GSPs to your application for overriding of functionality.

The general format is:

```
grails s2ui-override <type> [controllerPackage]
```

The script will copy an empty controller that extends the corresponding plugin controller into your application so you can override individual actions and methods as needed. It also copies the controller's GSPs. The exceptions are when type is 'auth' or 'layout' which only copy GSPs.

See the Customization section for more details.