Contents

Installing SAIL

This guide describes how to install the [1]SAIL application from [2]SIMBioMS.

The guide assumes you are running on Ubuntu 10.10 Linux server with an Apache 2 web server frontend to a Tomcat 6 Java application server with a MySQL database backend, although many of the commands and changes should apply to any other Java application server. It also assumes you have a basic knowledge of editing files on a Unix server.

Install and test the server software

First steps are to install the Apache 2 and Tomcat 6 server software:

- sudo aptitude update
- sudo aptitude install apache2 tomcat6 tomcat6-admin mysql-server mysql-client

Enable the Apache 2 proxy modules:

- sudo a2emod proxy proxy_http

Test the Tomcat server by using the URL (replacing www.example.com with your server name):

http://www.example.com:8080/

There should also be a link on that page to the manager interface. We will refer to that later.

Now edit the Apache server configuration file(default is /etc/apache2/sites-enabled/000-default, but you can copy this to a suitable file for your server, or use an existing server config).

Add the following lines just before the logging entries:

```
ProxyRequests On
ProxyVia On
<Proxy *>
        Order deny,allow
        Deny from all
        Allow from all
</Proxy>
ProxyPass /SAIL http://localhost:8080/SAIL
ProxyPassReverse /SAIL http://localhost:8080/SAIL
```

This will create a URL of:

http://www.example.com/SAIL

which points to your Tomcat instance. This allows you to keep direct access to the Tomcat instance restricted and to provide a nicer looking URL. It won't work just yet.

Installing the MySQL database

Create the SAIL database (you will need to know your MySQL root/superuser password). This creates a database called "sail", with a user called "sailuser" with a password of "password". **You probably want to use a more secure password**.

```
mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 115
Server version: 5.1.49-1ubuntu8.1 (Ubuntu)

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database sail;
Query OK, 1 row affected (0.00 sec)

mysql> grant usage on *.* to sailuser@localhost identified by 'password';
Query OK, 0 rows affected (0.00 sec)

mysql> grant all privileges on sail.* to sailuser@localhost;
Query OK, 0 rows affected (0.00 sec)

mysql> exit
Bye
```

Load the database with the default SAIL SQL commands downloaded from:

http://www.simbioms.org/software/SAIL/latest/sail.sql

```
mysql -u sail -p sail <sail.sql
Enter password:
```

You now have a MySQL database prepared for your SAIL application. Note the database name, username and password you used because they will be needed later.

Install the SAIL application into Tomcat

Download the most recent SAIL WAR file from:

http://www.simbioms.org/software/SAIL/latest/SAIL.war

Go to your Tomcat administrator interface:

http://www.example.com:8080/manager/html/list

You should have a few default Applications. These can be left alone.

In the "WAR file to deploy" section, enter the following fields:

```
Select WAR file to upload: SAIL.war
```

Click "Deploy".

If all goes well, you should have a new application called "SAIL". If it has not started automatically, choose "Start".

Editing the SAIL configuration file to use the database

To allow the SAIL application to use the MySQL database created earlier, you need to edit:

```
$TOMCAT_HOME/webapps/SAIL/WEB-INF/web.xml
```

The default on Ubuntu is:

```
/var/lib/tomcat6/webapps/SAIL/WEB-INF/web.xml
```

Find the lines referring to SAIL_DBURL, SAIL_DBUserName and SAIL_DBPassword and change the param-value fields to correspond to the database created above. If you used the above values, then it will look like this:

```
<context-param>
      <param-name>SAIL_DBURL</param-name>
      <param-value>jdbc:mysql://localhost/sail</param-value>
</context-param>
<context-param>
      <param-name>SAIL_DBUserName</param-name>
      <param-value>sailuser</param-value>
</context-param>
<context-param>
      <param-name>SAIL_DBPassword</param-name>
      <param-value>password</param-value>
</context-param>
```

Save the file and restart the SAIL application in the Tomcat management interface (see above).

Accessing SAIL and creating the admin user

To access your SAIL instance, go to the Apache proxy URL you created:

http://www.example.com/SAIL/

If all goes well, you should end up with a page requiring you to enter a username and other info. This is your SAIL admin user you are creating, so use a username that is suitable, e.g: sailadmin, and keep the password secure.

Issues that may arise

The main issue we have come across is a blank page when the SAIL instance is accessed. This is usually caused by a problem trying to access the database backend and more detailed info can be found in the Tomcat server logs (**/var/log/tomcat6/catalina*** on Linux installations)

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