FAIMS Server Guide

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This guide will instruction you on how to setup and run the faims web server.

Requirements

- Ubuntu 12 32-bit

Setup Server

- You will need to have rvm installed on your system.

```
$ \curl -L https://get.rvm.io | bash -s stable --ruby
```

You should check for rvm requirements and install them!

- You need to get the source from github

```
$ git clone git@github.com:IntersectAustralia/faims-web.git
```

- You need to have the version of ruby we're using

```
$ rvm install ruby-1.9.3-p286
```

- You need to create the gemset we're using

```
$ rvm use 1.9.3-p286@faims  --create
```

- You need bundler and rails

```
$ gem install bundler rails
```

Install Spatialite

Requirements:

- install packages build-essential, g++, sqlite3 and libsqlite3-dev

```
$ sudo apt-get install build-essential g++ sqlite3 libsqlite3-dev
```

Instructions:

- download and compile proj4 (4.8.0) from https://trac.osgeo.org/proj/

```
$ cd proj4-4.8.0
$ ./configure
$ make
$ sudo make install
```

- download and compile geos (3.3.5) from https://trac.osgeo.org/geos/

```
$ cd geos-3.3.5
$ ./configure
$ make
$ sudo make install
```

Note: geos (3.3.6) had compile errors.

- download and compile freexl (1.0.0d) from https://www.gaia-gis.it/fossil/freexl/index

```
$ cd freexl-1.0.0d
$ ./configure
$ make
$ sudo make install
```

- download and compile libspatialite (3.0.1) https://www.gaia-gis.it/fossil/libspatialite/index

```
$ cd libspatialite-3.0.1
$ ./configure
$ make
$ sudo make install
```

You probably also want to use ldconfig to make sure /usr/local/lib is included when Ubuntu looks for shared libraries.

Install Spaitelite-tools

Requirements:

- install packages expat libexpat1-dev zlib1g-dev

```
$ sudo apt-get install expat libexpat1-dev zlib1g-dev
```

Instructions:

- download and compile readosm (1.0.0b) from https://www.gaia-gis.it/fossil/readosm/index

```
$ cd readosm-1.0.0b
$ ./configure
$ make
$ sudo make install
```

- download and compile spatialite-tools (3.1.0) from https://www.gaia-gis.it/fossil/spatialite-tools/index

```
$ cd spatialite-tools-3.1.0
$ ./configure
$ make
$ sudo make install
```

Note: spatialite-tools (4.0.0) had compile errors.

Usage:

Now you should have access to all the tools.

Some tools may raise errors due to missing file e.g. ... missing file libspatialite.so.2. In such cases simply add the appropriate file to library path.

e.g.

```
sudo ldconfig /usr/local/lib/libspaitalite.so.2
```

Install Gdal Tools

Instructions:

- download and compile gdal (1.9.2) from http://trac.osgeo.org/gdal/wiki/DownloadSource/

```
$ cd gdal-1.9.2
$ ./configure
$ make
$ sudo make install
```

You probably also want to use ldconfig to make sure /usr/local/lib is included when Ubuntu looks for shared libraries.

Server Usage

Initialise Server

- Open a terminal and navigate to the root folder of the rails app

```
$ rake db:create db:migrate db:seed
```

Server Update

- Open a terminal and navigate to the root folder of the rails app

```
$ git pull
$ rake db:migrate
```

Quick Server Startup

- To run the server and setup the background processes use the following command

```
$ foreman start
```

Recreating the server database

- Open a terminal and navigate to the root folder of the rails app

```
$ rake db:drop db:create db:migrate db:seed
```

Cleaning up projects

- Open a terminal and navigate to the root folder of the rails app

```
$ rake projects:clean
```

Importing Shape files into Spatialite Database

Change shape file projection

1. Change projection of shape file using the following command:

```
$ ogr2ogr -s_srs EPSG:<Shape file projection> -t_srs EPSG:3785 <Output.shp>
<Input.shp>
```

- Shape file projection = projection of shape file

- Input.shp = input shape file
- Output.shp = output shape file

Import shape file into spatialite database

1. Import shape file into spatialite database using the following command:

```
$ spatialite_tool -i -shp <Input.shp> -d <SpatialiteDB.sqlite> -t <Table name> -g
Geometry -c utf-8 -s 3785
```

- Input.shp = input shape file
- SpatialiteDB.sqlite = output spatialite database
- Table name = table to import shape file into

> *Note: You can import multiple shape files into the same spatialite database.*