

# Importing GeoTiffs into FAIMS Android App

## Importing GeoTiffs into FAIMS Android App

### Requirements


- [Installing Spatialite on Ubuntu](#)
- [Installing Spatialite Tools on Ubuntu](#)
- [Installing GDAL Tools](#)
- [Install GRASS GIS](#)

### Change GeoTiff projection

1. Change GeoTiff projection using the following command.


```
$ gdalwarp -s_srs EPSG:<GeoTiff Projection> -t_srs EPSG:3857 <Input.tif> <Output.tif>
```

- GeoTiff Projection = refers to the projection of the GeoTiff
- Input.tif = refers to the input GeoTiff
- Output.tif = refers to the output GeoTiff

 *Note: This can sometimes fail due to versions of libraries installed. If the resulting GeoTiff is not properly reprojected then install gdal-bin package from ubuntu software center and retry.*


### Importing GeoTiffs into GRASS

1. Run grass from command line.
2. Create location in same projection as GeoTiff.
3. Use default mapset and create your own mapset.
4. Start grass session.
5. Import GeoTiff into grass using File > Import raster Data > Common import formats.
6. Choose GeoTiff to import and click Import button.

 *Note: if import GeoTiff fails then the most likely reason is because its not in the same projection as the grass location specified in step 2. If this is the case then create a new location in the same projection as the GeoTiff.*


### Exporting GeoTiffs from GRASS

1. If maps aren't loaded then goto File > Workspace > Load map layers and load the geotiffs
2. In map layers window select geotiff to export and right click geotiff and select Set computational region from selected maps(s).

 *Note: This tells GRASS the region you want to export.*

3. Now export the GeoTiff using File > Export raster map > Common export formats.
4. Select the raster you want to export and give an output filename and click the run button.

### Adding Tiling to GeoTiff


 *Note: the faims android app currently does not support tiling*

#### 1. Add tiling to the GeoTiff

```
$ gdalwarp -co TILED=YES <Input.tif> <Output.tif>
```

- GeoTiff Projection = refers to the projection of the GeoTiff
- Input.tif = refers to the input GeoTiff
- Output.tif = refers to the output GeoTiff

## Adding Pyramids to GeoTiff

 Note: the faims android app currently does not support pyramids

#### 1. Add Pyramids to the GeoTiff

```
$ gdaladdo -r nearest <Input.tif> 2 4 8 16 32 64 128 256 512 1024
```

- Input.tif = refers to the input GeoTiff