

Open Source GIS for Public Health and Policy

Software

Open Source GIS:

- GRASS - <http://grass.itc.it/>
- QGIS - <http://www.qgis.org>
- uDig - <http://udig.refractor.net>
- MapWindow - <http://www.mapwindow.com/>
- SAGA - <http://www.saga-gis.uni-goettingen.de>
- gvSig - <http://www.gvsig.gva.es/>
- MapGuide OS - <http://mapguide.osgeo.org/>
- FWTools - <http://fwtools.maptools.org/>

Freeware GIS:

- Accuglobe - <http://www.ddti.net/>
- GoogleEarth - <http://earth.google.com>
- Diva - <http://www.diva-gis.org/>
- ArcGIS Explorer - <http://www.esri.com>

Specific Applications (free or open source):

- GeoDa - <https://www.geoda.uiuc.edu/>
- SaTScan - <http://www.satscan.org>
- EpiInfo - <http://www.cdc.gov/epiinfo>
- Space Time Analysis of Regional Systems (STARS) - <http://regionalanalysislab.org/>
- Batchgeocode - <http://www.batchgeocode.com>
- Spatial Libraries in R - <http://www.r-project.org/>

Proprietary Applications:

ESRI - AutoDesk - MapInfo - Intergraph
IDRISI - ERDAS - SAS - Matlab
Accessibility Analyst - <http://www.ciat.cgiar.org/access/>

Data Sources

Vector Data Sets:

Shape files:

Census - <http://www.census.gov/geo/www>
ESRI - <http://www.esri.com/data>
EpiInfo - <http://www.cdc.gov/epiinfo>

Attribute files:

(international – national – local)
WHO – <http://www.who.int/research/en>
WB – <http://devdata.worldbank.org/hnpstats>
UNSD/UNPD – <http://unstats.un.org>
DHHS Geospatial Warehouse –
<http://www.geodata.gov>
<http://www.nationalatlas.gov>
CDC Atlas of Reproductive Health
Atlas of US Mortality
Atlas of Cancer Mortality (NCI)
State DOH/Scan Statistics
for example, Florida CHARTS

GECensus

<http://gecensus.stanford.edu>

Raster Data Sets:

CIESIN/SEDAC – <http://sedac.ciesin.org>
Gridded Census Data
Gridded Population Data (US, International)
Poverty Mapping

Training

Methods Available for Open Source and Freeware GIS users:

- Health Surveillance
- Exploratory Spatial Analysis (choropleth mapping, brushing/spatial histograms/scatterplots, cartograms)
- Spatial Epidemiology (spatial cluster and autocorrelation analysis, spatial regression, geographically weighted regression, HLM)
- Location/Transportation Analysis
- Demographic Analysis
- Exploration of Spatial Inequities

Open Source GIS Classes:

COAPS – <http://coaps.fsu.edu/gis>
My website – <http://mailer.fsu.edu/~ljordan>
Site specific tutorials (GeoDa)...

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