

Open Source

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Introduction

- What is open source?
 - **NOT** "Free" as in beer
 - **BUT** "Free" as in speech
 - <http://www.gnu.org/philosophy/free-sw.html>
- Why use open source?
 - GDAL/OGR (ArcGIS from 2006)
 - BigTIFF (WeoGeo, Safe Software, Leica)
 - http://www.geoconnexion.com/uploads/opensource_intv6i7.pdf
 - Hadoop
 - <http://www.pcpro.co.uk/author/253610/ian-wrigley>

But why?

- Innovative IP more rapidly available via OS
- Modify the code (feature requests, longevity)
- Have a voice in the direction development takes
- Future workforce is already trained
 - contributing as a *developer* good for employability

Links

- Open Source Geospatial Foundation
 - <http://www.osgeo.org>
- GeoConnexions
 - http://wiki.osgeo.org/wiki/GeoConnexion_Columnn
- Portable GIS
 - <http://www.archaeogeek.com/blog/portable-gis/>
- Mapping Hacks
 - <http://www.amazon.co.uk/Mapping-Hacks-Tools-Electronic-Cartography/dp/0596007035>
- the scripting paradigm

Desktop: QGIS

- QGIS
 - <http://www.qgis.org/wiki/Download>
 - Its already portable
- Introducing GIS Worksheets
 - <http://linfiniti.com/dla>



Desktop: MapWindow

- MapWindow
 - <http://www.mapwindow.org/>
- Portable MapWindow
 - <http://sourceforge.net/projects/shanet/files/>
- MapAction Field Guide to Humanitarian Mapping:
 - <http://www.mapaction.org/resources.html>



Desktop: Others

- Geographic Resources Analysis Support System (GRASS):
 - <http://grass.fbk.eu/>
 - JGRASS: http://jgrass.wiki.software.bz.it/jgrass/JGrass_Wiki
- Generic Mapping Tools (GMT)
 - <http://gmt.soest.hawaii.edu>
- gvSIG (Java)
 - <http://www.gvsig.org>
- uDig
 - <http://udig.refractions.net/>

Programming: Python

- Books:
 - Python Documentation
 - <http://docs.python.org>
 - Python Books
 - <http://wiki.python.org/moin/PythonBooks>
 - Snake Wrangling for Kids
 - <http://www.briggs.net.nz/log/writing/snake-wrangling-for-kids/Software>
- Software
 - Portable Python
 - <http://www.portablepython.com/>



Statistics: R

- R
 - <http://www.r-project.org>
- Portable R
 - <http://sourceforge.net/projects/rportable/>
- Analysis of Spatial Data
 - <http://cran.r-project.org/web/views/Spatial.html>
- Spatial Projects
 - <http://geodacenter.asu.edu/r-spatial-projects>
- ArcGIS10 Library
 - <http://resources.arcgis.com/gallery/file/geoprocessing/details?entryID=F855D6D1-1422-2418-A0B2-643E624A8925>



Remote Sensing 1

- LEOWorks (not OS)
 - <http://www.eduspace.esa.int/subdocument/default.asp?document=364>
- Opticks
 - <http://www.opticks.org>
- OpenDragon (not OS)
 - <http://www.open-dragon.org/>



Remote Sensing 2

- SAMS
 - <http://sams.projects.atlas.ca.gov/>
- JMars (Java)
 - <http://jmars.asu.edu/>
- GIMP (Portable)
 - http://portableapps.com/apps/graphics_pictures/gimp_portable



Internet 1: XAMPP

- XAMPP (portable):
 - <http://www.apachefriends.org/en/xampp-windows.html#641>
 - <http://code.google.com/apis/maps/articles/phpsqlajax.html>
- HeidiSQL
 - <http://www.heidisql.com/download.php>

Internet 2: Web Mapping

- MySQL/PostgreSQL: spatial extensions
 - <http://workshops.opengeo.org/postgis-intro/>
- MapServer
 - Web Mapping Illustrated
 - <http://my.safaribooksonline.com/0596008651>
- GeoServer
 - <http://workshops.opengeo.org/geoserver-intro/>
- Client Side:
 - OpenLayers
 - <http://workshops.opengeo.org/openlayers-intro/>