

## Introductory information

[www.colorado.edu/geography/gcraft/notes/datacon/datacon\\_f.html](http://www.colorado.edu/geography/gcraft/notes/datacon/datacon_f.html) A good **general description of the way GIS works**, written and updated over a 10 year period by a couple of geography professors at University of Texas (and later University of Colorado).

[www.esri.com/what-is-gis](http://www.esri.com/what-is-gis) This 2-minute video provides a **brief but comprehensive introduction to GIS** from ESRI, (Earth Science Research Institute), the makers of the most comprehensive and popular GIS software, ArcGIS. Page also includes links to other resources.

[linfiniti.com/dla/](http://linfiniti.com/dla/) Introduction to GIS, by the Chief Directorate: Spatial Planning & Information, Department of Land Affairs, Eastern Cape, South Africa. This user-friendly site provides a **“gentle introduction to GIS” , involving 11 modules** in worksheet (PDF) format, as well as a number of video tutorials. Examples use an open-source (free) GIS software package called Quantum GIS. Videos, samples and tutorials are provided, as well as links to the software download site.

[www.mapaction.org/resources.html](http://www.mapaction.org/resources.html) An excellent field guide to mapping using Google Earth and an open source GIS called MapWindow, as well as collecting data using a GPS, can be found here. It is called **“The MapAction Field Guide to Humanitarian Mapping.”** It is quite comprehensive and contains a number of useful links, in addition to all the basic instructions.

[www.globalhealthlearning.org](http://www.globalhealthlearning.org) **“Geographic Approaches to Global Health”** is an online course complete with external links, case study examples, glossary, and exam questions, which is accessed via login to the USAID Global Health e-Learning Center. It provides an introduction to geographic data schemas, data collection strategies, and geographic data presentation and analysis.

[www.cpc.unc.edu/measure/publications/MS-11-41A](http://www.cpc.unc.edu/measure/publications/MS-11-41A) An introductory guide to **Spatial Data Protocols**, published by MEASURE Evaluation and available as a free download from our website. It is available with either an HIV/AIDS activities focus or a family planning activities focus.

## Software-specific tutorials and free mapping tools

[training.esri.com/gateway/](http://training.esri.com/gateway/) **ESRI Training and Education** (ArcGIS)—As the industry leader in GIS software, ESRI has a very extensive selection of online courses and tutorials located at their “virtual campus”. Some of these courses are free (usually the first module of a course) and some require payment.

Some recommended courses for getting started include:

*Getting Started with GIS* (9 hours) [training.esri.com/acb2000/showdetl.cfm?DID=6&Product\\_ID=915](http://training.esri.com/acb2000/showdetl.cfm?DID=6&Product_ID=915)

*Learning ArcGIS Desktop* (24 hours) [training.esri.com/acb2000/showdetl.cfm?DID=6&Product\\_ID=870](http://training.esri.com/acb2000/showdetl.cfm?DID=6&Product_ID=870)

*Understanding Geographic Data* (18 hours) [training.esri.com/acb2000/showdetl.cfm?DID=6&Product\\_ID=702](http://training.esri.com/acb2000/showdetl.cfm?DID=6&Product_ID=702)

**MEASURE Evaluation E2G Tool:** The e2g (Excel to Google Earth) mapping tool, available in its second version, is free and can be downloaded here : [www.cpc.unc.edu/measure/e2g](http://www.cpc.unc.edu/measure/e2g)

At this site, where the free Excel to Google Earth tool (v. 2.0) may be downloaded for use for data mapping at a sub-national level in 40 different countries, there is also an illustrated PDF manual which introduces the step-by-step use of the tool, and a series of short videos to help with “frequently asked questions” (FAQs).

**WHO’s HealthMapper:** The HealthMapper tool, a public health surveillance and mapping application developed by the WHO (World Health Organization), is also available free and can be downloaded here: [www.who.int/health\\_mapping/tools/healthmapper/en/](http://www.who.int/health_mapping/tools/healthmapper/en/)

The HealthMapper tool also includes a downloadable Learner’s Guide in PDF format which can be found here: [www.who.int/health\\_mapping/resources/technical\\_documents/en/](http://www.who.int/health_mapping/resources/technical_documents/en/)

**DHIS2:** Developed by the Health Information Systems Programme (HISP) to be open and globally distributed. It has been implemented at the national level in many countries in Africa and Asia and can be found at: [dhis2.org/](http://dhis2.org/)

**CDC’s EpiMap:** EpiMap is the mapping part of Epi Info, CDC’s communicative disease analysis tool, which can be downloaded here: [www.cdc.gov/EpiInfo/](http://www.cdc.gov/EpiInfo/)

**DevInfo:** DevInfo is a database reader and administration tool which is distributed by the UN for use with their Millenium Development Goals. It has the ability to create tables, graphs, and maps and export them in common formats. The main data reader can be downloaded here: [www.devinfo.org](http://www.devinfo.org)

**DIVA:** DIVA-GIS is an open-source, free GIS program whose input choices include .shx, .dbf, and .txt files, and output choices include .bmp and .tif images. Label and legend placement are somewhat limited, but the program allows color selection and classes data according to quartiles. It is available for download here: [www.diva-gis.org](http://www.diva-gis.org)

**GeoDa:** GeoDa is a free and open source tool which is useful for exploratory spatial data analysis. It provides an ability to view multiple, linked view of spatial data. Requires shapefile input. Comes with thorough documentation and tutorials. [geodacenter.asu.org](http://geodacenter.asu.org)

**QGIS:** Short for QuantumGIS , QGIS is a complete open-source GIS with a graphical user interface which runs on multiple platforms and supports a variety of common vector, raster, and database formats. It is available for download along with a PDF User Guide available in English, French, German, and Russian, with older versions in Italian and Spanish. Links are also provided to case studies. [www.qgis.org](http://www.qgis.org)



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