

GIS Data Research Guide

A guide to finding geospatial data for research

Strategies for Searching for Data

What?

What subject or theme are you interested in?
(geology, pine beetle infestation, pollution...)

Where?

Geographic Region. What is your area of study?
(international, United States, region, county, or city...)

Who cares?

What agency might **create** this data or might be interested in **collecting** this data? Think of agencies tasked to work on a specific subject area and local/regional agencies.
(sea ice in the Arctic=National Snow & Ice Data Center, National Climatic Data Center, USGS Alaska Science Center...)

Places to Search

- Chinook (Libraries catalog)
- Databases
- Online
- Non-Georeferenced/Textual Resources

Chinook

<http://libraries.colorado.edu/>

Search Chinook, the Libraries catalog, to find government datasets, online data resources and purchased digital data.

Tips for Searching Chinook:

1. Chinook Classic —Advanced Keyword Search

Finds GIS-ready data and ungeoreferenced electronic maps and atlases in all file formats.

- Enter search terms and select **Material Type: Maps/Atlases/GIS Data** and **Electronic Version**.
- Chinook automatically ANDs terms together unless you use quotes to search as a phrase.
 - A search for *boulder geology* will find records with the word *boulder* and the word *geology* anywhere in the record.
 - A search for “*boulder geology*” will find records with only the phrase “*boulder geology*” in them.
 - Use the * for a truncation symbol. (Truncates 5 characters. For more, use **)
 - For example, “*geolog**” searches for “*geology*” and “*geologic*” and “*geological*.”

Advanced Search Screen Example

Search by:

Any Field ▾	for:	boulder colorado geolog*	And ▾
Any Field ▾	for:		And ▾
Any Field ▾	for:		

Optional Limits:

Collection: ▾

Year: After and Before

Material Type: ▾

Videorecordings: ▾

Sound Recordings: ▾

Electronic Version:

Location: ▾

Language: ▾

Publisher:

Items that are available:

Sort by: ▾

2. Chinook Classic —“Digital Spatial Data” Search

- We have added the term “digital spatial data” to all **Map Library** items that are GIS-ready.
 - Begin with a keyword search for “*digital spatial data*” to browse all of our holdings.
 - Add in keywords for place name or theme (i.e. *Boulder Colorado* or *geology*).
 - Note that this will not pull in datasets that live in other libraries on campus such as Math Physics or Government Information.

3. Experiment

- **Try various search terms using the keyword search (Chinook Classic or regular)**
 - *Statistics data**
 - *Data*GIS*
- Any combination of the above with a theme, such as *population* or *education*

4. Ask for help!

<http://ucibraries.colorado.edu/askus/index.htm>

Finding GIS Data in Databases

Unfortunately, large electronic databases of GIS data do not exist like they do for textual data. A small selection of databases with GIS-ready data and without GIS-ready data is listed below.

American FactFinder

<http://factfinder.census.gov>

Contains U.S. population, housing, industry, and business data. Can be accessed by dataset or topic.

Neighborhood Change Database from GeoLytics

<http://libraries.colorado.edu/record=e1001005~S3>.

US Census data from 1970, 1980, 1990 and 2000 at the census tract level. Accessible in the library only. Request password for each use.

ICPSR (Inter-University Consortium for Political and Social Research)

<http://www.icpsr.umich.edu/>.

Data on many different topics. Most not GIS-ready.

LexisNexis Statistical DataSets

<http://libraries.colorado.edu/record=e1000910~S3>

Data on many different topics. Most not GIS-ready.

Finding GIS Data Online (Selected Resources)

Geospatial OneStop

<http://www.geodata.gov>

Portal to US government geospatial data. Search and link to live maps, features, and catalog services, downloadable data sets, images, clearinghouses, map files, and more.

The National Atlas

<http://www.nationalatlas.gov/>

Downloadable reference and thematic GIS data (plus interactive and printable maps).

The National Map

<http://nationalmap.gov/> Newly redesigned viewers with much better functionality. High-quality current digital geographic data including topographic and bathymetric map data, satellite and aerial photography, geographic names, land cover data, hydrographic data, transportation data, and administrative data. Downloading is still a bit complex with some data layers.

Seamless Data Distribution System

<http://seamless.usgs.gov/>

From the USGS. Search and download National Elevation Dataset, National Land Cover Dataset, High Resolution Orthoimagery, and more.

Online GIS Data Resources (continued)

National Geologic Map Database

http://ngmdb.usgs.gov/ngm-bin/ngm_compsearch.pl

Database to search for geologic maps, reports, and data. Includes USGS and state geological survey publications.

Choose Comprehensive Search—Product Format—Digital—Includes GIS Data to narrow down your search.

USGS Water Resources for the United States

<http://water.usgs.gov/maps.html>

USDA Geospatial Data Gateway

<http://datagateway.nrcs.usda.gov/>

Easy to use downloads of environmental and natural resources data. Includes some reference datasets.

FSGeodata Clearinghouse

<http://svinetfc4.fs.fed.us/clearinghouse/index.html>

Clearinghouse for U.S. Forest Service digital maps, vector data, raster data and links to other GIS data collections and resources. A really nice way to bring together the diverse resources of the USFS into one place.

Colorado Geologic Map GIS data: ArcInfo format, 1:500,000 USGS OFR 92-507-A:

<http://pubs.usgs.gov/of/1992/ofr-92-0507/colorado.htm>

Digital Line Graphs (DLGs), the National Hydrography Dataset (NHD), and many other datasets produced by the USGS can be downloaded for free from the USGS web site:

<http://edc.usgs.gov/geodata/>

CU Boulder Institute of Behavioral Sciences Geographic Data Sources

http://www.colorado.edu/ibs/crs/geographic_data_sources.html

CU Boulder Map Library Collections

Historical Aerial Photographs of Colorado: Online access to over 1,700 scanned aerial photographs taken from 1937-1946 of the Front Range.

<http://ucblibraries.colorado.edu/aerialphotos/home.asp> (Not georeferenced)

Building Colorado Story by Story: The Sanborn Fire Insurance Map Collection. Online access to Sanborn maps of 79 cities in Colorado from 1883-1922.

<http://libluna.lib.ad.colorado.edu/sanborn/index.asp> (Not georeferenced)

GIS Data Finder at University of North Carolina:

<http://www.lib.unc.edu/reference/gis/datafinder/index.html>

Data isn't necessarily served out, but it's a good resource to figure out if something exists.

GIS Software & GI Science Resources

The Earth Sciences & Map Library collects GIS manuals and thematic and theoretical GIS and GI Science books and journals.

Need More Help?

Guide to GIS Data Collections in the Map Library

<http://ucblibraries.colorado.edu/map/guides/GISHandout-Data.pdf>

Statistics: A guide from the Government Information Library that provides links to electronic and print resources on statistics. <http://ucblibraries.colorado.edu/govpubs/us/stats.htm>

Introduction to International Statistics

This is a guide to starting research on international statistics.

<http://ucblibraries.colorado.edu/govpubs/handouts/internationalstats.html>

Contact Information

Earth Sciences & Map Librarian: Katie Lage • 303-735-4917 • katie.lage@colorado.edu

Map Library: <http://ucblibraries.colorado.edu/map/> • 303-492-7578 • maplib@colorado.edu