

What can you map with this database??

This CD contains *Geographic Information Systems* (GIS) viewing software and a GIS database of over 70 layers or themes relating to the historical geography of Colorado. The included *ArcExplorer* software can be used to: map the themes; query the layer (ie. select all counties in 1950 with population greater than 20,000); measure distances; create basic choropleth and graduated symbol maps by equal interval; identify specific features (with attributes); create colorful legends; and print basic maps. The accompanying ESRI manual, *Using ArcExplorer Java*, provides a detailed explanation of how to use *ArcExplorer*, software limitations, and computer requirements.

Database Contents

A **Data** folder contains the database (and the project files), which includes the following layers:

1870_county_boundaries.shp

This polygon theme includes the 21 pre-statehood counties with selected demographic/economic data (see appropriate decade under the Economic folder).

1870_county_datapoint.shp

This theme contains the exact same information as the 1870_county_boundaries.shp theme, except it is a POINT theme. There is one point in the center of each county—representing that county. This theme can be used to make graduated circles, squares, and other point symbols.

1876_county_boundaries.shp

This polygon theme includes the 26 counties at statehood. No demographic data.

1880_county_boundaries.shp

This polygon theme includes the 31 counties in 1880 with selected demographic/economic data (see appropriate decade under the Economic folder).

1880_county_datapoint.shp

This theme contains the exact same information as the 1880_county_boundaries.shp theme, except it is a POINT theme. There is one point in the center of each county—representing that county. This theme can be used to make graduated circles, squares, and other point symbols.

1890_county_boundaries.shp

This polygon theme includes the 55 counties in 1890 with selected demographic/economic data (see appropriate decade under the Economic folder).

1890_county_datapoint.shp

This theme contains the exact same information as the 1890_county_boundaries.shp theme, except it is a POINT theme. There is one point in the center of each county—representing that county. This theme can be used to make graduated circles, squares, and other point symbols.

1900_county_boundaries.shp

This polygon theme includes the 57 counties in 1900 with selected demographic/economic data (see appropriate decade under the Economic folder).

1900_county_datapoint.shp

This theme contains the exact same information as the 1900_county_boundaries.shp theme, except it is a POINT theme. There is one point in the center of each county—representing that county. This theme can be used to make graduated circles, squares, and other point symbols.

1910_county_boundaries.shp

This polygon theme includes the 60 counties in 1910 with selected demographic/economic data (see appropriate decade under the Economic folder).

1910_county_datapoint.shp

This theme contains the exact same information as the 1910_county_boundaries.shp theme, except it is a POINT theme. There is one point in the center of each county—representing that county. This theme can be used to make graduated circles, squares, and other point symbols.

1918_improved_rds_construction.shp

This theme shows improved road construction (not necessarily paved) during the year 1918. The *Hwyname* is the current (2004) name of the road/highway.

1920_county_boundaries.shp

This polygon theme includes the 63 counties in 1920 with selected demographic/economic data (see appropriate decade under the Economic folder).

1920_county_datapoint.shp

This theme contains the exact same information as the 1920_county_boundaries.shp theme, except it is a POINT theme. There is one point in the center of each county—representing that county. This theme can be used to make graduated circles, squares, and other point symbols.

1924_pavedroads.shp

This theme is an estimate of paved roads that existed in 1924. The *Hwyname* is the current (2004) name of the road/highway.

1930_county_boundaries.shp

This polygon theme includes the 63 counties in 1930 with selected demographic/economic data (see appropriate decade under the Economic folder).

1930_county_data.shp

This theme contains the exact same information as the 1930_county_boundaries.shp theme, except it is a POINT theme. There is one point in the center of each county—representing that county. This theme can be used to make graduated circles, squares, and other point symbols

1940_county_boundaries.shp

This polygon theme includes the 63 counties in 1940 with selected demographic/economic data (see appropriate decade under the Economic folder).

1940_county_data.shp

This theme contains the exact same information as the 1940_county_boundaries.shp theme, except it is a POINT theme. There is one point in the center of each county—representing that county. This theme can be used to make graduated circles, squares, and other point symbols

1946_pavedroads.shp

This theme is an estimate of paved roads that existed in 1946. The *Hwyname* is the current (2004) name of the road/highway.

1950_county_boundaries.shp

This polygon theme includes the 63 counties in 1950 with selected demographic/economic data (see appropriate decade under the Economic folder).

1960_county_boundaries.shp

This polygon theme includes the 63 counties in 1960 with selected demographic/economic data (see appropriate decade under the Economic folder).

2001_county_boundaries.shp

This polygon theme includes the 64 counties in 2001 with selected demographic/economic data (see appropriate decade under the Economic folder).

Ag_Symbol_map.jpg

This “image” theme is a map that was made in CorelDraw that uses symbols to show major crops/livestock activity in Colorado. You will likely need to “zoom in” on an area to obtain a clearer view. A transparent theme of Colorado county boundaries can be laid on top of this theme to improve visibility.

airports.shp

This point theme of 25 airports in Colorado includes information on the airport *Name*, *County* within which it is located, its nearby associated city (*Assoccity*), average number of aircraft (*aircraftop*) using the facility each day, and numerous other fields that contain valuable information.

aquifers.shp

This polygon theme should be used with the *Aq_name* field, which shows the four major aquifer systems in Colorado.

bettersoils.shp

This theme is a very rough approximation of the better agricultural soils in Colorado. This polygon theme shows mollisols and entisols in the state that are below 8,000 feet elevation.

co_cont_divide.shp

This is a line theme of the Colorado's continental divide. The *Miles* field will provide the user with the divide's total length in Colorado.

coal_potential.shp

This theme shows "potential minable" coal. The theme does not include "coal of other potential uses". Original data can be found at: <http://nationalatlas.gov/atlasftp.html>

colo_irrigated_land.shp

This layer shows a generalized map of major irrigated in Colorado.

colo_lat_long_grid.shp

This latitude/longitude grid can be placed on top of other Colorado themes. Making this theme active and then using the "i" button to click on the appropriate line will provide the user with either a north latitude or west longitude location.

colo_outline.shp

This is a polygon theme of the outline of Colorado that if made transparent can be placed on top of other themes.

communities.shp

A point theme of 584 communities/populated places, which includes the community *Name*, *County*, year of incorporation (*Yr_incorp*), and the population for about ½ of the communities in various years.

county_seats.shp

Point theme of Colorado county seats.

current_roads.shp

This line theme shows major paved roads in Colorado.

dams.shp

The dams theme shows major dams in Colorado. The theme includes numerous attributes; such as name (*Dam_name*), the river dammed (*River*), primary purpose (*prm_purpos*), *Owner*, and other attributes. Original data and more attribute information can be found at: <http://nationalatlas.gov/atlasftp.html>

denver.shp

This is a simple point theme showing the location of Denver.

fedstatelands.shp

The Fedstatelands theme shows land ownership in Colorado. The theme includes the *name* of the area/feature, the government entity that has jurisdiction (*juris*), *Owner* of the land parcel, and size (*Sq_Miles*).

forts.shp

A point theme of sixty forts in Colorado, with their name and approximate period of operation. Source: Phil and Pete Payette. 2003. American Forts Network. <http://www.geocities.com/naforts/co.html> Please note that the location of the forts are a very rough approximation (probably within 20 miles).

ghost_towns.shp

Point theme of 560 ghost towns with *Name*.

goldrush_trails.shp

Major gold rush trails into the state of Colorado with *Name* and *Miles*.

highways.shp

Line theme of U.S. highways in Colorado. The *Hwyname* is the current (2004) name of the highway.

interstates.shp

Major interstate highways in Colorado.

lifezones.shp

This polygon theme of Colorado life zones should be displayed with the *Zone* field, which will divide the state into: Alpine (above 11,500ft), Subalpine (11,500-10,000ft), Montane (10,000-8,000ft), Foothills (8,000-6,000ft), and Plains (6,000-below 4,000ft).

majorminingdistricts.shp

This point theme shows some the approximate location of some of Colorado's major mining districts. The theme includes the *Name* of the district, *Year_Start*, *status* (active or inactive), and *Minerals* produced. Source: Colorado Geological Survey, <http://gesurvey.state.co.us/pubs/geohazards/docs/mining.asp>

mineralbelt.shp

This polygon theme shows the approximate location of Colorado's "mineral belt", where deposits of gold, silver, and other minerals were initially exploited. Numerous sources, including: <http://gesurvey.state.co.us/pubs/geohazards/docs/mining.asp>

miningcamps_populated_and_ghosttown.shp

This point theme of 112 "mining camps" includes the *Name* of the mining camp, and an *Active* field which distinguishes between mining camps that are still "Populated" and those that

are “ghost town” (not populated). Mining camps that are “populated” does not necessarily mean that there are active (2004) mines in the area.

mtn_graphic.shp

Add this mountain graphic theme of major mountain ranges on top of other themes. The *Name* field includes the name of each mountain range.

nativeamericans1700s.shp

Approximate location of Native Americans in the 1700s. Source: Noel, Thomas J., Mahoney, P.F. and Stevens, R.E. 1994. *Historical Atlas of Colorado*. University of Oklahoma Press.

nativeamericans1800-1850s.shp

Approximate location of Native Americans in the early to mid 1800s. Source: Noel, Thomas J., Mahoney, P.F. and Stevens, R.E. 1994. *Historical Atlas of Colorado*. University of Oklahoma Press.

nativereservations1861-1879.shp

Approximate location of Native American reservations from 1861-1879. Boundaries are only approximate. Source: Noel, Thomas J., Mahoney, P.F. and Stevens, R.E. 1994. *Historical Atlas of Colorado*. University of Oklahoma Press.

nativereservations2003.shp

Native American reservations in 2003. Source: United States Geological Survey. 2003 *Federal Lands and Indian Reservations of the United States* . Reston, VA
<http://nationalatlas.gov/atlasftp.html>

precipitation_ewzones.shp

This rough approximation of precipitation regimes in Colorado is divided into Arid, Semi-arid, and Wet zones (in the *Precip* field). By using the identify tool, one can determine the precipitation zone (arid, semi-arid, or wet), AND the number of square mile of that zone found either east or west of the continental divide. For example “identify” a wet polygon west of the continental divide and you will obtain a *Sq_mile* of 10,383; then do the same for a wet polygon east of the continental divide and you will obtain a *Sq_mile* of 5,978. If one does the math, the result shows about 64% of wet areas are west of the continental divide and approximately 36% of wet areas are east of the continental divide.

pregold_trails.shp

This line theme includes significant pre-gold rush trails to the west coast. The trails include *Name* and length (*Miles*) fields.

reservoirs.shp

This polygon theme shows some of the major reservoirs in Colorado, including the *Name* of the reservoir. Source: USGS.

rivers.shp

Major rivers in Colorado is provided as a line theme, which includes a *Strname* (name of the river) field.

riversandmajortributaries.shp

This is a more detailed line theme of rivers and tributaries in Colorado.

rr_in1873.shp

All railroads in 1873 (with *Name* and *Miles*).

rr_in1879.shp

All railroads in 1879 (with *Name* and *Miles*).

rr_in1895.shp

All railroads in 1895 (with *Name* and *Miles*).

rr_in1913.shp

All railroads in 1913 (with *Name* and *Miles*).

rr_in2001.shp

All railroads in 2001 (with *Name* and *Miles*). The also includes 1) a field (*Isamtrak*) identifying the line as being used or not used by Amtrak, and 2) whether the line is used for passenger traffic (*Passenger*).

rrgrowth_1874-79.shp

Line theme that represents railroads constructed between 1874 and 1879 (with *Name* and *Miles*).

rrgrowth_1880-95.shp

Line theme that represents railroads constructed between 1880 and 1895 (with *Name* and *Miles*).

rrgrowth_1896-1913.shp

Line theme that represents railroads constructed between 1896 and 1913 (with *Name* and *Miles*).

ski_resorts.shp

This point theme shows Colorado's major ski resorts.

tourist_destination.shp

A point theme of some of the major tourist destinations in Colorado; the name of the tourist destination is in the *Attraction* field.

transmountainDiversion.shp

This theme displays nine of the major transmountain water diversions found in Colorado (bringing water from the West Slope to the East Slope). The *Name* field identifies the diversion,

while *Owner* field displays the owner of the diversion. Approximate annual diversion amounts can be found in the *Acre_feet* field.

us_contdivide.shp

This is a line theme of the continental divide within the lower 48 states (broken into 11 segments). The *Leng_miles* field includes the length of each segment.

western_cities_forts.shp

This is a point theme of 13 western cities and forts (includes *Name* field).

western_rivers.shp

A line theme of major western rivers, which includes the river's *Name* and major drainage system (*System*).

western_territories1860.shp

This is a polygon theme of western territories in 1860. The theme includes *Name* and *Sq_miles* fields.

western_us_lat_long_grid.shp

This latitude/longitude grid can be placed on top of other western US themes. Making this theme active and then using the "i" button to click on the appropriate line will provide the user with either a north latitude or west longitude location (*Value* field).

westernlakes.shp

This is a polygon theme of 10 major lakes/reservoirs in the western U.S. The *Area* field provides the features area in square miles.

(Other)

The user will also find 11 other folders in the **Economic** folder. These folders are named after a decade (ie. 1960) and include an Excel spreadsheet of demographic and economic data by county for that decade. A metadata file (ie. 1960_meta.doc) in Microsoft Word format explains the various fields/variables found in each spreadsheet. Most of the spreadsheets include total population, female, male, and some agricultural and manufacturing data. ALL of the data in these Excel files can also be found in the individual county boundary shapefiles.

Database Development:

*Dr. David M. Diggs, Dr. Phil Klein, Rosanna Slingerland
Dept. of Geography
University of Northern Colorado
Greeley, CO 80639*

Projection Information

North America Albers Equal Area Conic Projection
Central Meridian: -105.5
Standard Parallel 1: 37; Standard Parallel 2: 41; Latitude of Origin: 39

Datum: NAD 1983
Spheroid: GRS 1980

Data Sources:

Numerous sources have been used for the development of this database, including:

The United States Geological Survey

The National Atlas of the United States, by the U.S. Dept. of Interior; at <http://nationalatlas.gov>

United States Census Bureau

ESRI

Database use and copyright

Copyright, Department of Geography, University of Northern Colorado. 2004

There is unrestricted use of this database for educational and non-commercial purposes.