

Copyright © 1998–2002 ESRI. All rights reserved. Printed in the United States of America.

The information contained in this document is the exclusive property of ESRI. This work is protected under United States copyright law and other international copyright treaties and conventions. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system, except as expressly permitted in writing by ESRI. All requests should be sent to Attention: Contracts Manager, ESRI, 380 New York Street, Redlands, CA 92373-8100, USA.

The information contained in this document is subject to change without notice.

U.S. GOVERNMENT RESTRICTED/LIMITED RIGHTS

Any software, documentation, and/or data delivered hereunder is subject to the terms of the License Agreement. In no event shall the U.S. Government acquire greater than RESTRICTED/LIMITED RIGHTS. At a minimum, use, duplication, or disclosure by the U.S. Government is subject to restrictions as set forth in FAR §52.227-14 Alternates I, II, and III (JUN 1987); FAR §52.227-19 (JUN 1987) and/or FAR §12.211/12.212 (Commercial Technical Data/Computer Software); and DFARS §252.227-7015 (NOV 1995) (Technical Data) and/or DFARS §227.7202 (Computer Software), as applicable. Contractor/Manufacturer is ESRI, 380 New York Street, Redlands, CA 92373-8100, USA.

ESRI, ArcGIS, ArcMap, ArcInfo, MapData, GIS by ESRI, the ArcGIS logo, and www.esri.com are trademarks, registered trademarks, or service marks of ESRI in the United States, the European Community, or certain other jurisdictions.

Other companies and products mentioned herein are trademarks or registered trademarks of their respective trademark owners.

Contents

1 Introducing MapData 1

Developing mapping projects 2 Creating high-quality maps 3 Solving complex scenarios 4 Tips on learning MapData 5

2 Quick-start tutorial 7

Installing the MapLoader 8
Starting the MapLoader 8
Selecting the input drive 9
Selecting geographic regions
Selecting map layers 11
Extracting maps 11
Appending maps 13
Using MSA selection 13

3 Working with map layers 15

Map layer index 16
Map layer descriptions 17
Census Feature Class Definitions 38

Index 47

Introducing MapData

IN THIS CHAPTER

- Developing mapping projects
- Creating high-quality maps
- Solving complex scenarios
- Tips on learning MapData

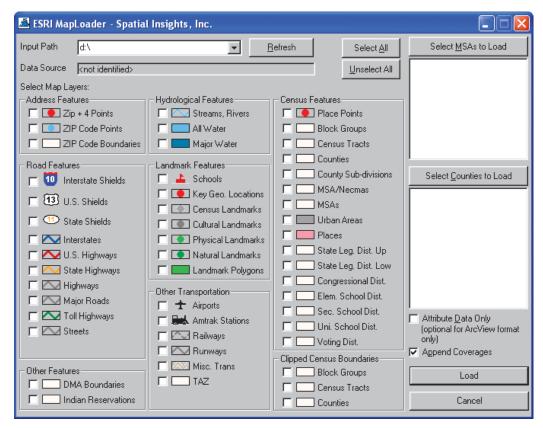
Welcome to ESRI® MapDataTM, the most comprehensive TIGER/Line®-based mapping product for the United States. MapData represents a valuable resource for a variety of applications, including demographic analysis, site selection, routing applications, and environmental evaluation. MapData gives you the power to:

- Develop custom mapping projects. MapData provides all of the tools necessary to select, extract, and prepare more than 50 layers of thematic information for 3,233 U.S. counties.
- Create high-quality custom maps. MapData was developed to provide high-quality cartographic output. Layers have been designed for effective display, and attributes have been formatted for optimum labeling.
- Solve complex geodemographic scenarios. MapData includes
 10 demographic variables that can be used to analyze trends and solve
 common problems. MapData boundary attributes are formatted to match
 ESRI Business Information Solutions (ESRI BIS) data and provide ease
 of use for extended problem solving.

This book explains how to build a mapping project with MapData using thematic layers. Chapter 2 is a tutorial in which you can learn how to create a mapping project using some basic ESRI MapLoaderTM processes; MapLoader is a map loading utility from Spatial Insights, Inc. Chapter 3 provides map layer descriptions and Census Feature Class Definitions.

Developing mapping projects

One of the most time-consuming tasks in developing a map is preparing base data for the project. MapData provides a solution to this problem. The ESRI MapLoader can be used to prepare a mapping project in a few basic steps. It can also be used to select thematic layers and a study region and extract this data directly to disk. A custom mapping project can be created in a few simple steps.

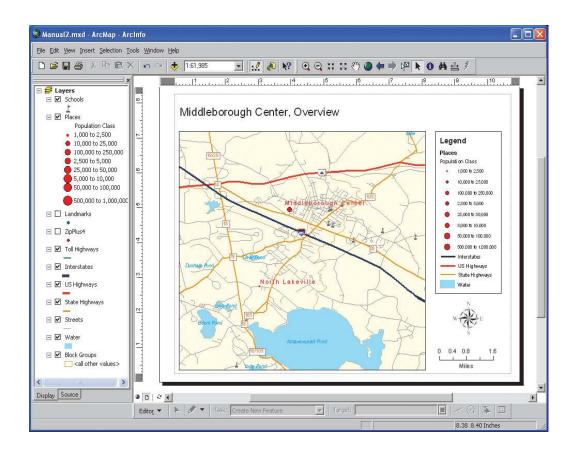


Select from more than 50 layers for 3,233 counties. When you select multiple counties, data is output as a single file.

2 USING ESRI MAPDATA

Creating high-quality maps

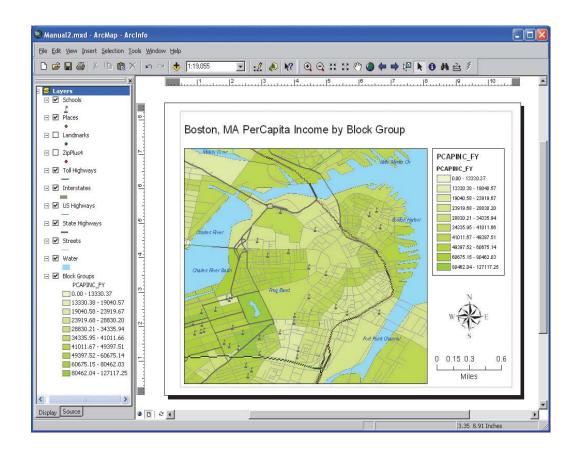
MapData layers are formatted to produce high-quality cartographic output. Highway data is preformatted for shield labeling, boundaries have been aggregated for efficient labeling, and line segments have been joined for faster rendering.



Introducing MapData 3

Solving complex scenarios

MapData delivers the necessary components for solving complex business scenarios. A detailed street network combined with current ZIP Code™ data provides a solid base for locational analysis. Precision-clipped water boundaries ensure accurate delineation and high-quality display for geodemographic projects. ESRI BIS data provides valuable insight into demographic trends and relationships.



4 USING ESRI MAPDATA

Tips on learning MapData

If you're new to GIS, remember that you don't have to learn everything about MapData to get immediate results. Begin learning MapData by reading Chapter 2, 'Quick-start tutorial'. In Chapter 2, you'll learn how easy it is to use the various tools in MapData, and you'll gain insight into the steps you can take to complete certain tasks. MapData comes with the data used in the tutorial, so you can follow along step by step at your computer. You can also read the tutorial without using your computer.

Finding answers to your questions

Like most people, your goal is to complete your tasks while investing a minimum amount of time and effort in learning how to use software. You want intuitive, easy-to-use software that gives you immediate results, without having to read pages of documentation. However, when you do have a question, you want the answer quickly so that you can complete your task. That's what this book is all about—getting you the answers you need when you need them.

This book describes geoprocessing tasks—from basic to advanced—that you'll perform with MapData. Although you can read this book from start to finish, you'll likely use it more as a reference. When you want to know how to do a particular task, such as operating a tool in batch mode, just look it up in the table of contents or index. What you'll find is a concise, step-by-step description of how to complete the task. Some chapters also include detailed information that you can read if you want to learn more about the concepts behind the tasks.

About this book

This book is designed to introduce MapData and its capabilities. The topics covered in the various tasks and the tutorial in Chapter 2 assume you are familiar with geoprocessing and the fundamentals of GIS. If you have never used a GIS before or feel

you need to refresh your knowledge, please take some time to read *Getting Started with ArcGIS*. It is not necessary to do so to continue with this book, but you should use it as a reference if you encounter tasks with which you are unfamiliar.

Getting help on your computer

In addition to this book, MapData software's online Help system is a valuable resource for learning how to use the software.

Contacting ESRI

If you need to contact ESRI for technical support, see the product registration and support card you received with MapData, or refer to 'Contacting Technical Support' in the 'Getting more help' section of the online Help system. You can also visit ESRI on the Web at www.esri.com and support.esri.com for more information on MapData.

ESRI education solutions

ESRI provides educational opportunities related to geographic information science, GIS applications, and technology. You can choose among instructor-led courses, Web-based courses, and self-study workbooks to find education solutions that fit your learning style. For more information, go to www.esri.com.

Introducing MapData 5

Quick-start tutorial

2

IN THIS CHAPTER

- Installing the MapLoader
- Starting the MapLoader
- · Selecting the input drive
- · Selecting geographic regions
- · Selecting map layers
- Extracting maps
- Appending maps
- Using MSA selection

The first step in creating a map is to locate the data you want to put on it. Finding, organizing, and formatting this data is often a time-consuming task. The ESRI MapLoader was created with the goal of making map selection and preparation as simple as possible, allowing time for the more important aspects of cartography, such as analysis and presentation.

MapData includes more than 55 thematic layers for 3,233 U.S. counties and regions. This substantial database represents more than 150,000 individual maps. Creating a custom project from this database can be completed in a few basic steps. The MapLoader provides a simple interface for selecting a set of thematic layers and choosing a geographic region. Once this information is selected the MapLoader compiles the entire map set into a single output folder.

The best way to learn about building a mapping project with MapData is to try it yourself. This tutorial guides you through some basic MapLoader processes as you create a mapping project for San Diego County, California.

Installing the MapLoader

ESRI MapLoader can be installed on Windows® 95/98, Windows NT® 4.0, and Windows 2000/XP using the Setup file (Setup.exe) provided in the setup directory of any MapData CD–ROM. Follow the onscreen instructions to complete the MapLoader installation. Detailed installation instructions are available in the docs folder on each MapData CD–ROM. After the MapLoader has been installed, it can be accessed from the Windows Start menu.

- 1. Browse to the Setup folder in the root directory of the MapData CD/DVD.
- 2. Run the Setup.exe file and follow the onscreen instructions.

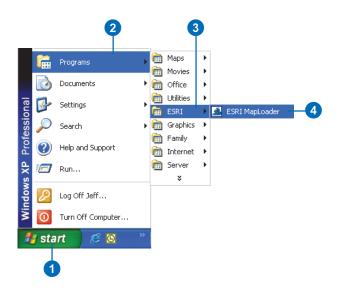


The MapLoader cannot be installed on top of a previous installation. If you are prompted to remove the MapLoader, you must do so before reinstallation.

Starting the MapLoader

ESRI MapLoader is designed so you can easily extract geographic and thematic components for your mapping project. To illustrate this process, try the simple tutorial below, which guides you through the basic steps of building an overview map for San Diego, California.

- 1. Click the Start button on the Windows taskbar.
- 2. Point to Programs.
- 3. Point to ESRI.
- 4. Click ESRI MapLoader.

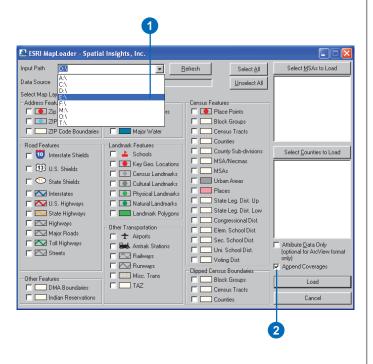


8 USING ESRI MAPDATA

Selecting the input drive

Because many users have two or more CD-ROM drives in their computers, the MapLoader provides an option to select an input drive. The input drive holds the MapData CD-ROM or DVD-ROM where you will load maps.

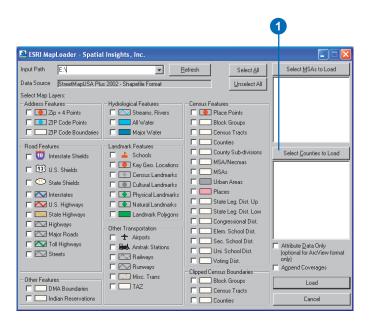
- 1. Click the Drive icon and scroll to the appropriate drive. Select drive E:\ as your input drive.
- 2. Uncheck Append Coverages. The Append functionality will not be used in this example.



Selecting geographic regions

In this exercise you will learn how to define a study area. To load a specific geographic region, choose a collection of states and/or counties.

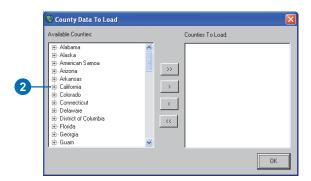
1. Click Select Counties to Load.



9

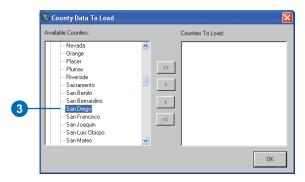
The County Data To Load dialog box displays a list of U.S. states; each state can be expanded to display its component counties.

2. Select and expand California from the Available Counties menu.



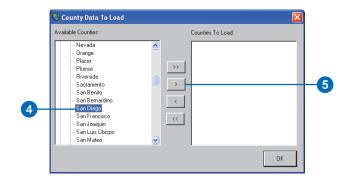
More than one state can be selected at once by holding down the Shift key while selecting.

3. Scroll down the Available Counties dropdown list until you reach San Diego.



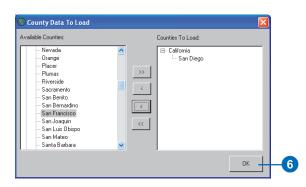
More than one county can be selected at once by holding down the Shift key while selecting.

- 4. Select San Diego County.
- 5. Click the > button to move San Diego County to the Counties To Load list.



San Diego County is now selected to load. It appears in the Counties To Load list.

6. Click OK.

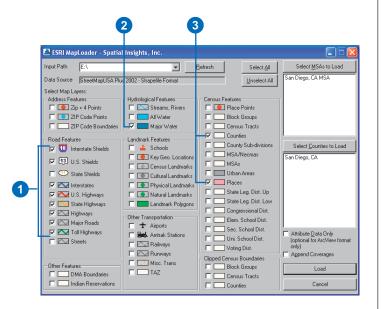


A county can be removed from the Counties To Load list by selecting the county and clicking the < button.

Selecting map layers

MapData has more than 50 thematic layers that can be utilized for a project. In this exercise you will select layers suited for a general overview map of San Diego County. To select any layer, check the check box beside the appropriate layer. Select layers appropriate for an overview map of San Diego.

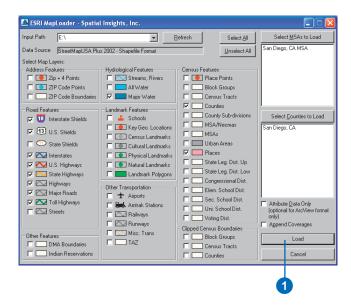
- 1. Check Interstate Shields, U.S. Shields, Interstates, U.S. Highways, State Highways, Highways, Major Roads, and Toll Highways in the Road Features box.
- 2. Check Major Water in the Hydrological Features box.
- 3. Check Counties and Places in the Census Features box.



Extracting maps

After selecting your geography and map layers, you can extract the custom project to disk.

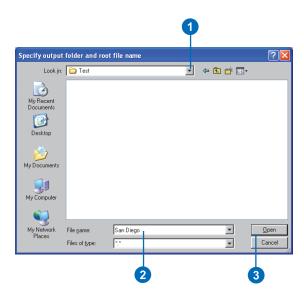
1. Click Load.



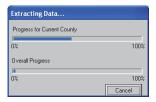
Quick-start tutorial 11

The MapLoader opens a new dialog box from which you can select your destination folder.

- Click the Look in dropdown arrow and navigate to a directory. This directory is the destination folder for your project and can be any folder that suits your requirements. For this example select the Test folder.
- 2. In the File name box, type a name for your project. This name is the file suffix that will be appended to each of the layers in your project. For this example select San Diego.
- 3. Click Open.



The project should now be extracting to disk. The current progress is illustrated in the Extracting Data dialog box.



When extraction is finished, a report is displayed in the Data Loader dialog box. It is common for errors to be reported in the Errors encountered list box. In most cases these errors represent situations in which a map layer was not available for a selected geography. There are several valid instances in which this would be true. For example, Interstate highway segments do not pass through all counties.

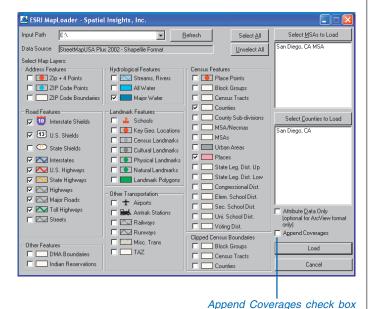
4 Click OK



Your mapping project can now be accessed from your mapping application. For this example open your San Diego maps from the test folder. Consult your mapping application for more information about opening map files. *Using ArcMap* is an excellent resource for ArcGISTM and ArcMapTM users.

Appending maps

The MapLoader includes the capability for appending geographic regions as a single file. This utility is useful for building projects that cover more than one county. To utilize the append function, the Append Coverages check box on the MapLoader window must be checked.



Using MSA selection

A common unit of geography used in many mapping projects is a Metropolitan Statistical Area (MSA). MSAs are composed of groups of counties usually defining a larger metropolitan area. The MapLoader has a Select MSAs to Load function that allows users to define their projects by MSA. By selecting an MSA the group of counties composing that MSA is loaded to the Counties To Load list box. These counties could now be loaded to a unique project.

Quick-start tutorial 13

Working with map layers

3

IN THIS CHAPTER

- Map layer index
- Map layer descriptions
- Census Class Feature Definitions

MapData provides a rich set of thematic layers. These layers have been derived from a variety of sources, including the United States Census Bureau, the United States Geological Survey (USGS), the United States Department of Transportation (USDOT), and the United States Postal Service® (USPS®).

The first section in this chapter is provided as a guide to the source and structure of each layer.

A map layer index provides a basic list of all MapData layers and their corresponding file prefixes.

The map layer descriptions section provides a more detailed overview of each map layer, including data source, compilation date, and feature and attribute information.

The final section of this chapter outlines the basic classification system used by the United States Census Bureau for the classification of feature attributes. Census Feature Class Codes (CFCCs) are provided with detailed descriptions.

Map layer index

| File Prefix | Map Layer Description | File Prefix | Map Layer Description |
|-------------|---|-------------|----------------------------------|
| AI | Airports | PL | Places |
| AIR | American Indian Reservations | PLC | Places (Clipped) |
| AIT | American Indian Tribal Subdivisions | PLP | Place Points |
| AM | Amtrak | PP | Pollution Points |
| ARC | Alaska Native Regional Corporations | PUM | PUMA 5% |
| BG | Block Groups | RD | Roads |
| BGC | Block Groups (Clipped) | RR | Railroads |
| CD6 | Congressional Districts 106 | RWL | Runways |
| CDC | Congressional Districts Current | SCH | Schools (Points) |
| CO | Counties | SEC | Secondary School Districts |
| COC | Counties (Clipped) | SLL | State Legislative District Lower |
| CSD | County Subdivisions | SLU | State Legislative District Upper |
| CU | Cultural Landmarks | STH | State Highways |
| DMA | Designated Market Areas | STL | State Highway Labels |
| ELM | Elementary School Districts | TAZ | Traffic Analysis Zone |
| HD | Hydrology | TR | Census Tracts |
| HY | Highways (Other) | TRC | Census Tracts (Clipped) |
| INH | Interstate Highways | UA | Urban Areas |
| INL | Interstate Highway Labels | UNI | Unified School Districts |
| KGL | Key Geographic Locations | USH | U.S. Highways |
| LD | Landmark Polygons | USL | U.S. Highway Labels |
| LP | Landmark Points | VOT | Voting Districts |
| MI | Miscellaneous Line Features | WA | Water |
| MR | Major Roads (Other) | WMJ | Major Water Features |
| MSA | Metropolitan Statistical Areas | Z4 | ZIP+4 Points |
| MSN | MSA/New England County Metropolitan Areas | ZCB | ZIP Code Boundaries |
| NA | Natural Landmarks | ZCP | ZIP Code Points |
| PH | Physical Landmarks | ZCT | ZIP Code Tabulation Areas |
| | | | |

Map layer descriptions

The following section outlines the basic properties of MapData map layers.

Projection and datum

All MapData layers are in latitude/longitude coordinates, using NAD83 datum, with the exception of Hawaii and the Pacific Island areas, which use regional projections.

Common properties

The following properties are provided as reference to each MapData map layer. Each description includes the following information:

- Thematic map layer description—a short outline describing the contextual significance of the map layer
- Filename prefix—the three-character prefix assigned to all county-based files representing the specific map layer
- Feature type—the map data structure
- Source—the original data source and publication date
- Source scale—the original source mapping scale as defined by United States mapping standards
- Attribute information—the structure and thematic content of the map layer's attribute table

Note: All map layers include some form of descriptive geographic information; some of these attributes have been predefined to reduce redundancy in the definitions. The following attributes are present on many layers.

| ATTRIBUTE | DESCRIPTION |
|-----------|---|
| COUNTY | County name |
| FISPSTCO | Full federal information processing code for county |

| STATE | State name |
|------------|--|
| STATE_ABRV | State postal abbreviation |
| FIPSST | Full federal information processing code for state |
| AREA_MI | Feature area in miles |
| LENGTH_MI | Feature length in miles |

Demographics

Common census boundaries are provided with a basic set of ESRI BIS demographic variables. The following attributes are available.

| 0 1 | S |
|------------|--------------------------------------|
| ATTRIBUTE | DESCRIPTION |
| POP_CY | Population current year |
| POP_FY | Population five-year estimate |
| POP_GROWTH | Population growth rate |
| MEDAGE_CY | Median age current year |
| MEDAGE_FY | Median age five-year estimate |
| PCAPINC_CY | Per capita income current year |
| PCAPINC_FY | Per capita income five-year estimate |
| PCI_GROWTH | Per capita income growth rate |
| MALES_CY | Males current year |
| FEMALES_CY | Females current year |
| HHS_CY | Households current year |
| HHS_FY | Households five-year estimate |
| HH_GROWTH | Household growth rate |
| AVHHSIZ_CY | Average household size current year |
| AVDSPINC | Average spending income |
| BUDGET_FOO | Budget index food |
| | |

Working with Map Layers 17

| BUDGET_HOU | Budget index housing | |
|---|------------------------|--|
| BUDGET_TRA | Budget index travel | |
| BUDGET_EDU | Budget index education | |
| BUDGET_NEW | Budget index news | |
| For more information visit ESRI BIS on the Web at http://www.esribis.com/ . | | |

Address features

ZIP+4 points

ZIP+4 points define the location of nine-digit codes assigned by the U.S. Postal Service to a section of a street for the delivery of mail.

Filename prefix: Z4_ Feature type: point

Source: MapData ZIPs 2002

Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|---------|-----------------------------|
| ZIPCODE | char(5) | Five-digit USPS postal code |
| ZIP4 | char(4) | Four-digit USPS add-on code |

ZIP Code points

ZIP Code points define the approximate centroid of five-digit ZIP Codes assigned by the U.S. Postal Service for the delivery of mail.

Filename prefix: ZCP Feature type: point

Source: MapData ZIPs 2002

Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|------------|----------|-----------------------------------|
| ID | char(5) | Five-digit USPS postal code |
| NAME | char(66) | Assigned postal name |
| NAME_TYPE | char(66) | Name type (PO, Place, etc.) |
| ZIP_CLASS | char(21) | ZIP Code class |
| POINT_TYPE | char(10) | Centroid type |
| ENC_ZIP | char(10) | Enclosing ZIP Code boundary ID |

Centroid Types: B = Boundary centroid, P = Point centroid

ZIP Code boundaries

ZIP Code boundaries define approximate five-digit USPS delivery areas.

Filename prefix: ZCB
Feature type: region

Source: MapData ZIPs 2002

Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|-----------------------------|
| ID | char(5) | Five-digit USPS postal code |
| NAME | char(66) | Assigned postal name |
| NAME_TYPE | char(66) | Name type (PO, Place, etc.) |
| ZIP_CLASS | char(21) | ZIP Code class |

ZIP Code Tabulation Areas

ZIP Code Tabulation Areas (ZCTAsTM) are approximate area representations of USPS ZIP Code service areas that the U.S. Census Bureau created for statistical purposes for Census 2000.

Filename prefix: ZCT Feature type: region

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|---------|-----------------------------|
| ID | char(5) | Five-digit USPS postal code |

Road features

Interstate Highway labels

Interstate Highway labels represent midpoints along unique stretches of interstate highways. These points were placed on line segments greater than five miles long.

Filename prefix: INL Feature type: point

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|--------------|-----------------------|
| HIGHWAY | char(20) | Highway name |
| SYMBOL | char(10) | Highway symbol |
| TYPE | char(30) | Highway type |
| SYMLENGTH | number(11,0) | Highway symbol length |

Interstate Highways

Interstate Highways as defined by the U.S. Department of Transportation.

Filename prefix: INH Feature type: line Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|-------------------|
| HIGHWAY | char(20) | Highway name |
| SYMBOL | char(10) | Highway symbol |
| TYPE | char(30) | Highway subclass |
| INH | char(20) | Interstate name |
| USH | char(20) | U.S. highway name |
| STH | char(20) | State route name |

US Highway labels

US Highway labels represent midpoints along unique stretches of U.S. highways. These points were placed on line segments greater than two-and-a-half miles long.

Filename prefix: USL Feature type: point

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|--------------|-----------------------|
| HIGHWAY | char(20) | Highway name |
| SYMBOL | char(10) | Highway symbol |
| TYPE | char(30) | Highway type |
| SYMLENGTH | number(11,0) | Highway symbol length |

US Highways

US Highways as defined by the U.S. Department of Transportation and state agencies.

Working with map layers 19

Filename prefix: USH

Feature type: line

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|-------------------|
| HIGHWAY | char(20) | Highway name |
| SYMBOL | char(10) | Highway symbol |
| TYPE | char(30) | Highway subclass |
| INH | char(20) | Interstate name |
| USH | char(20) | U.S. highway name |
| STH | char(20) | State route name |

State Highway labels

State Highway labels represent midpoints along unique stretches of state highways. These points were manually selected for efficient cartographic labeling.

Filename prefix: STL

Feature type: point

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|--------------|-----------------------|
| HIGHWAY | char(20) | Highway name |
| SYMBOL | char(10) | Highway symbol |
| TYPE | char(30) | Highway type |
| SYMLENGTH | number(11,0) | Highway symbol length |

State Highways

State Highways and Routes as defined by the U.S. Department of Transportation and state agencies.

Filename prefix: STH

Feature type: line

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|-------------------|
| HIGHWAY | char(20) | Highway name |
| SYMBOL | char(10) | Highway symbol |
| TYPE | char(30) | Highway subclass |
| INH | char(20) | Interstate name |
| USH | char(20) | U.S. highway name |
| STH | char(20) | State route name |

Toll Highways

Toll Highways represent highways and routes that charge a fee for use.

Filename prefix: TOL Feature type: line

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|---------------------------|
| NAME | char(41) | Highway name |
| CFCC | char(3) | Census Feature Class Code |

20 USING ESRI MAPDATA

| ALTNAME1 | char(30) | Alternate street name 1 |
|----------|----------|-------------------------|
| ALTNAME2 | char(30) | Alternate street name 2 |
| ALTNAME3 | char(30) | Alternate street name 3 |
| ALTNAME4 | char(30) | Alternate street name 4 |
| INH | char(20) | Interstate name |
| USH | char(20) | U.S. highway name |
| STH | char(20) | State route name |
| | | |

Highways

Roads not found in map layers INH, USH, and STH but defined by Census Feature Classes A11–A28. In 'Census Class Feature Definitions' in this chapter, see Feature Class A, Road. See 'Census Feature Classes'.

Filename prefix: TOL Feature type: line

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|---------------------------|
| STREET | char(40) | Street name |
| FEDIRP | char(2) | Feature direction prefix |
| FENAME | char(30) | Feature name |
| FETYPE | char(4) | Feature type |
| FEDIRS | char(2) | Feature direction suffix |
| CFCC | char(3) | Census Feature Class Code |
| FRADDL | char(11) | From address left |
| TOADDL | char(11) | To address left |
| | | |

| FRADDR | char(11) | From address right |
|----------|----------|------------------------------------|
| TOADDR | char(11) | To address right |
| ZIPL | char(5) | ZIP Code left |
| ZIPR | char(5) | ZIP Code right |
| PLACEL | char(35) | Census designated place name left |
| PLACER | char(35) | Census designated place name right |
| ALTNAME1 | char(30) | Alternate street name 1 |
| ALTNAME2 | char(30) | Alternate street name 2 |
| ALTNAME3 | char(30) | Alternate street name 3 |
| ALTNAME4 | char(30) | Alternate street name 4 |

Major Roads

Roads not found in map layers INH, USH, and STH but defined by Census Feature Classes A31–A38. In 'Census Class Feature Definitions' in this chapter, see Feature Class A, Road. See 'Census Feature Classes'.

 $Filename\ prefix: MR_$

Feature type: line

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|--------------------------|
| STREET | char(40) | Street name |
| FEDIRP | char(2) | Feature direction prefix |
| FENAME | char(30) | Feature name |
| FETYPE | char(4) | Feature type |
| FEDIRS | char(2) | Feature direction suffix |

Working with map layers 21

| CFCC | char(3) | Census Feature Class Code | FEDIRS | char(2) | Feature direction suffix |
|------------|----------|---------------------------|----------|----------|---------------------------|
| FRADDL | char(11) | From address left | CFCC | char(3) | Census Feature Class Code |
| TOADDL | char(11) | To address left | FRADDL | char(11) | From address left |
| FRADDR | char(11) | From address right | TOADDL | char(11) | To address left |
| TOADDR | char(11) | To address right | FRADDR | char(11) | From address right |
| ZIPL | char(5) | ZIP Code left | TOADDR | char(11) | To address right |
| ZIPR | char(5) | ZIP Code right | ZIPL | char(5) | ZIP Code left |
| PLACEL | char(35) | CDP name left | ZIPR | char(5) | ZIP Code right |
| PLACER | char(35) | CDP name right | PLACEL | char(35) | CDP name left |
| ALTNAME1 | char(30) | Alternate street name 1 | PLACER | char(35) | CDP name right |
| ALTNAME2 | char(30) | Alternate street name 2 | ALTNAME1 | char(30) | Alternate street name 1 |
| ALTNAME3 | char(30) | Alternate street name 3 | ALTNAME2 | char(30) | Alternate street name 2 |
| ALTNAME4 | char(30) | Alternate street name 4 | ALTNAME3 | char(30) | Alternate street name 3 |
| - . | | | ALTNAME4 | char(30) | Alternate street name 4 |

Roads

Roads are defined by Census Feature Classes A11–A74. In 'Census Class Feature Definitions' in this chapter, see Feature Class A, Road. See 'Census Feature Classes'.

 $Filename\,prefix; RD_$

Feature type: line

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|--------------------------|
| STREET | char(40) | Street name |
| FEDIRP | char(2) | Feature direction prefix |
| FENAME | char(30) | Feature name |
| FETYPE | char(4) | Feature type |

Transportation features

Airports

Public use airports—Landing facilities in the United States

Filename prefix: AI_ Feature type: point Source: USDOT 1995

Source scale: varies from 1:360 to 1:2,000,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|----------------|
| NAME | char(66) | Airport name |
| SYMBOL | char(10) | Airport symbol |

Amtrak stations

Amtrak stations/Railway terminals

Filename prefix: AM_ Feature type: point Source: USDOT 1996

Source scale: varies from 1:360 to 1:2,000,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|-----------------------|
| NAME | char(66) | Amtrak station name |
| SYMBOL | char(10) | Amtrak station symbol |

Miscellaneous transportation features

Miscellaneous transportation features as defined by Census Feature Class C. In 'Census Class Feature Definitions' in this chapter, see Feature Class C, Miscellaneous ground transportation.

Filename prefix: MI_ Feature type: line

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|------------------------------------|
| MISC_NAME | char(66) | Miscellaneous name |
| CLASS | char(66) | Census Feature Class Definition |
| CFCC | char(3) | Census Feature Class Code |

Railways

Railway features as defined by Census Feature Class B. In 'Census Class Feature Definitions' in this chapter, see Feature Class B, Railroad.

Filename prefix: RR_

Feature type: line

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|------------------------------------|
| RAILWAY | char(66) | Railway name |
| CLASS | char(66) | Census Feature Class Definition |
| CFCC | char(3) | Census Feature Class Code |

Runways

Runways associated with the public use airports

Filename prefix: RWL Feature type: line Source: USDOT 1995 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|--------------|-----------------------|
| NAME | char(42) | Runway name |
| SITE_NO | char(11) | Site number |
| LOCID | char(10) | Landing facility ID |
| CITY | char(26) | Runway city |
| RWY_ID | char(7) | Runway identification |
| RWY_LEN | decimal(5,0) | Runway length |
| RWY_WDTH | decimal(4,0) | Runway width |

Working with Map Layers 23

Water features

Hydrology

Hydrologic features as defined by Census Feature Class H. In 'Census Class Feature Definitions' in this chapter, see Feature Class H, Hydrography.

Filename prefix: HD_ Feature type: line

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|------------------------------------|
| NAME | char(66) | Hydrographic feature name |
| CLASS | char(77) | Census Feature Class Definition |
| CFCC | char(3) | Census Feature Class Code |

Major water boundaries

Lakes, oceans, and bodies of water represented by areas (polygons). Includes such features as canals, reservoirs, and large rivers. Major water features have a surface area of more than two square miles.

Filename prefix: WMJ Feature type: region

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|--|--------------|------------------------------------|
| NAME | char(66) | Water feature name |
| CLASS | char(77) | Census Feature Class Definition |
| CFCC | char(3) | Census Feature Class Code |
| WATERFLAG | number(11,0) | MapData Water Class |
| MapData Water Classes: 1 = Inland, 2 = Inland Major, 3 = Coastal | | |

Water boundaries

Lakes, oceans, and bodies of water represented by areas (polygons). Includes such features as canals, reservoirs, and large rivers.

Filename prefix: WA_ Feature type: region Source: TIGER/Line 2000

Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|--|--------------|------------------------------------|
| NAME | char(66) | Water feature name |
| CLASS | char(77) | Census Feature Class Definition |
| CFCC | char(3) | Census Feature Class Code |
| WATERFLAG | number(11,0) | MapData Water Class |
| MapData Water Classes: 1 = Inland, 2 = Inland Major, 3 = Coastal | | |

24 USING ESRI MAPDATA

Census landmark features

Key geographic locations

Key geographic locations (KGLs) represent a special class of landmark information. These cases include airports, shopping centers, schools, condominiums, hotels, and apartment complexes.

Filename prefix: KGL Feature type: region

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|------------------------------------|
| NAME | char(30) | Key geographic location |
| CLASS | char(77) | Census Feature Class Definition |
| CFCC | char(3) | Census Feature Class Code |

Landmark points

Landmarks from the Census TIGER® database. In 'Census Class Feature Definitions' in this chapter, see Feature Class D, Landmark, for a detailed description of features.

Filename prefix: LP_ Feature type: point

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|------------------------------------|
| NAME | char(30) | Landmark name |
| CLASS | char(77) | Census Feature Class Definition |
| CFCC | char(3) | Census Feature Class Code |

Landmark polygons

Landmarks from the Census TIGER database. In 'Census Class Feature Definitions' in this chapter, see Feature Class D, Landmark, for a detailed description of features.

Filename prefix: LD_ Feature type: region Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|----------------------|
| NAME | char(30) | Landmark name |
| CLASS | char(77) | Census Feature Class |

USGS landmark features

Cultural landmarks

Cultural landmarks represent man-made features or locations with cultural significance.

Filename prefix: CU_ Feature type: point

Source: USGS Geographic Names Information System (GNIS)

Source scale: varies from 1:360 to 1:2,000,000

Working with map layers 25

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|---------------|
| NAME | char(66) | Landmark name |
| CLASS | char(9) | Landmark type |

Cultural landmark class definitions

Airport—a man-made facility maintained for the use of aircraft, such as an airfield, airstrip, landing field, or landing strip.

Building—a man-made structure with walls and a roof for protection of people and/or materials but not including churches, hospitals, or schools.

Cemetery—a place or area for burying the dead, such as burial, burying ground, grave, or memorial garden.

Church—a building used for religious worship, such as a chapel, mosque, synagogue, tabernacle, or temple.

Civil—a political division formed for administrative purposes, such as a borough, county, municipality, parish, town, or township.

Hospital—a building where the sick or injured may receive medical or surgical attention, such as an infirmary.

Locale—a place at which there is or was human activity, such as battlefields, crossroads, camps, farms, ghost towns, landings, railroad sidings, ranches, ruins, sites, stations, or windmills; it does not include populated places, mines, and dams.

Military—a military installation.

Park—a place or area set aside for recreation or preservation of a cultural or natural resource and under some form of government administration.

Reserve—a tract of land set aside for a specific use; it does not include forests, civil divisions, or parks.

School—a building or group of buildings used as an institution for study, teaching, and learning, such as an academy, college, high school, or university.

PO—a building or group of buildings used for U.S. postal services.

Ppl—a populated place; a place or area with clustered or scattered buildings and a permanent human population, such as a city, settlement, town, or village.

Natural landmarks

Natural landmarks represent naturally occurring physical features.

Filename prefix: NA_

Feature type: point

Source: USGS GNIS

Source scale: varies from 1:360 to 1:2,000,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|---------------|
| NAME | char(66) | Landmark name |
| CLASS | char(9) | Landmark type |

Natural landmark class definitions

Arch—a natural arch-like opening in a rock mass such as a bridge, natural bridge, or sea arch.

Area—any one of several areally extensive natural features not included in other categories, such as badlands, barren, delta, fan, or garden.

Arroyo—a watercourse or channel through which water may occasionally flow, such as a coulee, draw, gully, or wash.

Bar—a natural accumulation of sand, gravel, or alluvium forming an underwater or exposed embankment, such as a ledge, reef, sandbar, shoal, or spit.

26 USING ESRI MAPDATA

Basin—a natural depression or relatively low area enclosed by higher land, such as an amphitheater, cirque, pit, or sink.

Bay—an indentation of a coastline or shoreline enclosing a part of a body of water; a body of water partly surrounded by land, such as an arm, bight, cove, estuary, gulf, inlet, or sound.

Beach—the sloping shore along a body of water that is washed by waves or tides and is usually covered by sand or gravel, such as a coast, shore, or strand.

Bench—an area of relatively level land on the flank of an elevation, such as a hill, ridge, or mountain, where the slope of the land rises on one side and descends on the opposite side (level).

Bend—a curve in the course of a stream and/or the land within the curve; a curve in a linear body of water, such as a bottom, loop, or meander.

Cape—a projection of land extending into a body of water, such as a lea, neck, peninsula, or point.

Cave—a natural underground passageway or chamber or a hollowed out cavity in the side of a cliff, such as a cavern or grotto.

Channel—a linear deep part of a body of water through which the main volume of water flows and is frequently used as a route for watercraft, such as a passage, reach, strait, or thoroughfare.

Cliff—a very steep or vertical slope, such as a bluff, crag, head, headland, nose, palisades, precipice, promontory, rim, or rimrock.

Crater—a circular-shaped depression at the summit of a volcanic cone or one on the surface of the land caused by the impact of a meteorite; a man-made depression caused by an explosion, such as a caldera or lua.

Falls—a perpendicular or very steep fall of water in the course of a stream, such as a cascade, cataract, or waterfall.

Flat—a relatively level area within a region of greater relief, such as a clearing, glade, or playa.

Forest—a bounded area of woods, forest, or grassland under the administration of a political agency (see Woods), such as a national forest, national grasslands, or state forest.

Gap—a low point or opening between hills or mountains or in a ridge or mountain range, such as a col, notch, pass, saddle, water gap, or wind gap.

Geyser—an eruptive spring from which hot water and/or steam and, in some cases, mud are periodically thrown.

Glacier—a body or stream of ice moving outward and downslope from an area of accumulation; an area of relatively permanent snow or ice on the top or side of a mountain or mountainous area, such as an icefield, ice patch, or snow patch.

Gut—a relatively small coastal waterway connecting larger bodies of water or other waterways, such as a creek, inlet, or slough.

Harbor—a sheltered area of water where ships or other watercraft can anchor or dock, such as a hono, port, roads, or roadstead.

Island—an area of dry or relatively dry land surrounded by water or low wetland, such as an archipelago, atoll, cay, hammock, hummock, isla, isle, key, moku, or rock.

Isthmus—a narrow section of land in a body of water connecting two larger land areas.

Lake—a natural body of inland water, such as a backwater, lac, lagoon, laguna, pond, pool, resaca, or waterhole.

Lava—formations resulting from the consolidation of molten rock on the surface of the Earth, such as kepula or lava flow.

Levee—a natural or man-made embankment flanking a stream, such as a bank or berm.

Working with Map Layers 27

Pillar—a vertical, standing, often spire-shaped, natural rock formation, such as a chimney, monument, pinnacle, pohaku, or rock tower.

Plain—a region of general uniform slope, comparatively level and of considerable extent, such as a grassland, highland, kula, plateau, or upland.

Range—a chain of hills or mountains; a somewhat linear, complex mountainous or hilly area, such as a cordillera or sierra.

Rapids—a fast-flowing section of a stream, often shallow and with exposed rock or boulders, such as a riffle or ripple.

Ridge—an elevation with a narrow, elongated crest that can be part of a hill or mountain, such as a crest, cuesta, escarpment, hogback, lae, rim, or spur.

Sea—a large body of salt water, such as a gulf or ocean.

Slope—a gently inclined part of the Earth's surface, such as a grade or pitch.

Spring—a place where underground water flows naturally to the surface of the Earth, such as a seep.

Stream—a linear body of water flowing on the Earth's surface, such as an anabranch, awawa, bayou, branch, brook, creek, distributary, fork, kill, pup, rio, river, run, or slough.

Summit—a prominent elevation rising above the surrounding level of the Earth's surface; it does not include a pillar, ridge, or range but does include an ahu, berg, bald, butte, cerro, colina, cone, cumbre, dome, head, hill, horn, knob, knoll, mauna, mesa, mesita, mound, mount, mountain, peak, puu, rock, sugarloaf, table, or volcano.

Swamp—a poorly drained wetland, fresh or salt water, wooded or grassy, possibly covered with open water, such as a bog, cienega, marais, marsh, or pocosin.

Valley—a linear depression in the Earth's surface that generally slopes from one end to the other, such as a barranca, canyon, chasm, cove, draw, glen, gorge, gulch, gulf, hollow, or ravine.

Woods—a small area covered with a dense growth of trees; it does not include an area of trees under the administration of a political agency (see Forest).

Physical landmarks

Physical landmarks represent man-made features that are not culturally central locations.

Filename prefix: PH_
Feature type: point
Source: USGS GNIS

Source scale: varies from 1:360 to 1:2.000.000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|---------------|
| NAME | char(66) | Landmark name |
| CLASS | char(9) | Landmark type |

Physical landmark class definitions

Bridge—a man-made structure carrying a trail, road, or other transportation system across a body of water or depression, such as a causeway, overpass, or trestle.

Canal—a man-made waterway used by watercraft or for drainage, irrigation, mining, or water power, such as a ditch or lateral.

Crossing—a place where two or more routes of transportation form a junction or intersection, such as an overpass or underpass.

Dam—a water barrier or embankment built across the course of a stream or into a body of water to control and/or impound the flow of water, such as a breakwater, dike, or jetty.

Mine—a place or area from which commercial minerals are or were removed from the Earth, not including oilfields, such as a pit, quarry, or shaft.

Oilfield—an area where petroleum is or was removed from the Earth.

Reservoir—an artificially impounded body of water, such as a lake or tank

Trail—a route for passage from one point to another, such as a jeep trail, path, or ski trail; it does not include roads or highways.

Tower—a man-made structure, higher than its diameter, generally used for observation, storage, or electronic transmission.

Tunnel—a linear underground passageway open at both ends.

Well—a man-made shaft or hole in the Earth's surface used to obtain fluid or gaseous materials.

Other landmark features

Pollution points

Pollution points represent pollution emission sites throughout the continental United States. They are a combination of the National Acid Precipitation Assessment Program 1985 inventory and more recent data from 1990. Each point in this coverage represents a factory or power plant or other emission site located within the United States. The first four listed pollutants—volatile organic compounds (VOC), nitrogen oxides (NOX), carbon monoxide (CO), and sulfur dioxide (SO²)—represent data from 1990. The rest of the data (pollutants sulfate ion [SO⁴] and trisodium phosphate [TSP]) is dated from 1985. This information is reported in tons per year.

Filename prefix: PP_

Feature type: point

Source: National Parks Service, 1994

Source scale: varies from 1:360 to 1:2,000,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|--------------|---------------|
| NAME | char(66) | Facility name |
| SIC | number(11,0) | SIC Code |

Schools

The list of schools comes from the National Center for Education Statistics database. The addresses were geocoded against TIGER/Line 2000.

Filename prefix: SCH

Feature type: point

Source: National Center for Education Statistics (NCES)

Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|------------|--------------|-----------------------------|
| NAME | char(50) | School name |
| TYPE | char(20) | School type |
| FILE | char(20) | School level |
| ENROLLMENT | number(11,0) | Student enrollment |
| ADDRESS | char(60) | Street address |
| PLACE | char(30) | School town/place |
| ZIPCODE | char(5) | Five-digit USPS ZIP Code |
| ZIP4 | char(4) | Four-digit USPS add-on code |
| PHONE | char(12) | Phone number |

Working with map layers 29

Census features

American Indian reservations

Reservation boundaries delineate American Indian entities with boundaries established by treaty, statute, and/or executive or court order. Federal and individual state governments have established reservations as territory over which American Indians have governmental jurisdiction. These entities are designated as colonies, communities, pueblos, rancherias, reservations, and reserves. The federally recognized reservations, their names, and their boundaries are identified for the Census Bureau by the Bureau of Indian Affairs, an agency in the U.S. Department of the Interior; state governments identify the names and boundaries of state reservations.

Filename prefix: AIR Feature type: region

Source: TIGER/Line 2000 Source scale: 1:100 000

| Source scale. 1.100,000 | | |
|-------------------------|-----------|------------------------------------|
| ATTRIBUTE | TYPE | DESCRIPTION |
| ID | char(5) | AIR ID (FIPS 55 code) |
| NAME | char(60) | AIR name |
| AIRFIPS | char(5) | FIPS 55 code (AIR) |
| AIANHHCE | char(4) | Census code (AIANHHCE), 2000 |
| TRUST | char(1) | Trust land indicator |
| LSADC | char(2) | Legal/Statistical area code |
| LSADC_DESC | char(101) | Legal/Statistical area description |

American Indian tribal subdivisions

American Indian tribal subdivisions are administrative subdivisions of federally recognized American Indian reservations, off-reservation trust land, or Oklahoma tribal statistical areas (OTSAs). Tribal subdivisions are known as areas, chapters, communities, or districts. These entities are internal units of self-government or administration that serve social, cultural, and/or economic purposes for the American Indians on the reservations, off-reservation trust lands, or OTSAs.

Filename prefix: AIT

Feature type: point

Source: TIGER/Line 2000 Source scale: 1:100,000

| | * | |
|------------|-----------|------------------------------------|
| ATTRIBUTE | TYPE | DESCRIPTION |
| ID | char(5) | AIT ID (FIPS 55 code) |
| NAME | char(60) | AIT name |
| AITFIPS | char(5) | FIPS 55 code (AITS) |
| AITSCE | char(3) | Census code (AITS) |
| AIANHHCE | char(4) | Census code (AIANHHCE), 2000 |
| LSADC | char(2) | Legal/Statistical area code |
| LSADC_DESC | char(101) | Legal/Statistical area description |

Alaska Native Regional Corporations

Alaska Native Regional Corporations (ANRCs) are corporate entities organized to conduct both business and nonprofit affairs for Alaska natives pursuant to the Alaska Native Claims Settlement Act of 1972 (Public Law 92-203). Twelve ANRCs are geographic entities that cover most of the state of Alaska (the

Annette Islands Reserve, an American Indian reservation, is excluded from any ANRC).

Filename prefix: ARC Feature type: point

Source: TIGER/Line 2000 Source scale: 1:100.000

| ATTRIBUTE | TYPE | DESCRIPTION |
|------------|----------|------------------------------------|
| ID | char(4) | ANRC ID (FIPS 55 code) |
| NAME | char(66) | ANRC name |
| ANRC | char(2) | FIPS 55 code (ANRC) |
| LSADC | char(2) | Legal/Statistical area code |
| LSADC_DESC | char(40) | Legal/Statistical area description |

Block groups

A block group delineates the lowest level of geography for which the Census Bureau has tabulated sample data in the 2000 census. Block groups typically contain between 350 and 550 households.

Filename prefix: BG_
Feature type: region
Source: TIGER/Line 2000

Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|-----------------------------|
| ID | char(12) | Block group ID |
| NAME | char(13) | Block group ID with decimal |

Census designated place boundaries

Census designated place (CDP) boundaries delineate statistical entities, defined for each decennial census according to Census Bureau guidelines, comprising a densely settled concentration of population that is not within an incorporated place but is locally identified by a name. CDPs are delineated by state, local officials, and the Census Bureau following Census Bureau guidelines. These entities were called unincorporated places for the 1940 through 1970 censuses.

Filename prefix: PLP Feature type: region Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|------------|----------|------------------------------------|
| ID | char(7) | Place ID |
| NAME | char(35) | Place name |
| PLACEFIPS | char(5) | FIPS 55 code (Place/CDP), 2000 |
| PLACECODE | char(4) | Census place/CDP code |
| LSADC | char(4) | Legal/Statistical area code |
| LSADC_DESC | char(20) | Legal/Statistical area description |
| POP CLASS | char(50) | Population class |

Census designated place points

CDP points define statistical entities, defined for each decennial census according to Census Bureau guidelines, comprising a densely settled concentration of population that is not within an

Working with map layers 31

incorporated place but is locally identified by a name. CDPs are delineated by state, local officials, and the Census Bureau following Census Bureau guidelines. These entities were called unincorporated places for the 1940 through 1970 censuses.

Filename prefix: PLP

Feature type: point

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|------------|----------|------------------------------------|
| ID | char(7) | Place ID |
| NAME | char(35) | Place name |
| PLACEFIPS | char(5) | FIPS 55 code (Place/CDP), 2000 |
| PLACECODE | char(4) | Census place/CDP Code |
| LSADC | char(4) | Legal/Statistical area code |
| LSADC_DESC | char(20) | Legal/Statistical area description |
| POP_CLASS | char(50) | Population class |

Census tracts

A census tract represents a small, relatively permanent statistical subdivision of a county in a metropolitan area or a selected nonmetropolitan county, delineated by a local committee of census data users (a CSAC) for the purpose of presenting decennial census data. Census tract boundaries normally follow visible features but may follow governmental unit boundaries and other nonvisible features in some instances; they always nest within counties. Designed to be relatively homogeneous units with respect to population characteristics, economic status, and

living conditions at the time the CSAC established them, census tracts usually contain between 2,500 and 8,000 inhabitants. They may be split by any subcounty geographic entity.

Filename prefix: TR_
Feature type: region
Source: TIGER/Line 2000

Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|------------------------------|
| ID | char(12) | Census tract ID |
| NAME | char(13) | Census tract ID with decimal |

Congressional districts (current)

Congressional districts (CDs) are areas established by state officials or the courts for the purpose of electing a person to the U.S. House of Representatives. Within each state, these areas must contain, as nearly as possible, an equal number of inhabitants. The number of CDs in each state may change after each decennial census, and the boundaries may be changed more than once during a decade.

Filename prefix: CDC

Feature type: region

Source: TIGER/Line 2000

Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|-----------------------------|
| ID | char(9) | Congressional district ID |
| NAME | char(20) | Congressional district name |
| DISTRICT | char(6) | C. Dist. Code, 106th |

Congressional districts (106)

Congressional districts are areas established by state officials or the courts for the purpose of electing a person to the U.S. House of Representatives. Within each state, these areas must contain, as nearly as possible, an equal number of inhabitants. The number of CDs in each state may change after each decennial census, and the boundaries may be changed more than once during a decade.

Filename prefix: CD6 Feature type: region Source: TIGER/Line 2000

Source scale: 1:100,000

ATTRIBUTE TYPE DESCRIPTION

ID char(9) Congressional district ID

NAME char(20) Congressional district name

DISTRICT char(6) C. Dist. Code, 106th

Counties

County boundaries delineate the primary legal subdivision of every state except Alaska and Louisiana.

Filename prefix: CO_ Feature type: region

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|------------|----------|------------------------------------|
| ID | char(5) | County ID |
| NAME | char(31) | County name |
| LSADC | char(2) | Legal/Statistical area code |
| LSADC_DESC | char(20) | Legal/Statistical area description |

County subdivisions

County subdivision (CSD) boundaries represent a type of governmental unit that is the primary legal subdivision of a county in 28 states created to govern or administer an area rather than a specific population. The several types of CSDs are identified by a variety of terms, such as town, township, and district, and include both functioning and nonfunctioning governmental units. Many CSDs represent local, general-purpose governmental units, which makes them required areas for presentation of decennial census data.

Filename prefix: MCD Feature type: region Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|------------|-----------|------------------------------------|
| ID | char(10) | CSD ID |
| NAME | char(60) | CSD name |
| COUSUBFP | char(5) | FIPS 55 code (CSD), 2000 |
| MCD | char(3) | MCD code |
| LSADC | char(2) | Legal/Statistical area code |
| LSADC_DESC | char(101) | Legal/Statistical area description |

Metropolitan Statistical Areas

Metropolitan Statistical Area (MSA) boundaries delineate geographic entities, based on the concept of a core area with a large population nucleus, plus adjacent communities having a high degree of economic and social integration with that core. Qualification of an MSA requires the presence of a city with 50,000 or more inhabitants or the presence of an urban area and a total population of at least 100,000 (75,000 in New England). The county or counties containing the largest city and surrounding densely settled territory are central counties of the MSA. Additional outlying counties qualify for inclusion in the MSA by meeting certain other criteria of metropolitan character, such as a specified minimum population density or percentage of the population that is urban. MSAs in New England are defined in terms of cities and towns, following rules concerning commuting and population density. MSAs were first defined and effective on June 30, 1983.

Filename prefix: MSA

Feature type: region

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|------------|-----------|------------------------------------|
| ID | char(4) | MSA ID |
| NAME | char(56) | MSA name |
| LSADC | char(2) | Legal/Statistical area code |
| LSADC_DESC | char(100) | Legal/Statistical area description |

MSA/NECMAs

MSAs delineate geographic entities, based on the concept of a core area with a large population nucleus, plus adjacent

communities having a high degree of economic and social integration with that core. Qualification of an MSA requires the presence of a city with 50,000 or more inhabitants or the presence of an urban area and a total population of at least 100,000 (75,000 in New England). The county or counties containing the largest city and surrounding densely settled territory are central counties of the MSA. Additional outlying counties qualify for inclusion in the MSA by meeting certain other criteria of metropolitan character, such as a specified minimum population density or percentage of the population that is urban. MSA/New England County Metropolitan Areas (NECMAs) in New England are defined in terms of county equivalents in which the primary county defining a New England MSA is used to represent the MSA.

Filename prefix: MSN Feature type: region

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|------------|-----------|------------------------------------|
| ID | char(4) | MSA ID |
| NAME | char(56) | MSA name |
| LSADC | char(2) | Legal/Statistical area code |
| LSADC_DESC | char(100) | Legal/Statistical area description |

School districts, elementary

Elementary school district boundaries delineate the territories administered by the elected or appointed authorities of a state, county, or other local governmental unit to provide educational services to a resident population. A school district typically includes several school buildings, teachers, and related staff.

34 USING ESRI MAPDATA

 $File name\ prefix: ELM$

Feature type: region

Source: TIGER/Line 2000 Source scale: 1:100.000

| ATTRIBUTE | TYPE | DESCRIPTION |
|------------|----------|----------------------|
| ID | char(7) | School district ID |
| NAME | char(60) | School district name |
| ELEMENTARY | char(5) | School district code |

School districts, secondary

Secondary school district boundaries delineate the territories administered by the elected or appointed authorities of a state, county, or other local governmental unit to provide educational services to a resident population. A school district typically includes several school buildings, teachers, and related staff.

Filename prefix: SEC Feature type: region

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|----------------------|
| ID | char(7) | School district ID |
| NAME | char(60) | School district name |
| SECONDARY | char(5) | School district code |

School districts, unified

Unified school district boundaries delineate the territories administered by the elected or appointed authorities of a state,

county, or other local governmental unit to provide educational services to a resident population. A school district typically includes several school buildings, teachers, and related staff.

Filename prefix: UNI
Feature type: region

Source: TIGER/Line 2000

Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|----------------------|
| ID | char(7) | School district ID |
| NAME | char(60) | School district name |
| UNIFIED | char(5) | School district code |

State legislative districts, lower

State legislative districts (SLDs) are the areas from which members are elected to state legislatures. The SLDs embody the upper (senate) and lower (house) chambers of the state legislature.

Filename prefix: SLL

Feature type: region

Source: TIGER/Line 2000 Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|---------------|----------|---------------------------------|
| ${\mathbb D}$ | char(8) | State legislative district ID |
| NAME | char(20) | State legislative district name |
| SLDL | char(6) | State legislative district code |

State legislative districts, upper

SLDs are the areas from which members are elected to state legislatures. The SLDs embody the upper (senate) and lower (house) chambers of the state legislature.

Filename prefix: SLU Feature type: region Source: TIGER/Line 2000

Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|---------------------------------|
| ID | char(8) | State legislative district ID |
| NAME | char(20) | State legislative district name |
| SLDU | char(6) | State legislative district code |

Public use microdata areas

A public use microdata area (PUMA) is a decennial census area for which the U.S. Census Bureau provides selected extracts of raw data from a small sample of long-form census records that are screened to protect confidentiality. These extracts are referred to as public use microdata sample (PUMS) files.

Filename prefix: PUM
Feature type: region
Source: TIGER/Line 2000
Source scale: 1:100.000

| ATTRIBUTE | TYPE | DESCRIPTION |
|---------------|---------|--------------------------|
| ${\mathbb D}$ | char(7) | PUMA ID |
| PUMA | char(5) | PUMA file, 5% file, 2000 |

Traffic analysis zones

Traffic analysis zone boundaries represent special-purpose geographic entities delineated by a metropolitan planning organization for tabulating transportation statistics from the decennial census

Filename prefix: TZ_
Feature type: region
Source: TIGER/Line 2000

Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|-----------|----------|----------------------------------|
| ID | char(12) | Traffic analysis zone ID |
| TAZ | char(6) | Traffic analysis zone code, 2000 |

Urban areas

Urban area (UA) boundaries contain a central place and adjacent urban fringe that together have a minimum residential population of at least 50,000 people and generally an overall population density of at least 1,000 people per square mile of land area. The Census Bureau uses published criteria to determine the qualification and boundaries of UAs.

Filename prefix: UA_ Feature type: region Source: TIGER/Line 2000

Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|------------|----------|------------------------------------|
| ID | char(5) | Census urban area code, 2000 |
| NAME | char(60) | Urban area name |
| LSADC | char(2) | Legal/Statistical area code |
| LSADC_DESC | char(20) | Legal/Statistical area description |

Voting districts

Voting district boundaries delineate a variety of areas, such as election districts, precincts, legislative districts, or wards, established by state and local governments for voting purposes. The 1990 census term voting district replaces the 1980 term election precinct.

Filename prefix: VT_ Feature type: region

Source: TIGER/Line 2000 Source scale: 1:100,000

| | * | |
|------------|----------|------------------------------------|
| ATTRIBUTE | TYPE | DESCRIPTION |
| ID | char(11) | Census voting district ID |
| NAME | char(66) | Census voting district name |
| VOTECODE | char(6) | Census voting district code, 2000 |
| PDC | char(1) | Place description code |
| LSADC | char(2) | Legal/Statistical area code |
| LSADC_DESC | char(20) | Legal/Statistical area description |

Water clipped boundaries

Water clipped boundaries represent geographic areas with water components removed. Water clipping is sometimes referred to as shorelining.

Other boundaries

Designated market areas

A designated market area (DMA) boundary delineates a designated television market as defined by the A.C. Neilson Company. DMAs represent groups of counties, except in a few cases where counties are split between market areas.

Filename prefix: DMA
Feature type: region

Source: TIGER/Line 2000; Nielson

Source scale: 1:100,000

| ATTRIBUTE | TYPE | DESCRIPTION |
|---------------|----------|-------------|
| ${\mathbb D}$ | char(3) | DMA ID |
| NAME | char(56) | DMA name |

Census Feature Class Definitions

Census Feature Class Definitions are provided as descriptions to Census Feature Class Codes, which are attributes on many MapData layers.

Feature Class A, Road

Primary highway with limited access

Interstate highways and some toll highways are in this category (A1) and are distinguished by the presence of interchanges. These highways are accessed by way of ramps and have multiple lanes of traffic. The opposing traffic lanes are divided by a median strip. The TIGER/Line files may depict these opposing traffic lanes as two distinct lines, in which case the road is called separated.

A11 Primary road with limited access or interstate highway, unseparated.

A12 Primary road with limited access or interstate highway, unseparated, in tunnel.

A13 Primary road with limited access or interstate highway, unseparated, underpassing.

A14 Primary road with limited access or interstate highway, unseparated, with rail line in center.

A15 Primary road with limited access or interstate highway, separated.

A16 Primary road with limited access or interstate highway, separated, in tunnel.

A17 Primary road with limited access or interstate highway, separated, underpassing.

A18 Primary road with limited access or interstate highway, separated, with rail line in center.

Primary road without limited access

This category (A2) includes nationally and regionally important highways that do not have limited access as required by category A1. It consists mainly of U.S. highways but may include some state highways and county highways that connect cities and larger towns. A road in this category must be a hard surface, such as concrete or asphalt. It has intersections with other roads, may be divided or undivided, and has multilane or single-lane characteristics.

A21 Primary road without limited access, U.S. highways, unseparated.

A22 Primary road without limited access, U.S. highways, unseparated, in tunnel.

A23 Primary road without limited access, U.S. highways, unseparated, underpassing.

A24 Primary road without limited access, U.S. highways, unseparated, with rail line in center.

A25 Primary road without limited access, U.S. highways, separated.

A26 Primary road without limited access, U.S. highways, separated, in tunnel.

A27 Primary road without limited access, U.S. highways, separated, underpassing.

A28 Primary road without limited access, U.S. highways, separated, with rail line in center.

Secondary and connecting road

This category (A3) includes mostly state highways but may include some county highways that connect smaller towns, subdivisions, and neighborhoods. The roads in this category are smaller than roads in category A2, must be a hard surface—

38 Using ESRI MapData

concrete or asphalt—and are usually undivided with single-lane characteristics. These roads usually have a local name along with a route number and intersect with many other roads and driveways.

A31 Secondary and connecting road, state highways, unseparated.

A32 Secondary and connecting road, state highways, unseparated, in tunnel.

A33 Secondary and connecting road, state highways, unseparated, underpassing.

A34 Secondary and connecting road, state highways, unseparated, with rail line in center.

A35 Secondary and connecting road, state highways, separated.

A36 Secondary and connecting road, state highways, separated, in tunnel.

A37 Secondary and connecting road, state and county highways, separated, underpassing.

A38 Secondary and connecting road, state and county highways, separated, with rail line in center.

Local, neighborhood, and rural road

A road in this category (A4) is used for local traffic and usually has a single lane of traffic in each direction. In an urban area, this is a neighborhood road and street that is not a thoroughfare belonging in categories A2 or A3. In a rural area, this is a short-distance road connecting the smallest towns; the road may or may not have a state or county route number. Scenic park roads, unimproved or unpaved roads, and industrial roads are included in this category. Most roads in the nation are classified as A4 roads.

A41 Local, neighborhood, and rural road, city street, unseparated.

A42 Local, neighborhood, and rural road, city street, unseparated, in tunnel.

A43 Local, neighborhood, and rural road, city street, unseparated, underpassing.

A44 Local, neighborhood, and rural road, city street, unseparated, with rail line in center.

A45 Local, neighborhood, and rural road, city street, separated.

A46 Local, neighborhood, and rural road, city street, separated, in tunnel

A47 Local, neighborhood, and rural road, city street, separated, underpassing.

A48 Local, neighborhood, and rural road, city street, separated, with rail line in center.

Vehicular trail

A road in this category (A5) is usable only by four-wheel drive vehicles, is usually a one-lane dirt trail, and is found almost exclusively in very rural areas. Sometimes the road is called a fire road or logging road and may include an abandoned railroad grade where the tracks have been removed. Minor, unpaved roads usable by ordinary cars and trucks belong in category A4, not A5.

A51 Vehicular trail, road passable only by four-wheel drive vehicle, unseparated.

A52 Vehicular trail, road passable only by four-wheel drive vehicle, unseparated, in tunnel.

A53 Vehicular trail, road passable only by four-wheel drive vehicle, unseparated, underpassing.

Road with special characteristics

This category (A6) includes roads, portions of a road, intersections of a road, or the ends of a road that are parts of the vehicular highway system and have separately identifiable characteristics

A61 Cul-de-sac, the closed end of a road that forms a loop or turnaround roundabout.

A62 Traffic circle, the portion of a road or intersection of roads forming a roundabout.

A63 Access ramp, the portion of a road that forms a cloverleaf or limited-access interchange.

A64 Service drive, the road or portion of a road that provides access to businesses, facilities, and rest areas along a limited-access highway; this frontage road may intersect other roads and be named

A65 Ferry crossing, the representation of a route over water that connects roads on opposite shores; used by ships carrying automobiles or people.

Road as other thoroughfare

A road in this category (A7) is not part of the vehicular highway system. It is used by bicyclists or pedestrians and is typically inaccessible to mainstream motor traffic except for private-owner and service vehicles. This category includes foot and hiking trails located on park and forestland, as well as stairs or walkways that follow a road right-of-way and have names similar to road names.

A71 Walkway or trail for pedestrians, usually unnamed.

A72 Stairway, stepped road for pedestrians, usually unnamed.

A73 Alley, road for service vehicles, usually unnamed, located at the rear of buildings and property.

A74 Driveway or service road, usually privately owned and unnamed, used as access to residences, trailer parks, and apartment complexes or as access to logging areas, oil rigs, ranches, farms, and park lands.

Feature Class B, Railroad

Railroad with major category unknown

Source materials do not allow determination of the major railroad category. Major category unknown should not, under most circumstances, be used since the source materials usually provide enough information to determine the major category.

B01 Railroad track, not in tunnel or underpassing; major category used alone when the minor category could not be determined.

B02 Railroad track, in tunnel.

B03 Railroad track, underpassing.

Railroad main line

A railroad in this category is the primary track that provides service between destinations. A main line track often carries the name of the owning and operating railroad company.

B11 Railroad main track, not in tunnel or underpassing.

B12 Railroad main track, in tunnel.

B13 Railroad main track, underpassing.

Railroad spur

A railroad in this category is the track that leaves the main track, ending in an industrial park, factory, or warehouse area, or forming a siding along the main track.

B21 Railroad spur track, not in tunnel or underpassing.

B22 Railroad spur track, in tunnel.

40 USING ESRI MAPDATA

B23 Railroad spur track, underpassing.

Railroad yard

A railroad yard track has parallel tracks that form a working area for the railroad company. Train cars and engines are repaired, switched, and dispatched from a yard.

- B31 Railroad yard track, not in tunnel or underpassing.
- B32 Railroad yard track, in tunnel.
- B33 Railroad yard track, underpassing.

Railroad with special characteristics

A railroad or portions of a railroad track that are parts of the railroad system and have separately identifiable characteristics.

B40 Railroad ferry crossing, the representation of a route over water used by ships carrying train cars to connecting railroads on opposite shores. These are primarily located on the Great Lakes.

Railroad as other thoroughfare

A railroad that is not part of the railroad system. This category is for a specialized rail line or railway that is typically inaccessible to mainstream railroad traffic.

B50 Other rail line; major category used alone when the minor category could not be determined.

B51 Carline, a track for street cars, trolleys, and other mass transit rail systems; used when the carline is not part of the road right-of-way.

B52 Cog railroad, incline railway, or logging tram.

Feature Class C, Miscellaneous ground transportation

Miscellaneous ground transportation with category unknown

Source materials do not allow determination of the miscellaneous ground transportation category. Category unknown should not, under most circumstances, be used since the source materials usually provide enough information to determine the major category.

C00 Miscellaneous ground transportation, not road or railroad; major and minor categories unknown.

Pipeline

Enclosed pipe, carrying fluid or slurry, situated above ground or, in special conditions, below ground when marked by a cleared right-of-way and signage.

C10 Pipeline; major category used alone.

Power transmission line

High voltage electrical line, on towers, situated on cleared right-of-way.

C20 Power transmission line; major category used alone.

Miscellaneous ground transportation with special characteristics

A portion of a ground transportation system that has separately identifiable characteristics. This category is for specialized transportation, usually confined to a local area, that is separate from other ground transportation.

C30 Other ground transportation that is not a pipeline or a power transmission line; major category used alone when minor category could not be determined.

C31 Aerial tramway, monorail, or ski lift.

Feature Class D, Landmark

Landmark is the general name given to a cartographic landmark, a land use area, and a key geographic location. A cartographic landmark is identified for use by an enumerator while working in the field. A land use area is identified to minimize enumeration efforts in uninhabited areas or areas where human access is restricted. A key geographic location is identified to more accurately geocode and enumerate a place of work or residence.

Landmark with category unknown

Source materials do not allow determination of the landmark category. Category unknown should not, under most circumstances, be used since the source materials usually provide enough information to determine the major category.

D00 Landmark; major and minor categories unknown.

Military installation

Base, yard, or depot used by any of the armed forces or the Coast Guard.

D10 Military installation or reservation; major category used alone.

Multihousehold or transient quarters

D20 Multihousehold or transient quarters; major category used alone when the minor category could not be determined.

D21 Apartment building or complex.

D22 Rooming or boarding house.

D23 Trailer court or mobile home park.

D24 Marina.

D25 Crew-of-vessel area.

D26 Housing facility for workers.

D27 Hotel, motel, resort, spa, YMCA, or YWCA.

D28 Campground.

D29 Shelter or mission.

Custodial facility

This category includes institutions that have personnel, such as guards, nurses, and caretakers, to reserve the welfare of those individuals resident in the facility.

D30 Custodial facility; major category used alone when the minor category could not be determined.

D31 Hospital.

D32 Halfway house.

D33 Nursing home, retirement home, or home for the aged.

D34 County home or poor farm.

D35 Orphanage.

D36 Jail or detention center.

D37 Federal penitentiary, state prison, or prison farm.

Educational or religious institution

D40 Educational or religious institution; major category used alone when the minor category could not be determined.

D41 Sorority or fraternity.

D42 Convent or monastery.

D43 Educational institution, including an academy, school, college, or university.

D44 Religious institution, including a church, synagogue, seminary, temple, or mosque.

Transportation terminal

A facility where transportation equipment is stored, the destination for travel on the transportation system, or the intermodal connection facility between transportation systems.

D50 Transportation terminal; major category used alone when the minor category could not be determined.

D51 Airport or airfield.

D52 Train station.

D53 Bus terminal.

D54 Marine terminal.

D55 Seaplane anchorage.

Employment center

This category includes locations with high-density employment.

D60 Employment center; major category used alone when the minor category could not be determined.

D61 Shopping center or major retail center.

D62 Industrial building or industrial park.

D63 Office building or office park.

D64 Amusement center.

D65 Government center.

D66 Other employment center.

Tower

D70 Tower; major category used alone when minor category could not be determined.

D71 Lookout tower

Open space

This category contains areas of open space with no inhabitants or with inhabitants restricted to known sites within the area.

D80 Open space; major category used alone when the minor category could not be determined.

D81 Golf course.

D82 Cemetery.

D83 National park.

D84 National forest or other federal land.

D85 State or local park or forest.

Special-purpose landmark

This category includes landmarks not otherwise classified.

D90 Special-purpose landmark; major category used alone when the minor category could not be determined.

D91 Post office box only ZIP Code location (for these ZIP Codes, the USPS provides only post office box service, not street delivery).

D92 Urbanization, an identifiable community development in Puerto Rico.

Feature Class E, Physical Feature

Physical feature with category unknown

Source materials do not allow determination of the physical feature category. Major category unknown should not, under most circumstances, be used since the source materials usually provide enough information to determine the major category.

E00 Physical feature, tangible but not transportation or hydrographic; major and minor categories unknown.

Fence

This category describes a fence that separates property. For example, a fence around a military reservation or prison separates the reservation from civilian land. Thus, a fence line is a property line marked by a fence.

E10 Fence line locating a visible and permanent fence between separately identified property.

Topographic features

This category refers to topographical features that may be used as boundaries or as a reference for an area. The Census TIGER database contains topographic features used to define the limits of statistical entities in locations where no other visible feature can be identified.

E20 Topographic feature; major category used when the minor category could not be determined.

E21 Ridge line, the line of highest elevation of a linear mountain.

E22 Mountain peak, the point of highest elevation of a mountain.

E23 Island, identified by name.

Feature Class F, Nonvisible Features

Nonvisible features are used to delimit tabulation entities, property areas, and legal and administrative entities. The Census Bureau separately identifies nonvisible boundaries only when they do not follow a visible feature, such as a road, stream, or ridgeline.

Nonvisible boundary with classification unknown or not elsewhere classified

F00 Nonvisible boundary; major and minor categories unknown.

Nonvisible legal or administrative boundary

F10 Nonvisible jurisdictional boundary of a legal or administrative entity; major category used when the minor category could not be determined.

F11 Offset boundary of a legal or administrative entity.

F12 Corridor boundary of a legal or administrative entity.

F13 Interpolated boundary of a legal or administrative entity used for closure through hydrological areas.

F14 Superseded legal or administrative boundary.

F15 Superseded legal or administrative boundary, corrected through the postcensus process.

Nonvisible features for database topology

This category contains various types of nonvisible lines used to maintain the topology in the Census TIGER database.

F20 Nonvisible feature for database topology; major category used when the minor category could not be determined.

F21 Automated feature extension to lengthen existing physical feature.

F22 Irregular feature extension, determined manually, to lengthen existing physical feature.

F23 Closure extension to complete database topological closure between extremely close features; used to close small gaps between complete chains and create polygons to improve block labeling on cartographic products.

F24 Nonvisible separation line used with offset and corridor boundaries.

F25 Nonvisible centerline of area enclosed by corridor boundary.

Point-to-point line

F30 Point-to-point line, follows a line of sight and should not cross any visible feature—for example, from the end of a road to a mountain peak.

Property line

F40 Property line, nonvisible boundary of either public or private lands—for example, a park boundary.

ZIP Code boundary

F50 ZIP Code boundary, reserved for future use in delineating ZIP Code tabulation areas.

Map edge

F60 Map edge, now removed, used during database creation.

Nonvisible statistical boundary

F70 Statistical boundary; major category used when the minor category could not be determined.

F71 1980 statistical boundary.

F72 1990 statistical boundary; used to hold collection and tabulation census block boundaries not represented by existing physical features.

F73 Internal Census Bureau use

F74 1990 statistical boundary; used to hold a tabulation census block boundary not represented by an existing physical feature.

Nonvisible other tabulation boundary

F80 Nonvisible other tabulation boundary; major category used when the minor category could not be determined.

F81 Internal Census Bureau use.

F82 Internal Census Bureau use.

Feature Class H, Hydrography

Basic hydrography

This category includes shorelines of all water regardless of the classification of the water itself.

H00 Water feature, classification unknown or not elsewhere classified

H01 Shoreline of perennial water feature.

H02 Shoreline of intermittent water feature.

Naturally flowing water features

H10 Stream; major category used when the minor category could not be determined

H11 Perennial stream or river.

H12 Intermittent stream, river, or wash.

H13 Braided stream or river.

Man-made channel to transport water

These features are used for purposes such as transportation, irrigation, or navigation.

H20 Canal, ditch, or aqueduct; major category used when the minor category could not be determined.

H21 Perennial canal, ditch, or aqueduct.

H22 Intermittent canal, ditch, or aqueduct.

Inland body of water

H30 Lake or pond; major category used when the minor category could not be determined.

H31 Perennial lake or pond.

H32 Intermittent lake or pond.

Man-made body of water

H40 Reservoir; major category used when the minor category could not be determined

H41 Perennial reservoir.

H42 Intermittent reservoir.

Seaward body of water

H50 Bay, estuary, gulf, sound, sea, or ocean; major category used when the minor category could not be determined.

H51 Bay, estuary, gulf, or sound.

H53 Sea or ocean.

Body of water in a man-made excavation

H60 Gravel pit or quarry filled with water.

Nonvisible definition between water bodies

The Census Bureau digitizes nonvisible definition boundaries to separate named water areas; for instance, an artificial boundary is drawn to separate a named river from the connecting bay.

H70 Nonvisible water area definition boundary; used to separate named water areas and used as the major category when the minor category cannot be determined.

H71 USGS closure line; used as a maritime shoreline.

H72 Census water center line; computed to use as a median positional boundary.

H73 Census water boundary, international in waterways or at 12-mile limit; used as an area measurement line.

H74 Census water boundary separating inland from coastal or Great Lakes; used as an area measurement line.

H75 Census water boundary separating coastal from territorial at three-mile limit; used as an area measurement line.

Special water feature

This category includes area covered by glaciers or snowfields.

H80 Special water feature; major category used when the minor category could not be determined.

H81 Glacier.

Index

| A | Census designated place points 31 |
|---|--|
| | Census Feature Class Codes (CFCC) 15 |
| Airports 22 | Census Feature Classes 22 |
| Alaska Native Regional Corporations (ANRC) 30 | Census features 30 |
| American Indian reservations 30 | Alaska Native Regional Corporations 30 |
| American Indian tribal subdivisions 30 | American Indian reservations 30 |
| Amtrak stations 23 | American Indian tribal subdivisions 30 |
| ANRC (Alaska Native Regional Corporations) 30 | block groups 31 |
| Append functionality 9 | census designated place boundaries 31 |
| Appending maps 13 | census designated place points 31 |
| | census tracts 32 |
| В | congressional districts 32 |
| | counties 33 |
| Block groups 31 | county subdivisions 33 |
| Boundaries | metropolitan statistical areas 34 |
| designated market areas 37 | public use microdata areas 36 |
| statistical 45 | school districts |
| tabulation 45 | elementary 34 |
| traffic analysis zones 36 | secondary 35 |
| urban areas 36 | unified 35 |
| voting districts 37 | state legislative districts |
| water clipped 37 | lower 35 |
| ZIP Code 18, 45 | upper 36 |
| Boundary attributes 1 | traffic analysis zones 36 |
| | urban areas 36 |
| C | voting districts 37 |
| • | water clipped boundaries 37 |
| Cartographic labeling 20 | Census landmark features 25 |
| Cartographic output 3 | key geographic locations 25 |
| CDP (census designated place) 31 | landmark points 25 |
| Census boundaries 17 | landmark polygons 25 |
| Census Class Feature Definitions 38 | Census tracts 32 |
| Feature Class A, Road 38 | CFCC (Census Feature Class Codes) 15, 22 |
| Feature Class B, Railroad 40 | Clipped water boundaries 4 |
| Feature Class C, Miscellaneous 41 | Congressional districts 32 |
| Feature Class D, Landmark 42 | County boundaries 33 |
| Feature Class E, Physical Feature 44 | County subdivisions (CSD) 33 |
| Feature Class F, Nonvisible Features 44 | CSD (county subdivisions) 33 |
| Feature Class H, Hydrography 45 | Cultural landmarks 25 |
| Census designated place (CDP) 31 | |
| Census designated place boundaries 31 | |

| D | L | Landmark class definitions (continued) |
|-----------------------------------|----------------------------|---|
| Datum 17 | Landmark class definitions | natural (continued) |
| Demographic variables 17 | cultural 26 | isthmus defined 27 |
| Demographics 17 Demographics 17 | airport defined 26 | lake defined 27 |
| Designated market area (DMA) 37 | building defined 26 | lava defined 27 |
| DMA (designated market area) 37 | cemetery defined 26 | levee defined 27 |
| DVD-ROM 9 | church defined 26 | pillar defined 28 |
| DVD-ROW 9 | civil defined 26 | plain defined 28 |
| | | range defined 28 |
| E | hospital defined 26 | rapids defined 28 |
| | locale defined 26 | ridge defined 28 |
| ESRIBIS 18 | military defined 26 | sea defined 28 |
| ESRI BIS data 1, 4 | park defined 26 | slope defined 28 |
| ESRI BIS demographic variables 17 | PO defined 26 | spring defined 28 |
| ESRI MapLoader 1, 2, 7, 8 | ppl defined 26 | stream defined 28 |
| Extracting maps 11 | reserve defined 26 | summit defined 28 |
| Extracting to disk 11 | school defined 26 | swamp defined 28 |
| | natural 26 | valley defined 28 |
| G | arch defined 26 | woods defined 28 |
| a | area defined 26 | physical 28 |
| Geodemographic project display 4 | arroyo defined 26 | bridge defined 28 |
| Geographic region 9 | bar defined 26 | canal defined 28 |
| | basin defined 27 | crossing defined 28 |
| u | bay defined 27 | dam defined 28 |
| Н | beach defined 27 | mine defined 29 |
| Hydrology 24 | bench defined 27 | oilfield defined 29 |
| Trydrology 24 | bend defined 27 | reservoir defined 29 |
| _ | cape defined 27 | tower defined 29 |
| | cave defined 27 | trail defined 29 |
| T | channel defined 27 | tunnel defined 29 |
| Input drive 9 | cliff defined 27 | well defined 29 |
| Installing MapLoader 8 | crater defined 27 | Landmark features 29 |
| Interstate 12 | falls defined 27 | pollution points 29 |
| Interstate Highway labels 19 | flat defined 27 | schools 29 |
| | forest defined 27 | Landmark polygons 25 |
| K | gap defined 27 | Landmarks |
| | geyser defined 27 | custodial facility 42 |
| Key geographic locations (KGL) 25 | glacier defined 27 | educational or religious institution 42 |
| KGL (key geographic locations) 25 | gut defined 27 | employment center 43 |
| | harbor defined 27 | military installation 42 |
| | island defined 27 | multihousehold or transient quarters 42 |
| | | 1 |

48 Using ESRI MapData

| Landmarks (continued) open space 43 | Population 17 Power transmission line 41 | Roads (continued) route number 39 |
|---|--|-----------------------------------|
| special purpose 43 | Projection 17 | secondary and connecting 38 |
| tower 43 | Public use microdata area (PUMA) 36 | service 40 |
| transportation terminal 43 | PUMA (public use microdata area) 36 | service drive 40 |
| Locational analysis 4 | • | special characteristics 40 |
| • | R | stairway 40 |
| М | n | state highways 39 |
| IVI | Railroads | thoroughfare 40 |
| Major roads 21 | as other thoroughfare 41 | traffic circle 40 |
| Major water boundaries 25 | main track 40 | unimproved 39 |
| Map layer properties 17 | major category unknown 40 | unpaved 39 |
| attribute information 17 | special characteristics 41 | vehicular trail 39 |
| feature type 17 | spur 40 | walkway 40 |
| filename prefix 17 | yard track 41 | Runways 23 |
| source 17 | Railways 23 | |
| source scale 17 | Road features 19 | S |
| thematic map layer 17 | Highways 21 | 3 |
| MapData 3, 7, 8, 9, 11 | Interstate Highway labels 19 | School districts |
| project 11 | Interstate Highways 19 | elementary 34 |
| ZIPs 18 | Major Roads 21 | secondary 35 |
| MapLoader 1, 2, 7, 8, 9, 12, 13 | Roads 22 | unified 35 |
| Metropolitan Statistical Area (MSA) 13, 34 | routes 20 | Select MSAs to Load function 13 |
| Miscellaneous ground transportation | State Highway labels 20 | Selecting map layers 11 |
| category unknown 41 | State Highways 20 | Setup.exe file 8 |
| with special characteristics 41 | Toll Highways 20 | Shield labeling 3 |
| MSA (Metropolitan Statistical Area) 13, 34 | US Highway labels 19 | State Highway labels 20 |
| | US Highways 19 | State legislative districts |
| N | Roads | lower 35 |
| | access ramp 40 | upper 36 |
| National Center for Education Statistics 29 | alley 40 | Street network 4 |
| Natural landmarks 26 | county highways 39 | Study area 9 |
| Naturally flowing water features | cul-de-sac 40 | |
| wash 45 | driveway 40 | Т |
| | ferry crossing 40 | • |
| P | fire 39 | TIGER/Line 1, 29 |
| • | highway 40 | TIGER/Line files 38 |
| Physical features | limited-access highway 40 | Toll Highways 20 |
| fence 44 | local, neighborhood, and rural 39 | Topology 44 |
| Physical landmarks 28 | logging 39 | |
| Pipeline 41 | railroad 39 | |

INDEX 49

| Transportation features 22 | Water body (continued) |
|---|--------------------------------------|
| airports 22 | seaward (continued) |
| Amtrak stations 23 | gulf 46 |
| miscellaneous 23 | ocean 46 |
| railways 23 | sea 46 |
| runways 23 | special water feature 46 |
| | glaciers 46 |
| U | snowfields 46 |
| 0 | water transportation 46 |
| U.S. Department of Transportation | aqueduct 46 |
| (USDOT) 20, 23 | canal 46 |
| U.S. Postal Service (USPS) 18 | ditch 46 |
| Urban Areas 37 | Water features 24 |
| US Highways 19 | hydrology 24 |
| USDOT (U.S. Department of Transportation) | major water boundaries 24 |
| 20, 23 | water boundaries 24 |
| USGS landmark features 25 | |
| cultural landmarks 25 | Z |
| natural landmarks 26 | _ |
| physical landmarks 28 | ZCTAs (ZIP Code Tabulation Areas) 18 |
| USPS (U.S. Postal Service) 18 | ZIP Code data 4 |
| | ZIP Code Tabulation Areas (ZCTAs) 18 |
| W | ZIP+4 18 |
| ** | |
| Water body | |
| hydrography | |
| shorelines 45 | |
| inland 46 | |
| lake 46 | |
| pond 46 | |
| man-made 46 | |
| reservoir 46 | |
| man-made excavation 46 | |
| gravel pit 46 | |
| quarry 46 | |
| naturally flowing 45 | |
| river 45 | |
| stream 45 | |
| seaward 46 | |
| bay 46 | |
| estuary 46 | |

50 Using ESRI MapData