Autodesk MapGuide® Release 6

autodesk®

Provider for SHP Guide

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Getting Started

1

This chapter describes the features, architecture, and installation of Autodesk MapGuide® Provider for SHP. Provider for SHP is a Microsoft® OLE DB data provider that serves spatial and attribute data from an Environmental Systems Research Institute (ESRI®) SHP (shape file) data source to Autodesk MapGuide users.

In this chapter

- About this document
- Overview of Provider for SHP
- System requirements
- Installation
- Checking the installation
- Removing the installation
- Updating, repairing, or removing the installation

About This Document

This document is written for system administrators who install Autodesk MapGuide Provider for SHP, and manage its operations and for developers of Web sites that provide access to Autodesk MapGuide maps. The document provides details about the following topics:

- The features and software requirements of Provider for SHP
- Installing and configuring the Provider for SHP configuration files.
- How to get started using Provider for SHP
- The mapping of SHP geometry to Autodesk MapGuide geometry, which accounts for the minor differences in appearance of maps in the SHP and MWF file formats
- Finding a coordinate system used in Autodesk MapGuide Author that is equivalent to the ESRI coordinate system used in a SHP file

Documentation Conventions and Assumptions

In this document, a coordinate system used in Autodesk MapGuide Author is called an MWF coordinate system, and the terms coordinate system and spatial reference system (SRS) are synonymous.

This document assumes that you know how to create maps using Autodesk MapGuide Author, understand how to assign MWF coordinate systems to maps, and have read the *Autodesk MapGuide User's Guide* and *Autodesk MapGuide Help*.

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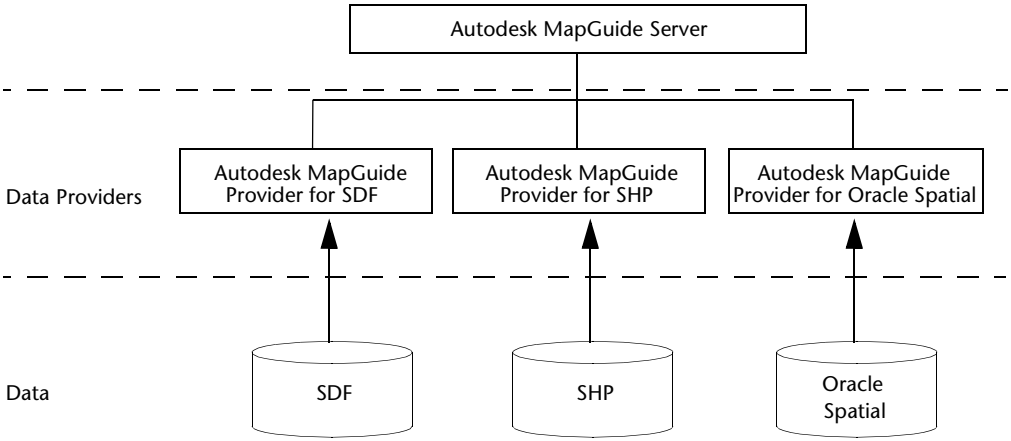
1. Click the Text Select tool on the Acrobat Reader toolbar.
2. Drag to select the text you want to copy.
3. Right-click and choose Copy from the shortcut menu.

   The text is copied to the Clipboard.

Overview of Provider for SHP

Provider for SHP adds the capability to Autodesk MapGuide® Server to serve data from ArcView® and ArcInfo® products, which are in SHP format. You do not have to convert SHP files to the SDF (spatial data file) format before using SHP files with Autodesk MapGuide® Author. The data served by Autodesk MapGuide Server with Provider for SHP follows the OpenGIS Simple Features specification for a COM/OLE component. Autodesk MapGuide Server is able to access data from SHP, SDF, Oracle8*i*™ Spatial and Oracle9*i*™ Spatial, and other OLE DB data provider components known as Spatial Data Providers (SDP), as shown in the following diagram.



Provider for SHP is a member of the family of OLE DB providers to Autodesk MapGuide Server.

Through Provider for SHP, Autodesk MapGuide Server can access *native* SHP data sources. You do not have to convert the SHP files to the Autodesk MapGuide Spatial Data Format (SDF) or to any other format before using them in Autodesk MapGuide Author.

A SHP file, as referred to in this document, actually consists of three separate files: SHP (shape geometry), SHX (shape index), and DBF (shape attributes in dBASE format). Provider for SHP accesses the information in each of these files and treats each SHP and associated DBF file as a feature table with a single geometry column and optionally, with attribute columns.

Features

Using the standardized data access architecture of Provider for SHP, map authors can perform the following tasks:

- Access SHP files with no translation of source data
- Establish Zoom Goto categories that use SHP spatial data sources
- Create theme categories from SHP spatial data sources

Advantages over SDF Loader

Provider for SHP eliminates the need to convert SHP data from ArcView and ArcInfo products to SDF (spatial data file) before using it with Autodesk MapGuide.

Using Provider for SHP instead of SDF Loader cuts the number of files you have to manage in half. You manage one set of SHP files instead of managing both SHP and corresponding SDF files.

Geometries rendered by Provider for SHP look the same as geometries from a corresponding SDF file.

System Requirements

This section describes the hardware, software, and operating system requirements of Provider for SHP.

Required Hardware

- 128 MB of RAM (minimum)
- 25 MB free hard disk space (minimum) plus space for data

Supported Platforms

You can install Autodesk MapGuide Server and Provider for SHP and on Windows® 2000 Server SP1 or SP2 (SP2 recommended or on Windows NT 4.0 SP4-6a (SP6a recommended).

Required Software

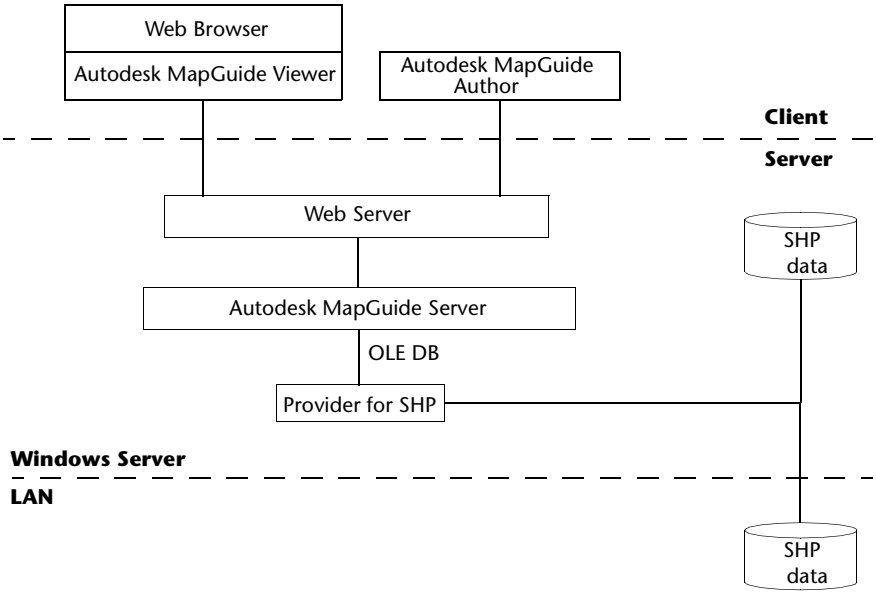
The following software, not included with Provider for SHP, must be installed on the server before installing Provider for SHP:

- **MDAC/OLE DB 2.5 SP1 or later (Windows NT only)**—Microsoft® Data Access Components (MDAC) establish a connection to the OLE DB data source, which is the SHP repository. MDAC 2.5 SP1 is a component of the Windows 2000 operating system, and it is available as a stand-alone distribution program for Windows NT 4.0 that you can download from the Web. MDAC is also included on the Autodesk MapGuide Release 6 CD.

  Note MDAC 2.6 RTM no longer includes Microsoft Jet 4.0 support. If you install MDAC 2.6 RTM or later, you might need to install Microsoft Jet 4.0 SP5 if you require this functionality for use with Provider for SHP.

- **Autodesk MapGuide Server Release 6 or later**—Install and authorize Autodesk MapGuide Server before installing Provider for SHP. Provider for SHP does not function with versions earlier than Autodesk MapGuide Server Release 6.
- **Web Server**—Ensure that Microsoft® Internet Information Server (IIS) 4.0 or later, or Netscape® Enterprise Server 3.6 or later, or iPlanet Web Server Enterprise Edition 4.1 is installed and properly configured.

The following system architecture diagram shows the major components required for use with Provider for SHP.



Provider for SHP serves local or remote SHP data through a Web server to authors and viewers.

Installation

You need one or more locations of SHP files before you begin the installation. Provider for SHP searches for the SHP files in the locations you specify.

Note To install Provider for SHP, you must be logged on as Administrator or as a user who is a member of the Administrators group.

If you do not have administrative rights to the computer, you cannot complete the installation.

To install Provider for SHP

1 Ensure that Autodesk MapGuide Server is installed, authorized, and functioning properly. For more information about installing Autodesk MapGuide Server, refer to the *Autodesk MapGuide User's Guide*.

   Do *not* use an evaluation or Beta version of Autodesk MapGuide Server. You cannot install Provider for SHP unless you are running an authorized version of Autodesk MapGuide Server.

2 Inform users to discontinue use of the Autodesk MapGuide Server Service until you complete the installation.

The setup program stops Autodesk MapGuide Server Service during installation, and restarts it after completing installation.

3 Insert the Autodesk MapGuide Release 6 CD into the CD-ROM drive. An installation dialog box showing the following options is displayed:

- Server Products
- Author Products
- Viewer Products
- Third-Party Products

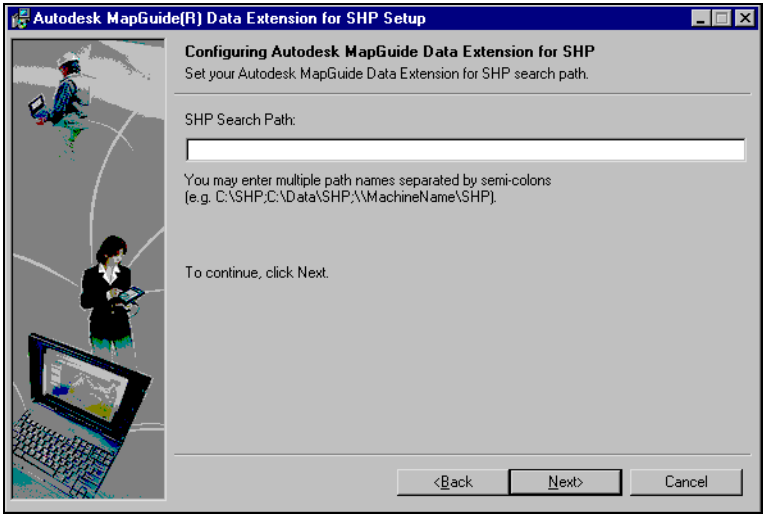
Note If the installation dialog box is not displayed, double-click the *setup.exe* file on the Autodesk MapGuide Release 6 CD.

4 Click Autodesk MapGuide Server Products.

The Server Products installation options are displayed.

5 Click Provider for SHP.

6 Follow on-screen instructions to install Provider for SHP until you see the following dialog box for entering the SHP search path.



The SHP search path is one or more path names of the directories where SHP files reside.

7 Enter the path or paths to the SHP files that you want users to access. You will be able to change or add paths to the SHP search path after installation, if necessary.

Follow these rules for specifying the SHP search path:

- Use only full, local, or Universal Naming Convention (UNC) paths. Relative paths are not supported.
- Do not use HTTP links in the path.
- Separate multiple paths with semicolons.
- Do not put spaces before or after semicolons.
- If a path contains one or more semicolons, enclose the entire path in quotation marks. For example,

  D:\SHP;"D:\SHP\Belgium;Antwerp";E:\SHP

- If your SHP files reside on different servers, extend the SHP search path to search multiple physical locations by appending the paths of these locations to the SHP search path. For example,

  \\MyServer\Maps;C:\Autodesk MapGuide\shp files;d:\temp;

To access SHP files on other machines on your network, Autodesk MapGuide Service must be running under a user account. For information about running Autodesk MapGuide Service under a user account, refer to "Configuring Autodesk MapGuide Server under a Different Account" in the *Autodesk MapGuide User's Guide*.

8 Continue following on-screen instructions until you finish the installation.

Checking the Installation

You can check that Provider for SHP was installed using the procedure in this section.

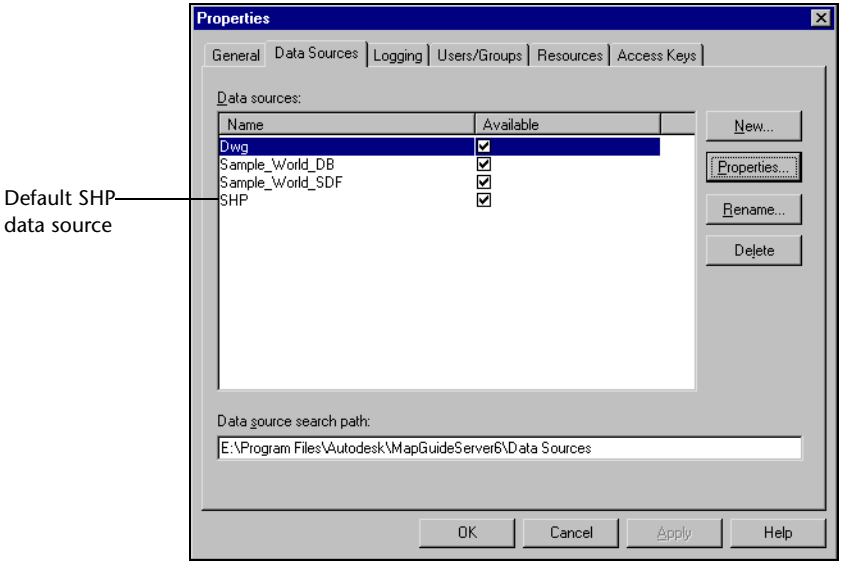
To check the installation

1 Start Autodesk MapGuide Server Service if it is not running.

2 In Autodesk MapGuide Server Admin, choose Edit ➤ Properties.

3 Click the Data Sources tab.

The list of data sources and the data source search path is displayed.



4 Check for the presence of the default SHP data source, SHP.

If you see it in the list of data sources, the installation succeeded.

Note If you do not have SHP files in the locations specified by the SHP search path, Provider for SHP cannot create the data source.

5 Click OK in the Properties dialog box.

Removing the Installation

Use the Add/Remove button on the Add/Remove Programs control panel to remove Provider for SHP. You can also use the Autodesk MapGuide Release 6 CD to remove the installation. Removing the installation includes removing registry entries and shortcuts.

Note To remove the Provider for SHP installation, you must be logged on as Administrator or as a user who is a member of the Administrators group.

To remove the installation

1. Inform Autodesk MapGuide users to discontinue use of the Autodesk MapGuide Server Service until you complete the changes.
2. Double-click Add/Remove Programs in the Control Panel.

   The launch screen is displayed.
3. Follow on-screen instructions to remove Provider for SHP.

Updating or Repairing the Installation

When you update or repair the installation, the install program reinstalls all of Provider for SHP files according to their configuration during the initial install. If an older or missing file is detected on the system, the install program reinstalls the files and overwrites shortcuts.

To update or repair Provider for SHP, you need to use the Autodesk MapGuide Release 6 CD. Do not use the Add/Remove Programs control panel. Follow these steps to upgrade or repair the installation:

Note To update or repair the installation, you must be logged on as Administrator or as a user who is a member of the Administrators group.

To update or repair the installation

1 Inform Autodesk MapGuide users to discontinue use of the Autodesk MapGuide Server Service until you complete the changes.

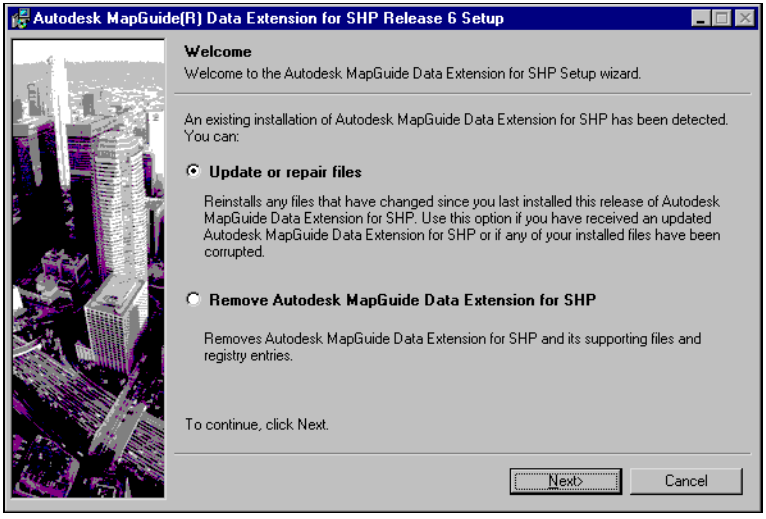
2 Insert the Autodesk MapGuide Release 6 CD into the CD-ROM drive. An installation dialog box should be displayed. If it is not, double-click the *setup.exe* file on the Autodesk MapGuide Release 6 CD.

3 Click Autodesk MapGuide Server Products.

The Server Products installation options are displayed.

4 Click Provider for SHP.

The Welcome screen for Provider for SHP is displayed.



4 Follow on-screen instructions to update or repair Provider for SHP.

Configuring Provider for SHP

2

This chapter describes the default SHP data source that Autodesk MapGuide® Server creates at installation time when you set the search path to SHP files. After installation, you create additional data sources to establish more OLE DB connections from Autodesk MapGuide Server to Provider for SHP.

In this chapter

- Configuration tasks
- Changing the SHP search path
- Matching the SHP and MWF coordinate systems
- Specifying the coordinate system
- Creating data sources

Configuration Tasks

This section briefly describes the configuration tasks that you perform.

- **Changing the SHP search path (optional)**—When you install Provider for SHP, an OLE DB data source link is created. The default name of the data source is SHP. This task involves changing the default data source search path and creating additional data sources.
- **Matching the SHP and MWF coordinate systems**—You must find the MWF coordinate system that corresponds to the coordinate system in which the SHP maps were authored, then you can specify that coordinate system when you perform the next task. If no MWF coordinate system matches the coordinate system of the SHP map, you must create a SHP file that uses a matching coordinate system. You can do this by reprojecting the coordinates in the SHP map using the ArcView® GIS Projection Utility. The ArcView GIS Projection Utility is included with ArcView GIS 3.2 and is available on Microsoft® Windows® platforms. For more information about the ArcView GIS Projection Utility, go to the following Web site:

  http:\\www.esri.com

  For more information about coordinate systems, choose Help ➤ Contents in Autodesk MapGuide Author, click the Index tab, and look up "coordinate systems, about."
- **Specifying the coordinate system of the SHP data source**—You perform this task before using the default data source. The data source contains only the location of the SHP files, and no coordinate system information. You need to specify the coordinate system in which a SHP map was saved when it was authored before using the default SHP data source.
- **Creating additional links to SHP data sources**—Performing this task sets up data sources for SHP files in addition to the default data source. By setting up multiple data sources, you can use SHP maps, which are authored in different coordinate systems, in the same MWF.

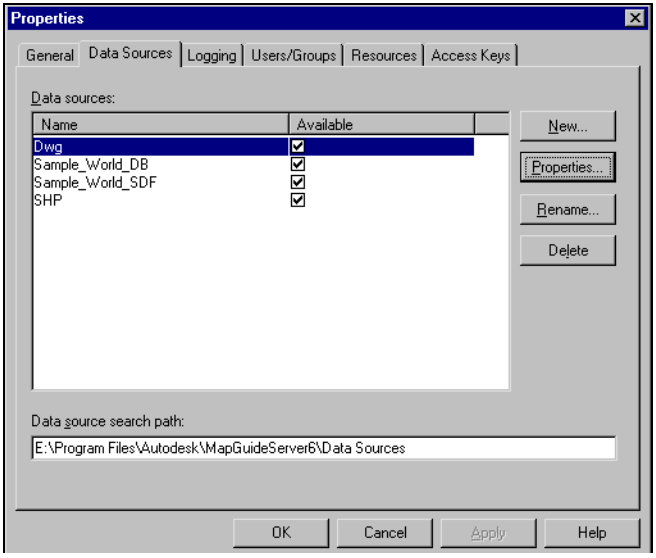
Changing the SHP Search Path

The SHP search path is one or more paths where the SHP files reside. During installation, you specified the SHP search path. To change or to add directories to the SHP search path after installation, follow these steps.

To change the SHP search path

1 In Autodesk MapGuide Server Admin, choose Edit ➤ Properties and click the Data Sources tab in the Properties dialog box.

The Data Sources tab displays the data sources and their availability.



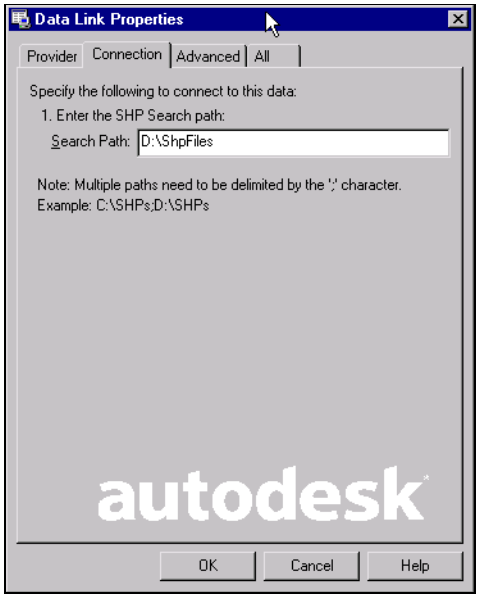
2 Select the SHP data source in the list of data sources.

3 Click Properties.

The Data Link Properties dialog box is displayed.

4 Click the Connection tab.

The Connection tab of the Data Link Properties dialog box displays the Search Path text box.



5 Enter the SHP search path according to the rules for specifying the path on page 14.

6 Click OK to close the Data Link Properties dialog box.

Matching the SHP and MWF Coordinate Systems

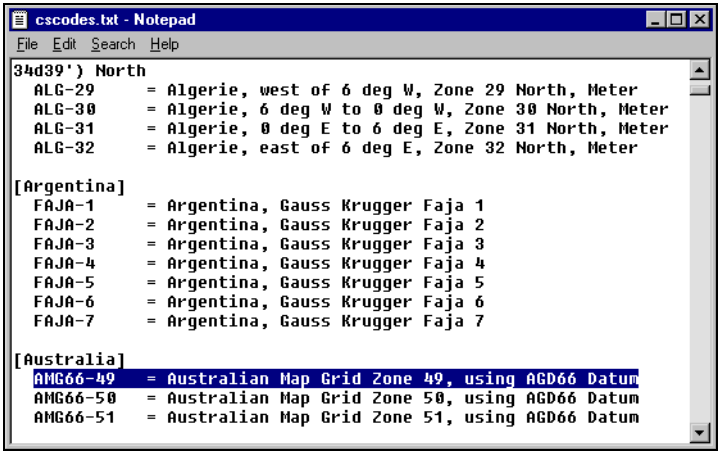
You must find the MWF coordinate system that corresponds to the coordinate system of the SHP files before using the default SHP data source and also when you create additional data sources. If you don't know the coordinate system in which the SHP map was created, open the associated PRJ file using a text editor, and look for the coordinate system information. If you don't have a PRJ file, use an ESRI product to open the SHP map and identify the coordinate system. Find the name of the MWF coordinate system that corresponds to the SHP coordinate system. If there is no corresponding coordinate system, see "Coordinate System Mismatch" on page 62.

There are several ways to find the name of the MWF coordinate system that corresponds to a SHP coordinate system:

- See Appendix A, “Matching SHP and MWF Coordinate Systems” on page 69, to find the name of the MWF coordinate system that corresponds to a SHP coordinate system. You can use Appendix A to find coordinate system codes in the following categories only:
  - Australia
  - Indonesia
  - New Zealand
  - State Plane NAD 1927
  - State Plane NAD 1983
  - State Plane NAD 1983 (Feet)
  - UTM WGS 1984
  - World
- Refer to the coordinate description file that is installed with SDF Loader. The default path and name of the file is:

  Program Files\Autodesk\MapGuideSDFLoader6\cscodes.txt

  Look for a name in this file that resembles the name of the SHP coordinate system. For example, the SHP coordinate system AGD 1966 AMG Zone 49 corresponds to the first MWF coordinate system under [Australia], AMG66-49 = Australian Map Grid Zone 49, using AGD66 Datum, as shown in the following illustration of the *cscodes.txt* file.



- Use Autodesk MapGuide Author to find the name of the MWF coordinate system that corresponds to a SHP coordinate system.

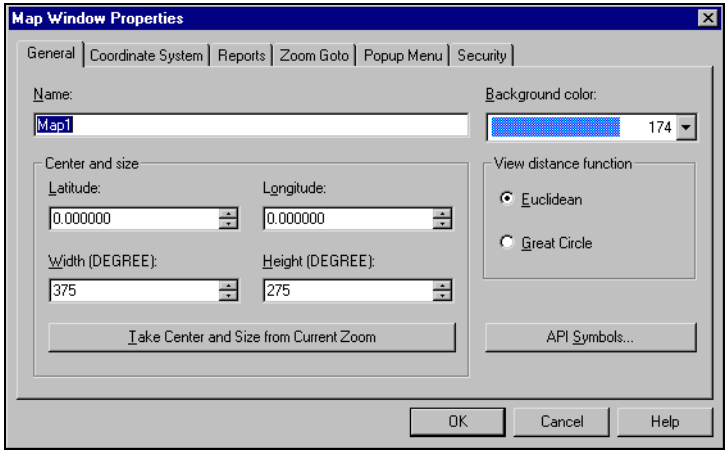
To find an MWF coordinate system that matches a SHP coordinate system

1 In Autodesk MapGuide Author, choose File ➤ New.

The default World Countries sample map is displayed.

2 Right-click in the map to display the Map Window popup menu and choose Properties.

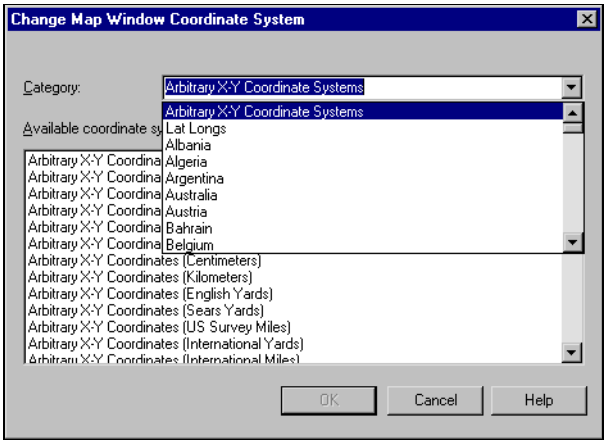
The Map Window Properties dialog box is displayed.



3 On the Coordinate System tab, click Change.

4 Select a category from the Category list that resembles the name of the SHP coordinate system.

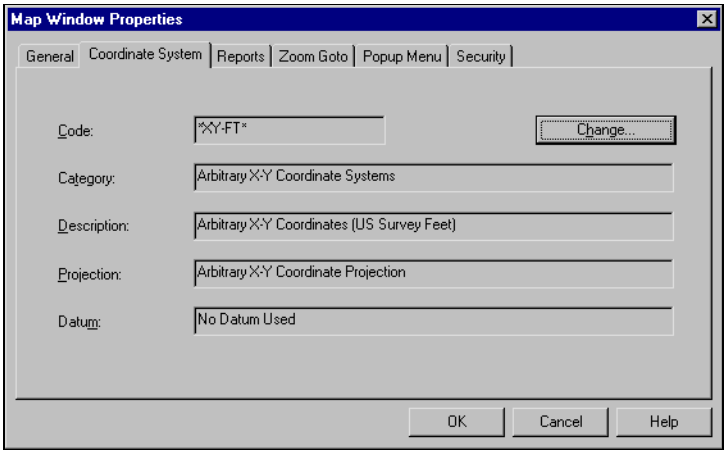
The Change Map Window Coordinate System dialog box is displayed showing the list of categories.



5 Click a coordinate system in the Available Coordinate Systems list that resembles the name of the SHP coordinate system.

6 Click OK.

The Map Window Properties dialog box is displayed showing the coordinate system value in the Code text box. Use this code to specify the MWF coordinate system when you configure the default data source for SHP or create additional data sources.



7 Click Cancel.

If you don’t find the name of an MWF coordinate system that corresponds to the coordinate system of your SHP file, use the ArcView GIS Projection Utility to change the coordinate system of your SHP file to one for which there is a match.

Specifying the Coordinate System

The default data source that you create when you install Provider for SHP includes the location of the SHP files that you entered during installation, but no coordinate system information. The SHP map might contain data for the same area in space as the other data in the Autodesk MapGuide Author project, but the SHP data might be represented in a different coordinate system.

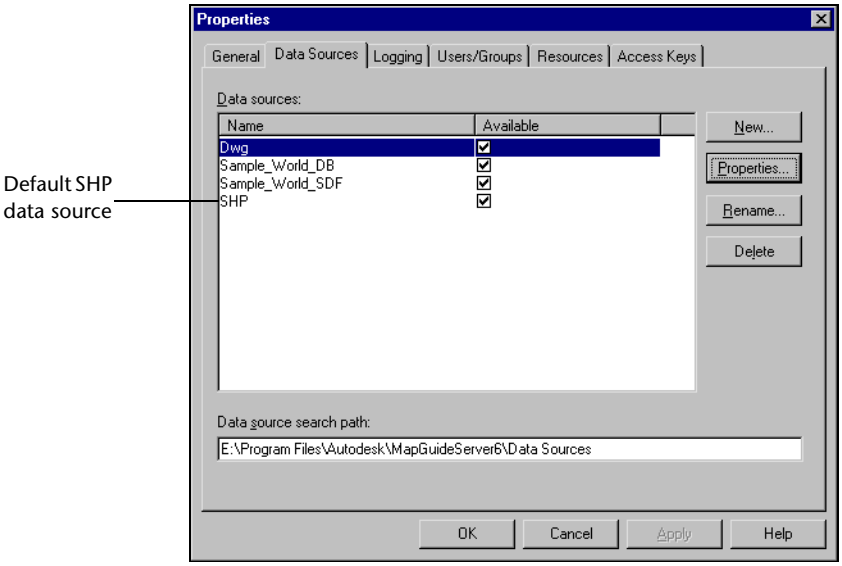
Autodesk MapGuide Server needs to know the coordinate system in which the SHP file was saved to ensure that the coordinate system of the MWF matches, so that entities appear in the right place when the SHP file is opened in Autodesk MapGuide Author. If you don't specify the coordinate system in which your SHP files were saved, the default Autodesk MapGuide Author coordinate system, the LL84 coordinate system, is used.

To specify coordinate system information

1. Open Autodesk MapGuide Server Admin.
2. Choose Edit ➤ Properties.

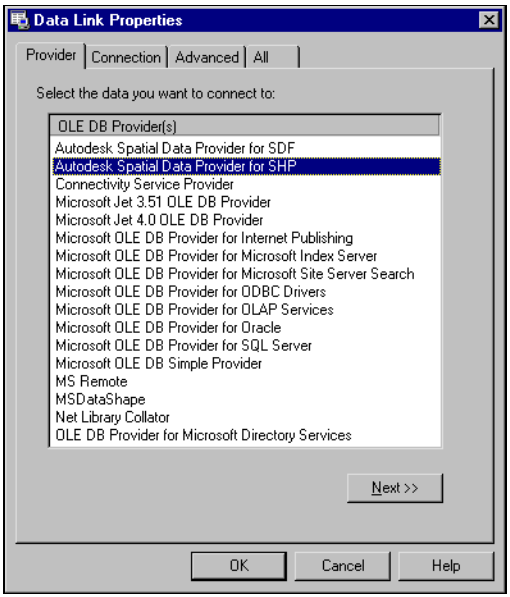
   The Properties dialog box is displayed.
3. Click the Data Sources tab, and select the default SHP data source.

The Data Sources tab displays the data sources and their availability.



4 Click Properties.

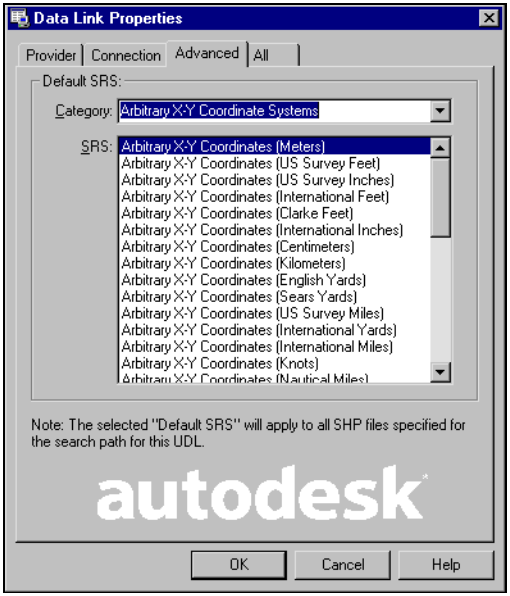
The Data Link Properties dialog box is displayed.



5 Click the Advanced tab, and then, using one of the following ways, specify the coordinate system in which the SHP files are stored:

- Select a Category for the coordinate system to be used for this data source.
- From the SRS list, select the MWF coordinate system that corresponds to the SHP coordinate system.

The Category and SRS lists are displayed.



6 Click OK to close the Data Link Properties dialog box.

Provider for SHP adds the coordinate system information to the data source.

Creating Data Sources

If you create your first MWF using the default SHP data source, and you want to create another MWF using SHP data in a different coordinate system or location from the one specified by the default SHP data source, you must create a new SHP data source.

You can perform the configuration tasks to modify or create data sources, which are Microsoft® Universal Data Link (UDL) files, using Autodesk MapGuide® Server Admin, or you can use a text editor. Using Autodesk

MapGuide Server Admin provides a graphical user interface for configuring the data sources, so it is easier to use than a text editor. Using a text editor is recommended for developers who want to configure data sources programmatically, for example, to configure a large number of UDLs in batch mode.

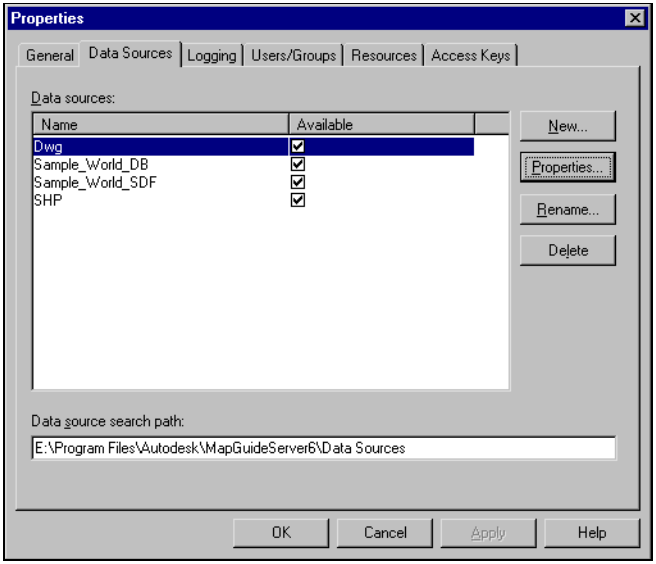
Using Autodesk MapGuide Server Admin to Create Data Sources

This section describes how to create a data source using Autodesk MapGuide Server Admin.

To create a data source using Autodesk MapGuide Server Admin

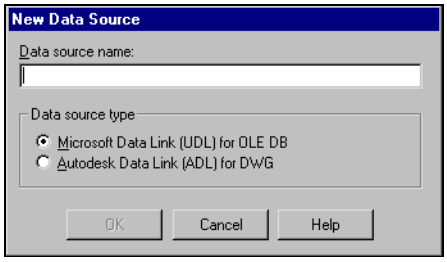
1 In Autodesk MapGuide Server Admin, choose Edit ➤ Properties, and click the Data Sources tab in the Properties dialog box.

The data sources are displayed.



2 Click New.

The New Data Source dialog box is displayed.

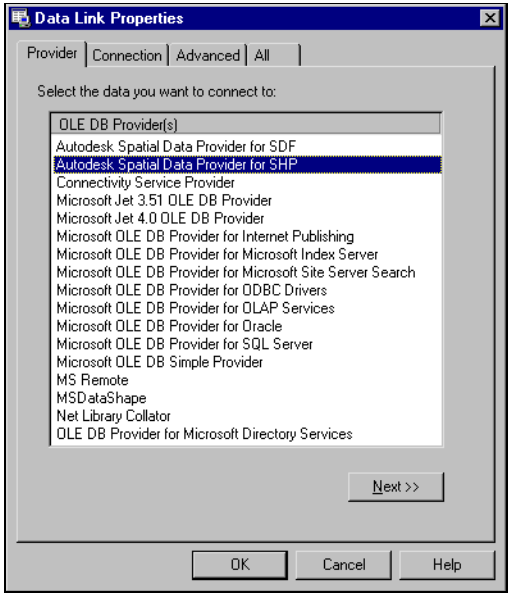


3 Enter the name of the Microsoft Data Link (UDL) for OLE DB data source, for example, enter SHP2, and click OK.

Autodesk MapGuide Server Admin displays the Data Link Properties dialog box.

4 Click the Provider tab, and select the Autodesk Spatial Data Provider for SHP from the list of data providers.

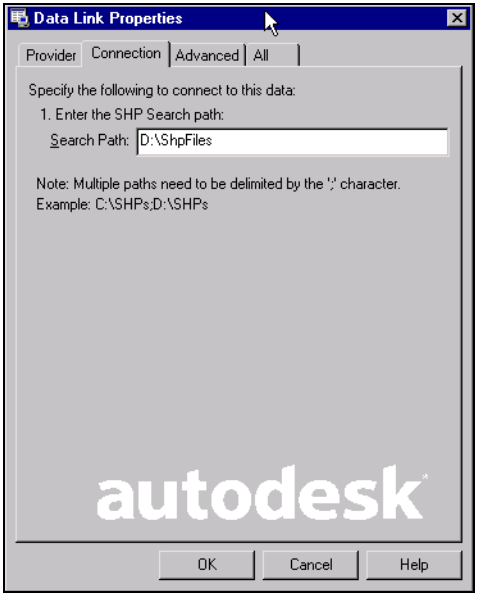
The Data Link Properties dialog box is displayed showing the list of data providers.



5 Click Next, and then click the Connection tab.

6 Enter the SHP search path (for information about entering the search path, see the rules for specifying the SHP search path on page 14).

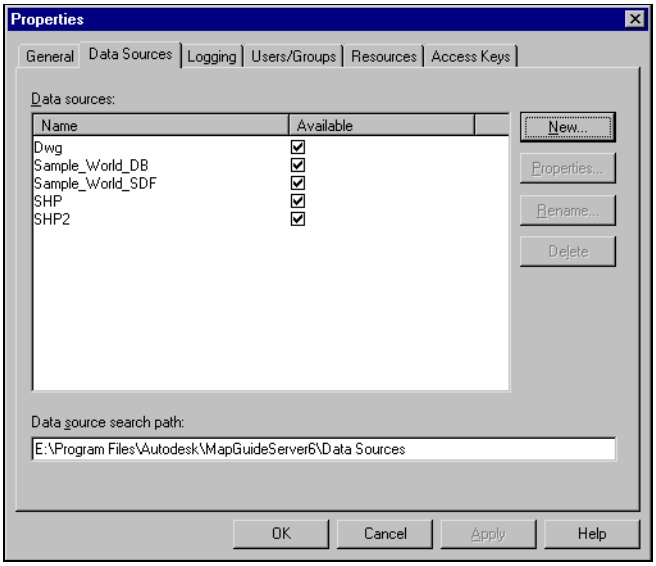
The following illustration shows an example search path, *D:\Shpfiles*.



7 Click the Advanced tab, and then specify the coordinate system in which the SHP files are stored.

8 Click OK to close the Data Link Properties dialog box.

The Properties dialog box is displayed showing the name of the new data source in the Data Sources tab.



Using a Text Editor to Create Data Sources

To modify the UDL file using a text editor, you must enclose the SHP search path in quotation marks inside the UDL file as shown in the following example of a connection string.:

```
[oledb]
; Everything after this line is an OLE DB initstring
Provider=ASDPSHP.SHPSDP.1;Data Source="";
Extended Properties="";
SHP Search Path="E:\shape files\;E:\SHP\";Default SRS=*XY-MT*
```

A connection string is a string version of the initialization properties needed to connect to a data source. For information about the connection string and using Windows tools to create and modify a data source, refer to the Microsoft Developer Network documentation.

Using Provider for SHP

3

This chapter describes how to author and publish maps containing SHP data by first saving SHP files to a location in the SHP search path, and then associating the SHP data with a layer in Autodesk MapGuide® Author. It describes how you use Autodesk MapGuide Author to save the map containing the SHP layer to an MWF file, and how Autodesk MapGuide® Server serves the MWF over the Internet or intranet.

In this chapter

- Authoring maps
- Using Zoom Goto categories
- Preparing the map for delivery
- Viewing the MWF in Autodesk MapGuide Viewer

Authoring Maps

Using Autodesk MapGuide Author and Provider for SHP, you follow these general steps to create maps using native SHP data For more information about authoring maps, refer to the Autodesk MapGuide Users Guide.

1 Create the SHP layer using Autodesk MapGuide Author to associate a layer with a SHP file.
2 Name features, assign URL links to features, or filter features (optional).
3 Set the center and size of the SHP map.
4 Create Zoom Goto categories (optional).
5 Prepare the map for viewing over the Internet or an intranet by setting its size and saving it as an MWF.

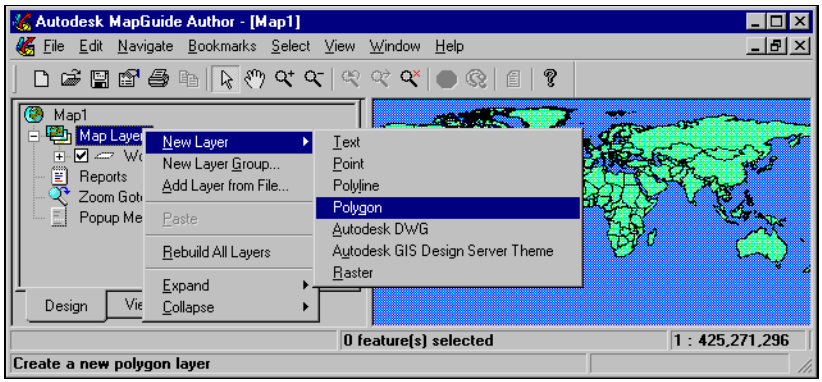
Creating the SHP Layer

This section describes how to create a SHP layer.

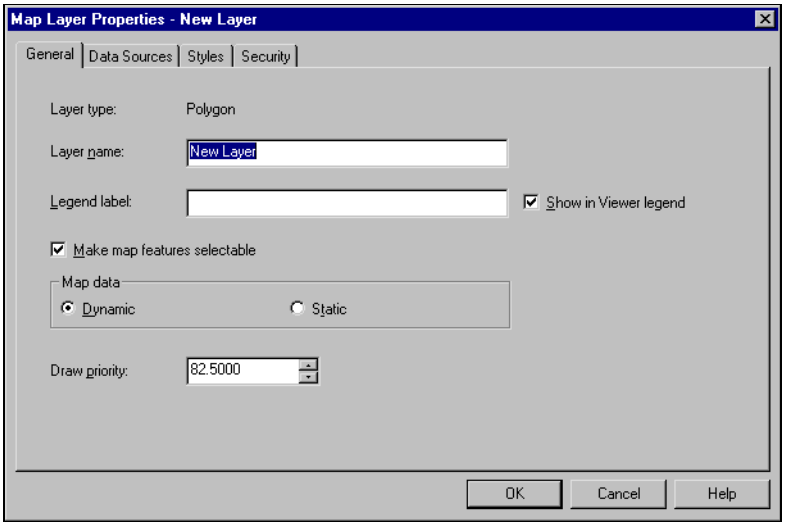
To create a SHP layer

1 In Autodesk MapGuide Author, open an existing MWF file, or create a new one.
2 In the Map Explorer, right-click Map Layers to display the Map Layer popup menu, choose New Layer, and then choose either Text, Point, Polyline, or Polygon. For example, choose New Layer ➤ Polygon.

The following window shows these menu selections.



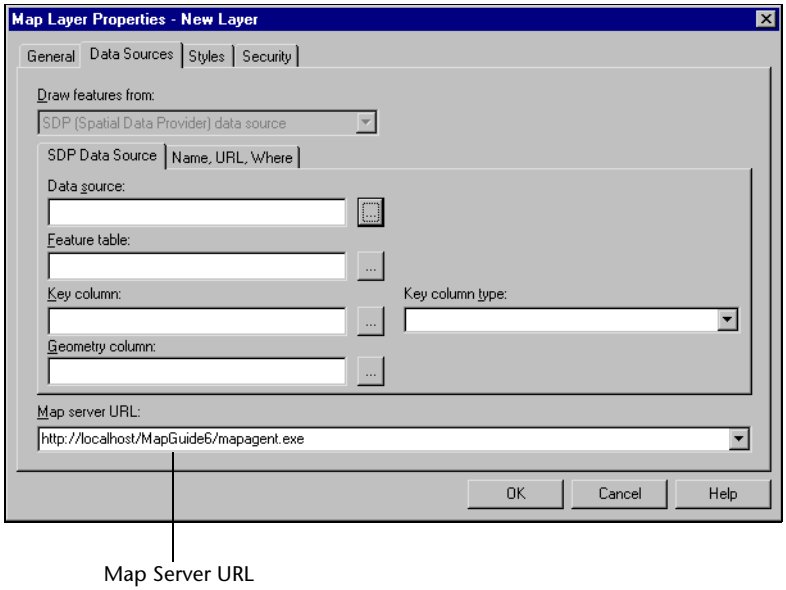
The Map Layer Properties dialog box is displayed after you choose Map Layers ➤ New Layer ➤ Polygon.



3 On the General tab, enter the layer name and legend label.

4 Click the Data Sources tab, and check that the Map Server URL contains the address of your Autodesk MapGuide Server. If the Map Server URL points to www.mapguide.com, you must change it to the URL for the MapAgent broker for your Autodesk MapGuide Server.

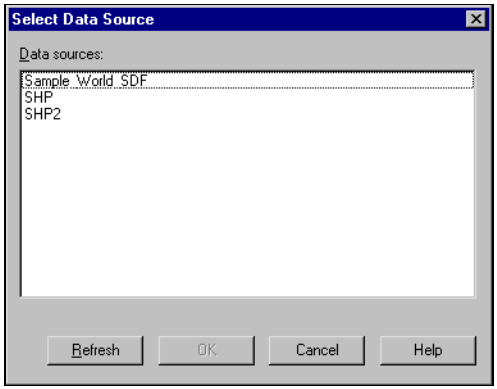
The Map Server URL drop-down list shows that your map server URL has replaced the default.



5 On the SDP Data Source tab, click the browse button for Data Source.

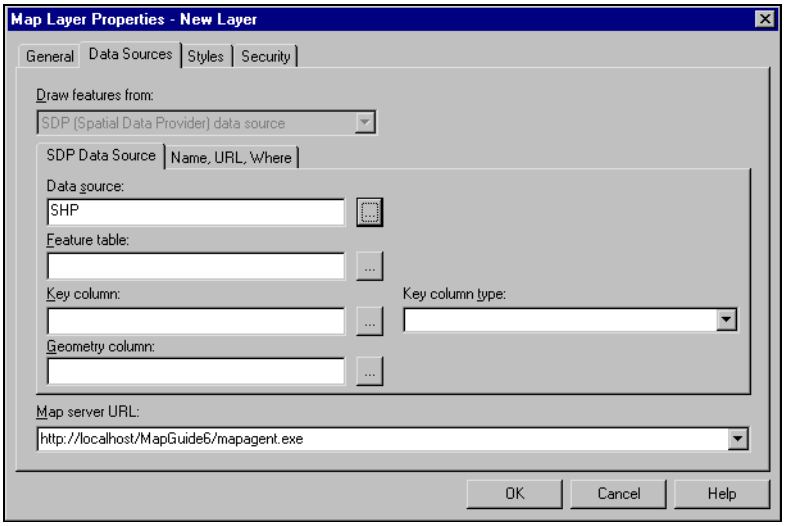
6 Enter an Autodesk MapGuide Author user name and password if you are prompted for them. See your system administrator if you do not have a user name and password.

The Select Data Source dialog box is displayed showing the available data sources.



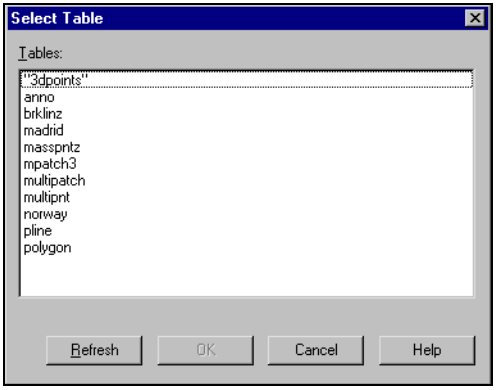
7 Select a SHP data source.

The Map Layer Properties dialog box is displayed showing the data source you selected.



8 Click the browse button for the Feature Table.

The Select Table dialog box is displayed showing the list of feature tables.

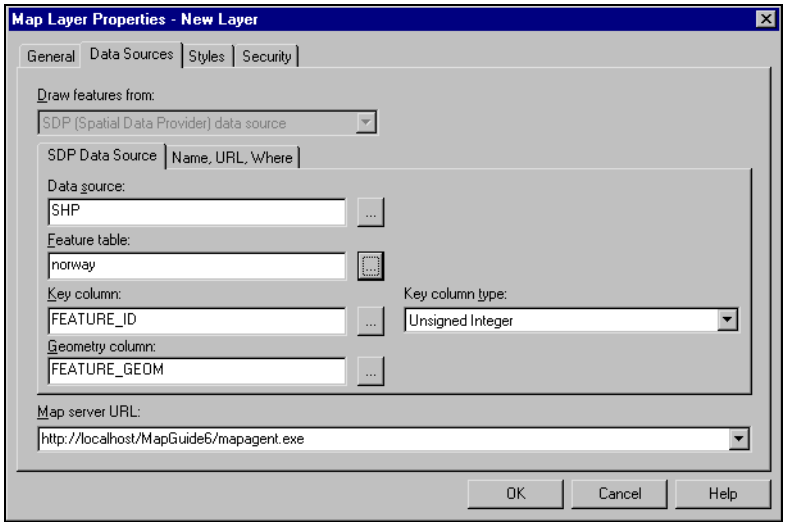


If the table of SHP data you want is not listed, copy the SHP file and its associated DBF and SHX files to the directory specified by the SHP search path setting. Click the Refresh button.

9 Select the name of the table containing features that you want to display on this layer.

Note Do not change the values in the Key and Geometry columns.

The Map Layer Properties New Layer dialog box is displayed showing the values in the Feature Table, Key Column, and Geometry Column sections.



10 Click OK to close the Map Layer Properties dialog box.

If you cannot see the map after creating the SHP layer or if the map is too small or too large, follow the procedure "Setting the Center and Size of the Map" on page 43 to change the parameters for displaying the map.

Follow instructions in the next section to assign names to map features.

Naming Features

You use the Name, URL, Where tab on the Data Sources tab of the Map Layer Properties dialog box to specify the column of the DBF file that contains the names for map features on the SHP layer. The name of a feature is displayed as a MapTip when the user pauses the mouse pointer over that feature, and it is displayed as a feature label at specified zoom levels (unless the label would overpost another label).

The column values used in the DBF may not be descriptive enough for use as a MapTip or feature label. For example, the DBF contains a column of parcel numbers that you want to use as MapTips. You want to preface each parcel number with the words "parcel number" and a space, to create MapTips that

are self-explanatory (for example, parcel number 4563). With OLE DB layers, you can enhance column names by concatenating strings to the column name (for example, “parcel number: “+ FEATURE_NAME).

For more information about MapTips, choose Help ➤ Contents in Autodesk MapGuide Author, click the Index tab, and look up “MapTips.” For more information about feature labels, choose Help ➤ Contents in Autodesk MapGuide Author, click the Index tab, and look up “labels for features.”

Note Provider for SHP does not support multiline MapTips.

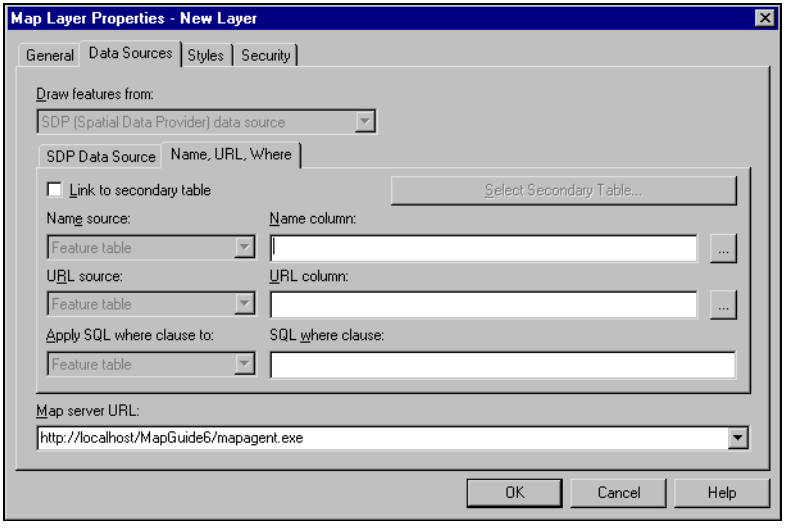
The following procedure assumes that you created the SHP layer as described in “Creating the SHP Layer” on page 34.

To assign feature names

1 Click the Data Sources tab of the Map Layer Properties dialog box.

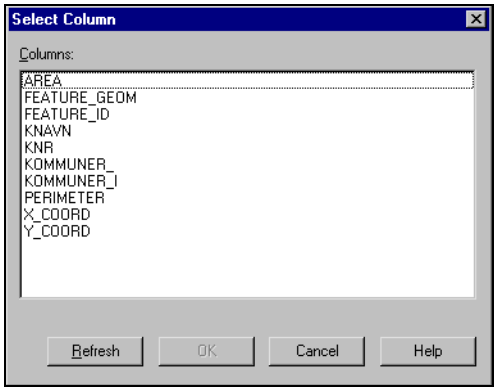
2 Click the Name, URL, Where tab.

The Name, URL, Where tab is displayed .



3 Click the browse button for the Name Column.

The Select Column dialog box is displayed showing the names of the columns of the DBF associated with the SHP layer, in this example the columns of the *norway.dbf* file associated with a Norway SHP file.



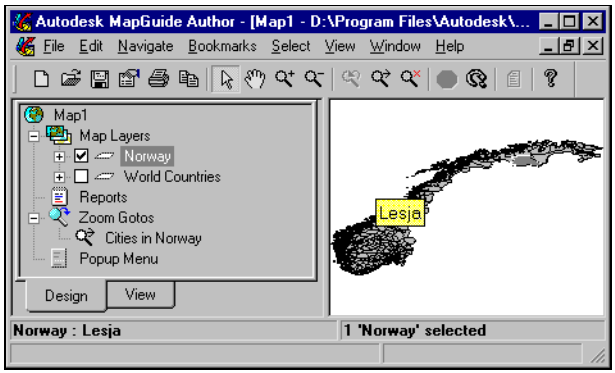
4 Select the column that contains the names of features whose labels you want to display.

   In this example, you select KNAVN to display the names of Norwegian cities as MapTips and feature labels.

5 Select and zoom the map.

6 Position the mouse pointer over a feature, and pause.

   A MapTip (in this example, Lesja) is displayed.



To display feature labels

1 Click the Styles tab in the Map Layer Properties dialog box.

2 Select the Label Map Features check box.

3 Click OK to close the Map Layer Properties dialog box.

For more information about feature labels, choose Help ➤ Contents in Autodesk MapGuide Author, click the Index tab, and look up "vectors, Setting Style Properties in Vector Layers."

Follow the instructions in "Preparing the Map for Delivery" on page 56 to display the map properly for Autodesk MapGuide Viewer users.

Assigning URL Links to Features

This section describes how to assign URL links to features. You save SHP layers as MWF files in Autodesk MapGuide Author and place the MWF files in a Web directory on Autodesk MapGuide Server. Then, an Autodesk MapGuide Viewer user can click a feature displayed on a SHP layer to which you have assigned a URL link and go directly to the Web page.

To assign URL links to features

1. In the DBF file of the SHP data source to which you want to assign URLs, create a column containing URLs.
2. Click the Data Sources tab of the Map Layer Properties dialog box.
3. Click the Name, URL, Where tab.
4. Click the browse button for the URL Column, and select the name of the column that contains the URLs associated with the map features.

   Tip The column can contain FTP URLs or JavaScript commands, such as `javascript:alert("This pump is inactive.")`.

5. Click OK to close the Map Layer Properties dialog box.

Filtering Features

You can specify a SQL WHERE clause to filter the display of map features on the map layer. Using the WHERE clause, you refer to a column from the feature table.

Note Do not include the word "where" in a WHERE clause.

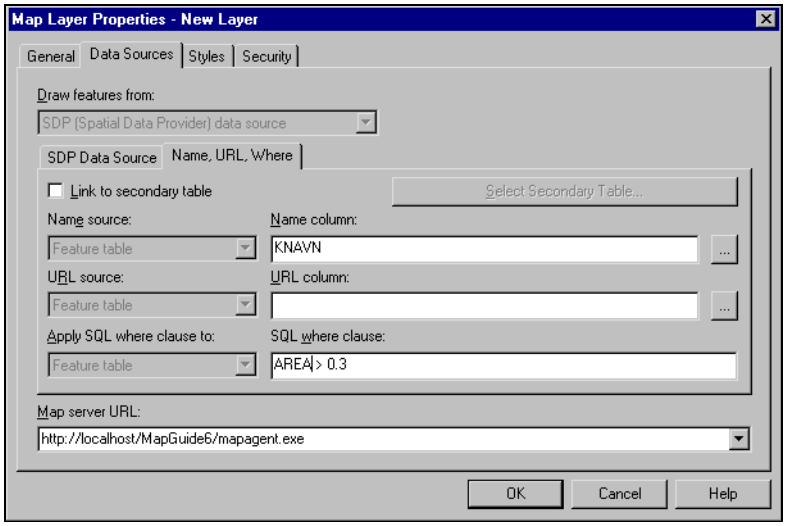
The following procedure assumes that you created the SHP layer as described on page 34.

To filter map features

1. Click the Data Sources tab of the Map Layer Properties dialog box.
2. Click the Name, URL, Where tab.

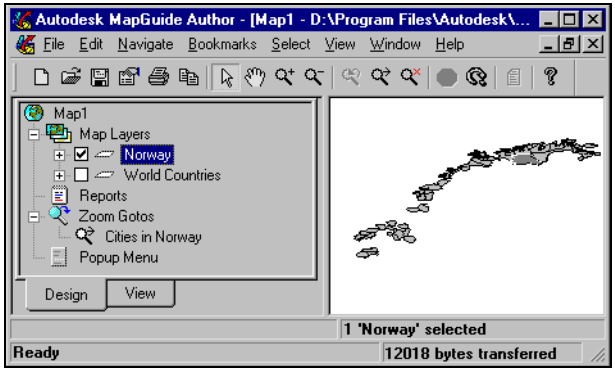
3 Enter in the SQL Where Clause text box a logical expression that is based on the contents of the DBF file. For this example, enter **AREA > 0.3** to filter out the display of Norwegian cities with an area of 0.3 or smaller.

The SQL Where Clause value is set to AREA > 0.3.



4 Click OK to close the Map Layer Properties dialog box.

The Map Window is displayed showing Norwegian cities with an area greater than 0.3.



Setting the Center and Size of the Map

You set the center and size of the map for the following reasons:

- To make it visible in Autodesk MapGuide Author; otherwise, Autodesk MapGuide Author handles the coordinates relative to the map origin 0, 0 when you create the SHP layer.
- To set the display parameters for delivery of the map to Autodesk MapGuide Viewer users.

There are two ways to set the center and size of the map. The easiest way is to zoom to the map features and set the center and size as described in the next section,"Select and Zoom Method." A more precise way of setting the center and size, as described in "Enter Values Method" on page 45, requires that you know the *XY* coordinate, width, and height of the SHP data.

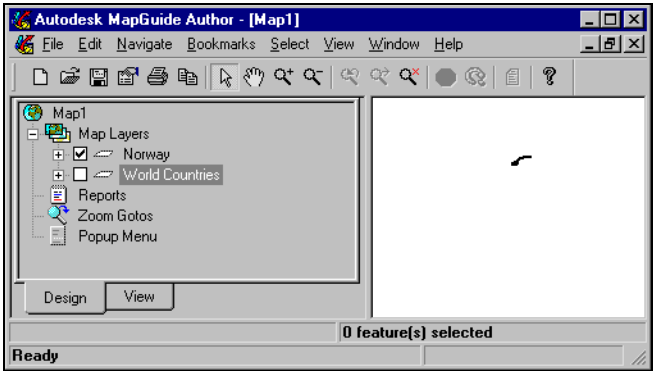
Select and Zoom Method

This procedure assumes that you just finished creating a SHP layer as described in the "Creating the SHP Layer" on page 34.

To set the center and size of the map by zooming

1 In Autodesk MapGuide Author, turn off all layers except the SHP layer.

The Map Window is displayed showing only the contents on the SHP layer, in this example the map of Norway.

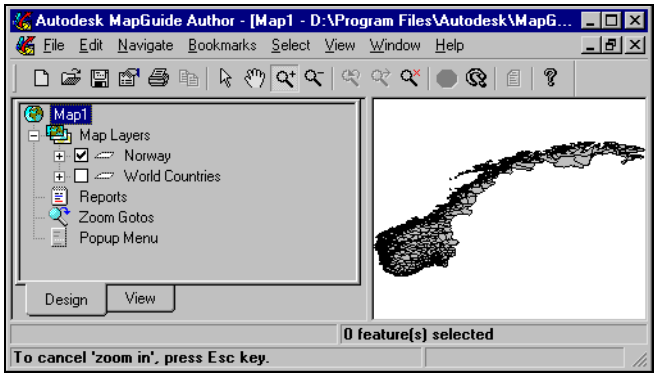


2 Choose Select ➤ Map Features.

3 Click All and then click OK.

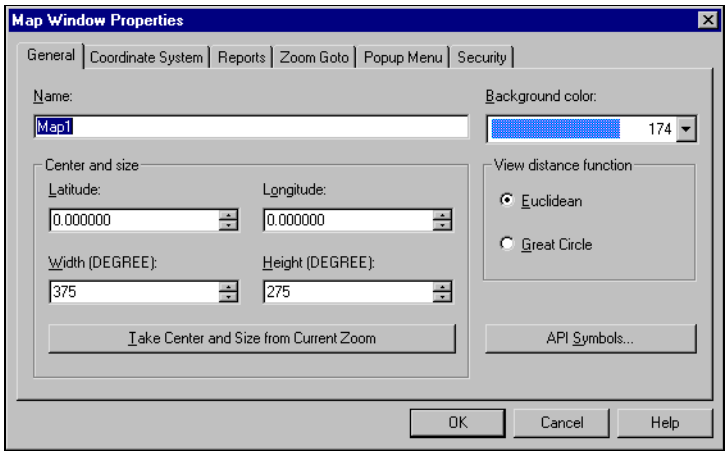
4 Choose Edit ➤ Zoom Selected.

The display zooms in on the map of Norway.



5 Right-click the map to display the Map Window popup menu, and then choose Properties.

The Map Window Properties dialog box is displayed.



6 On the General tab of the Map Window Properties dialog box, click Take Center And Size From Current Zoom.

Autodesk MapGuide Author calculates and sets the Latitude, Longitude, Width, and Height values of the map according to the way it is displayed at the current zoom level.

7 Click OK to close the Map Window Properties dialog box.

Enter Values Method

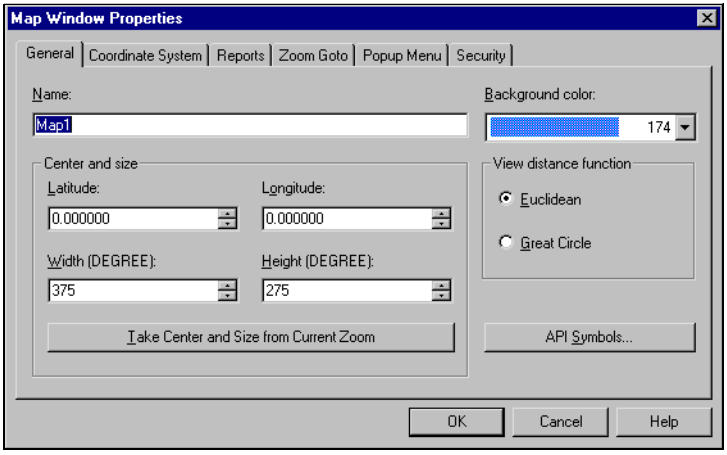
You can set the center and size of the map using actual values for the center and size of the SHP data.

To set the center and size of the map using actual values

1 Turn off all layers except the SHP layer.

2 Right-click in the map to display the Map Window popup menu, and choose Properties.

The Map Window Properties dialog box is displayed.



3 On the General tab, enter the center and size of the SHP data. For this example, set the following values:

Latitude (X-Coordinate): 64.57
Longitude (Y-Coordinate): 17.88
Width: 26.47
Height: 15.61

4 Click OK to close the Map Window Properties dialog box.

The SHP map is displayed, centered and in the size you specified.

Follow instructions in “Preparing the Map for Delivery” on page 56 to display the map properly for Autodesk MapGuide Viewer users.

Using Zoom Goto Categories

Zoom Goto categories are a set of locations, set up in Autodesk MapGuide Author, to which the Autodesk MapGuide Viewer user can zoom by name. For example, you can set up a category for the cities in a Norway SHP file, and the users can zoom to a city by typing its name.

This section describes how to create and test a Zoom Goto category.

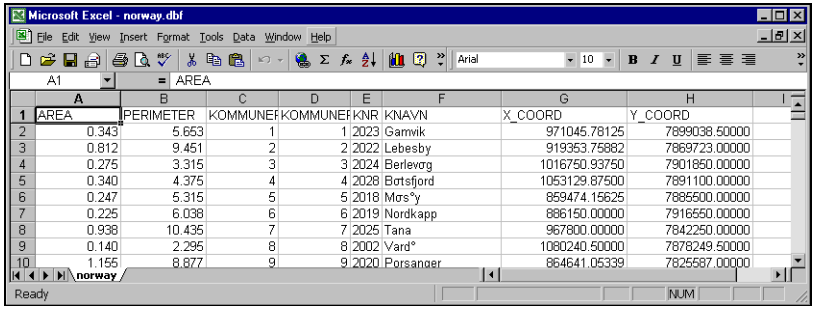
Creating a Zoom Goto Category

You get information to create the Zoom Goto category for a SHP layer from the DBF file associated with the SHP file.

To create a Zoom Goto category

1 Open the DBF file associated with the SHP layer to which you want to add a Zoom Goto Category. For example, using Microsoft® Excel, open *norway.dbf*.

The columns of data contained in *norway.dbf* are displayed.



	A	B	C	D	E	F	G	H
1	AREA	PERIMETER	KOMMUNEF	KOMMUNEF	KNR	KNAVN	X_COORD	Y_COORD
2	0.343	5.653	1	1	2023	Gamvik	971045.78125	7899038.50000
3	0.812	9.451	2	2	2022	Lebesby	919353.75882	7869723.00000
4	0.275	3.315	3	3	2024	Berlevåg	1016750.93750	7901850.00000
5	0.340	4.375	4	4	2028	Båtsfjord	1053129.87500	7891100.00000
6	0.247	5.315	5	5	2018	Mæ°y	859474.15625	7885500.00000
7	0.225	6.038	6	6	2019	Nordkapp	886150.00000	7916550.00000
8	0.938	10.435	7	7	2025	Tana	967800.00000	7842250.00000
9	0.140	2.295	8	8	2002	Vardø	1080240.50000	7878249.50000
10	1.155	8.877	9	9	2020	Porsanger	864641.05339	7825587.00000

2 Note the name of the column that has the information you want to zoom to.

If you want users to zoom to cities in Norway, note the name of the column of cities, KNAVN.

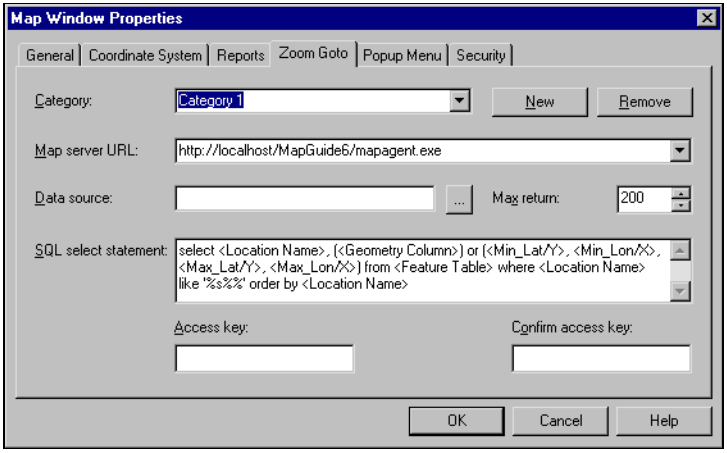
3 In Autodesk MapGuide Author, choose File ➤ Open, and click the file containing the SHP layer.

For this example, open an MWF that contains a SHP layer created from a SHP file called *norway.shp*.

4 Right-click in the map to display the Map Window popup menu, and choose Properties.

5 Click the Zoom Goto tab, and click New.

The Map Window Properties dialog box is displayed showing the default values for Category, Map Server URL, and SQL Select Statement.



6 Change the name of the default category to one that suits the category you are creating. For this example, name the category Cities in Norway.

7 Check that the Map Server URL is set to the URL and MapAgent for your server.

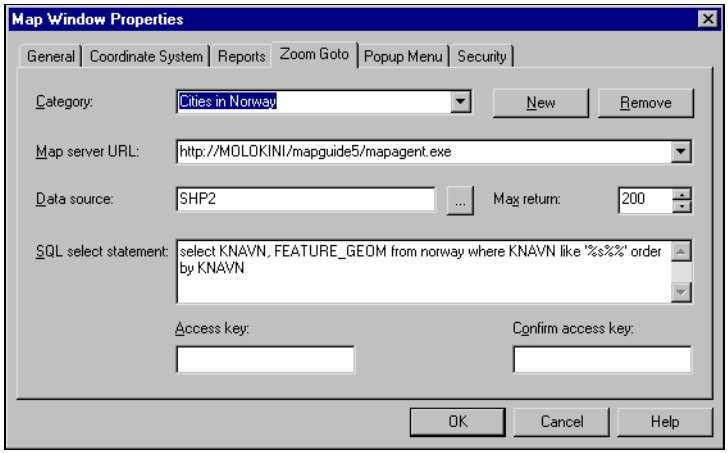
8 Click the browse button for the Data Source. Enter your Autodesk MapGuide Author user name and password if you are prompted for them, and then click the data source containing the target data for the Zoom Goto category.

9 Change the default SQL statement to query the database for the locations you want users to zoom to. For this example, to select any of the Norwegian cities listed in the *norway.dbf* file, replace the default SQL statement with the following statement:

```
select KNAVN, FEATURE_GEOM from norway where KNAVN like '%s%%'
order by KNAVN
```

For more information, see “Creating SQL Statements for Zoom Goto Categories” on page 48.

The following dialog box shows the value of the SQL Select Statement set to select Norwegian cities.



10 Close the DBF file that you opened in step 1, and click OK to close the Map Window Properties dialog box.

The Zoom Goto categories are set up and you can zoom to specified locations by name. For information about using the Zoom Goto categories, see "Testing a Zoom Goto Category" on page 54.

Creating SQL Statements for Zoom Goto Categories

SQL statements describe how to query the database for the locations you want users to zoom to. Creating the SQL statement is an essential step in creating a Zoom Goto category. For example, step 9 of "Creating a Zoom Goto Category" on page 47 tells you to change the default SQL statement to query the database for the locations you want users to zoom to. You create the SQL statement for the Zoom Goto category by modifying the default SQL statement that is displayed on the Zoom Goto tab of the Map Window Properties dialog box.

To create a SQL statement for a Zoom Goto category

1 Open the DBF file associated with the SHP layer to which you want to add a Zoom Goto Category.

2 Using the Zoom Goto tab of the Map Properties dialog box, you click New to create a new Zoom Goto category.

The following default SQL statement is displayed; use the default statement as a model:

```
select <Location Name>, (<Geometry Column>) or (<Min_Lat/Y>,
<Min_Lon/X>, <Max_Lat/Y>, <Max_Lon/X>) from <Feature Table> where
<Location Name> like '%s%%' order by <Location Name>
```

3 Remove the following characters from the default SQL statement:

- The parentheses
- The OR operator
- The angle brackets < >, except the last set
- The characters Min_Lat/Y, Min_Lon/X, Max_Lat/Y, Max_Lon/X

The resulting model SQL statement is:

```
select Location Name, Geometry Column from Feature Table where
Location Name like '%s%%' order by <Location Name>
```

4 Replace variables and angle brackets as described in the following table:

Instructions for Replacing Default SQL Statement Variables

Variable	Instructions
<Location Name>	Enter the name of the column in the DBF file that contains the name of the feature you want to zoom. For example, in the Norway DBF shown in the previous procedure, the cities are listed in the column KNAVN, so this is the <Location Name>. Insert a comma after the location name. Use uppercase or lowercase characters because the location name is case insensitive.
<Geometry Column>	Enter FEATURE_GEOM in your SQL statement to select the column from the DBF. Delete the variables prefaced by Min_ and Max_.

Instructions for Replacing Default SQL Statement Variables (*continued*)

Variable	Instructions
<Min_Lat/Y> <Min_Lon/X> <Max_Lat/Y> <Max_Lon/X>	Not used by Provider for SHP or other Spatial Data Providers. You use this variable with products such as Autodesk GIS Design Server Access Extension to zoom to a point specified by minimum and maximum values in a database column.
<Feature Table>	Enter the name of the SHP file without the SHP file extension. For more information about the feature table variable, see "Understanding the Feature Table Variable" in the next section.

For example, to select Norwegian cities listed in the *norway.dbf* file, replace the default SQL statement with the following statement:

```
select KNAVN, FEATURE_GEOM from norway where KNAVN like '%s%%' order
by KNAVN
```

Understanding the Feature Table Variable

You can create a query using a fully qualified path for the feature table name (SHP file name). If the feature table name includes path information that is different from the SHP search path, the SHP search path is ignored, and the included path is used in the query. If the query does not contain a fully qualified path, the first file that matches the given feature table name in the SHP search path is used as the feature table.

Supported SQL Features

The following list shows the SQL features supported by Provider for SHP:

- min(), max(), and count() functions
- DISTINCT
- A simple WHERE clause that meets the following specifications:
  - Supports multiple predicates
  - Supports the following evaluators: =, <, >, <>, >=, <=, LIKE, NOT LIKE, IS NULL, IS NOT NULL, IN, NOT IN
  - ORDER BY is either ASC or DESC

Using SQL Keywords as Column Names

SHP DBF files may have column names that are SQL keywords. To use such column names in SQL statements, you must enclose them in quotation marks. For example, if a column in the DBF is named DESC, use “DESC” in your SQL statement.

The following table lists Oracle and ANSI SQL keywords:

SQL Keywords

ACTION	ADA	ADD
ALL	ALTER	AND
ANY	AS	ASC
AT	AUTHORIZATION	BETWEEN
BIT	BOTH	BY
CASCADE	CASCADED	CAST
CHAR	CHARACTER	CHECK
CLOSE	COBOL	COLLATE
COLLATION	COLUMN	COMMIT
CONSTRAINT	CONTINUE	CREATE
CROSS	CURRENT	CURRENT_DATE
CURRENT_TIME	CURRENT_TIMESTAMP	CURRENT_USER
CURSOR	DATE	DAY
DEC	DECIMAL	DECLARE
DEFAULT	DEFERRED	DELETE

SQL Keywords (*continued*)

DESC	DISTINCT	DOMAIN
DOUBLE	DROP	ESCAPE
EXISTS	EXTRACT	FETCH
FLOAT	FOR	FOREIGN
FORTRAN	FOUND	FROM
FULL	GLOBAL	GO
GOTO	GRANT	GROUP
HAVING	HOUR	IN
INT	INDEX	INDICATOR
INNER	INITIALLY	INSERT
INT	INTEGER	INTERVAL
INTO	IS	JOIN
KEY	LANGUAGE	LEADING
LEFT	LIKE	LOCAL
MATCH	MINUTE	MODIFY
MODULE	MONTH	NATIONAL
NATURAL	NCHAR	NO
NOT	NULL	NUMERIC
OF	ON	OPEN

SQL Keywords (*continued*)

OPTION	OR	ORDER
OUTER	OVERLAPS	PARTIAL
PASCAL	PLI	POSITION
PRECISION	PRIMARY	PRIVILEGES
PROCEDURE	PUBLIC	REAL
REFERENCES	RENAME	RESTRICT
REVOKE	RIGHT	ROLLBACK
SCHEMA	SECOND	SELECT
SESSION_USER	SET	SMALLINT
SOME	SQLCODE	SYSTEM_USER
TABLE	TEMPORARY	TIME
TIMEZONE_HOUR	TIMEZONE_MINUTE	TIMESTAMP
TO	TRAILING	TRIM
TRANSLATION	UNION	UNIQUE
UPDATE	USER	USING
VALUES	VARCHAR	VARYING
VIEW	WHENEVER	WHERE
WITH	WORK	YEAR
ZONE		

Using SQL Comparisons with Evaluators

Provider for SHP compares evaluators based on the data type of the source DBF column.

In the following example, if the PARCEL column data type is numeric, Provider for SHP makes a numerical comparison:

```
select NAME, PARCEL from MyTable where PARCEL < 20
```

Unsupported Features

Provider for SHP does not support all SQL features. The following list includes some of the features that are not supported:

- Joins
- Aliases
- Multiple tables

For more information about SQL features, keywords, and functions, refer to the Oracle SQL documentation.

Testing a Zoom Goto Category

Using Autodesk MapGuide Viewer or Autodesk MapGuide Author, you can zoom to the Zoom Goto locations you set up in Autodesk MapGuide Author. It is more convenient to test the Zoom Goto category from within the authoring environment.

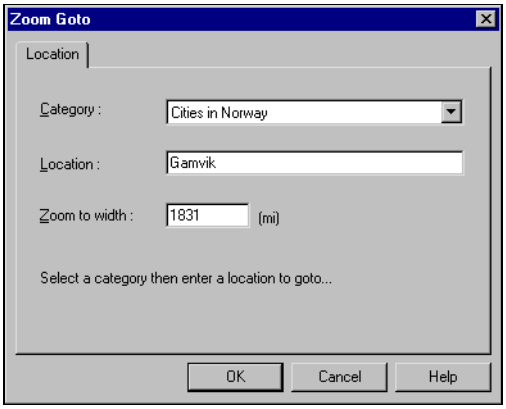
To test a Zoom Goto category

1. Assuming you just finished the procedure "Creating a Zoom Goto Category" on page 46, choose Edit ➤ Zoom Goto from the Autodesk MapGuide Author popup menu.

   The Zoom Goto dialog box is displayed.
2. Select the Zoom Goto category that you want to test.

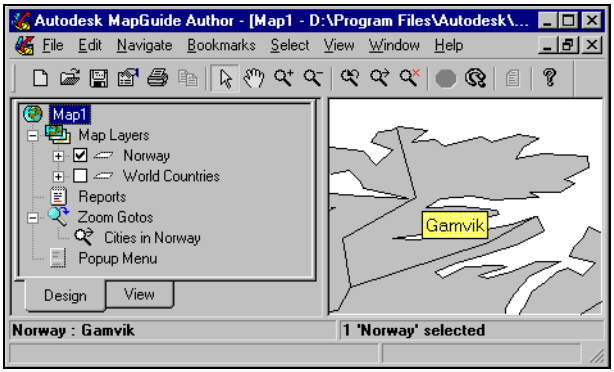
3 In the Zoom Goto dialog box, enter a location (in uppercase and lowercase characters) from the column that you specified as the <Location Name> in the Zoom Goto SQL statement. For example, enter the value Gamvik from the KNAVN column of the Norway DBF.

The Location value set to Gamvik is displayed.



4 Click OK to close the Zoom Goto dialog box.

The Map Window is displayed showing the city Gamvik.



Preparing the Map for Delivery

You can zoom the map to the size you want to deliver to users, and clip it.

To prepare the map for delivery

1. Zoom in or out to display the detail that you want users to see.
2. Right-click in the map to display the Map Window popup menu, and choose Properties.

   The Map Window Properties dialog box is displayed.
3. Click Take Center And Size From Current Zoom to clip the map.
4. Click OK in the Map Window Properties dialog box.
5. Choose File ➤ Save to save the data as an MWF.

Viewing the MWF in Autodesk MapGuide Viewer

Users can view the SHP information in the MWF over the Internet or an intranet.

To test and view the SHP file using Autodesk MapGuide Viewer

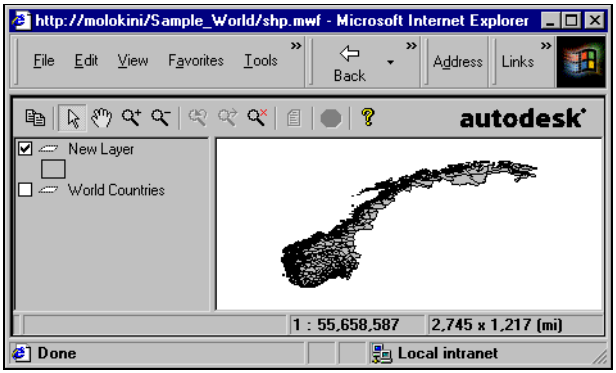
1 Save the layer in Autodesk MapGuide Author, and put the MWF in a Web directory on the Autodesk MapGuide Server.

2 Open a browser.

3 Enter the URL to the MWF. For example, if your Web server URL is www.ServerName.com and your Web directory is called *MapGuide*, enter the following URL:

   http://www.ServerName.com/MapGuide/norway.mwf

   The SHP map is displayed in Autodesk MapGuide Viewer.



Geometry Mapping and Troubleshooting

4

This chapter describes problems that you might encounter with Autodesk MapGuide® Provider for SHP and how to solve them. It also covers the geometry mapping between the OLE DB components and how Provider for SHP determines feature table availability.

In this chapter

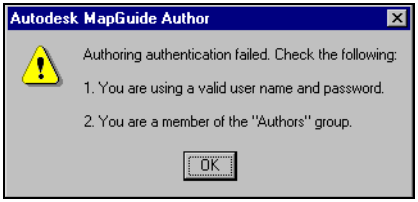
- Troubleshooting
- Known issues
- Error handling
- Geometry mapping

Troubleshooting

This section describes solutions to common problems that occur when using Provider for SHP.

Autodesk MapGuide Author Denies Authorization

Problem You receive the Author Authentication Failed error message, even though you have entered the correct user name and password, and you are a member of the Authors group.



Solution Make sure that you have entered the correct Map Server URL in the Map Layer Properties dialog box.

Visibility of the Map In Autodesk MapGuide Author

Problem You cannot see the map on the SHP layer in Autodesk MapGuide® Author.

Solution

1. In the Map Explorer, turn off layers other than the SHP layer.
2. Choose Select ➤ Map Features.
3. Click All.
4. Choose Edit ➤ Zoom Selected.

Visibility of the Map in Autodesk MapGuide Viewer

Problem The user cannot see the map in Autodesk MapGuide® Viewer.

Solution The map is either outside the display range of the map or is too small. Clip the map, as described in "Preparing the Map for Delivery" on page 56, and ask the user to retry.

Accessibility of SHP Files in Autodesk MapGuide Server Admin

Problem You cannot access the SHP files using Autodesk MapGuide® Server Admin.

Solution Check that the SHP files are in the SHP search path. If the data source does not exist, create the data source as described in "Creating Data Sources" on page 28.

Accessibility of SHP Files in Autodesk MapGuide Author

Problem You copied the SHP file to the directory specified by the SHP search path setting, but it does not appear in the list of available feature tables when you browse for it using the SDP Data Sources tab in the Map Layer Properties dialog box.

Solution Try one or both of the following:

- Click Refresh in the Select Table dialog box.
- Check that the correct server URL is displayed under Map Server URL in the Map Layer Properties dialog box.

Updating or Repairing the Installation

Problem Using the Add/Remove Programs control panel to update or repair the installation does not update or repair the installation.

Solution

1. Click the *setup.exe* file on the Provider for SHP CD.
2. Click Next.
3. Follow the on-screen instructions to update or repair Provider for SHP.

Incompatible Coordinate System

Problem You get the following error message: "The coordinate system associated with the selected geometry column is not compatible with the map. Use the Map Window Properties dialog box to specify a compatible coordinate system."

Solution The error message is displayed only when the coordinate system of the MWF is Arbitrary X-Y and the coordinate system information for the data source is set as a projected coordinate system, or vice versa. For example, the error message is displayed if the MWF is Arbitrary X-Y and the coordinate system of the data source is MT83 (NAD83 Montana State Plane Zone, Meter).

1. Verify that your data source is set up correctly. See"Creating Data Sources" on page 28.
2. Use the Map Windows Properties dialog box to specify a compatible coordinate system. See "Matching the SHP and MWF Coordinate Systems" on page 22.

Known Issues

This section describes product problems or characteristics that exist in this release.

Coordinate System Mismatch

Problem SHP files have been authored in coordinate systems for which there is no Autodesk MapGuide match.

Solution Using the ArcView® GIS Projection Utility, assign a coordinate system, for which there is an Autodesk MapGuide match, to the SHP file.

Keywords in SQL Statements

Problem Some SHP files may have been authored with column names, such as DESC or ADD, that are SQL keywords. Creating SQL statements for Zoom Goto categories that use these column names causes a SQL error.

Solution Enclose column names that are SQL keywords in quotation marks. You can then use them in SQL statements.

Height and Angle of Text for MapTips and Labels

Problem When creating a text layer from a SHP data source, Autodesk MapGuide Author cannot access the text height and angle because this information is in the DBF file.

Solution 1 Set the height and angle of the text in Autodesk MapGuide Author. This applies the specified height and angle to all text on the layer.

Solution 2 Using SDF Loader, export a comma-separated value (CSV) table from the SHP source data, using the /COORDSYS: and /TABLE:STYLE:XY: switches. Use the CSV table to create an OLE DB data source for the Text layer. This solution applies the height and angle to each specified text feature.

Locked DBF

Problem The DBF cannot be accessed, and it is open.

Solution Close the DBF when you are finished using it and before continuing to use Provider for SHP.

Access to SHP and OLE DB Data Sources

Problem Spatial data from SHP and OLE DB data sources cannot be accessed concurrently, which means that you cannot use an OLE DB table as a secondary table when you access geometry. For example, when you use an OLE DB data source to access a DBF file, OLE DB attempts to put an exclusive lock on the file. If Provider for SHP is using the file, OLE DB fails. This is due to a problem with MDAC.

Solution None for this release.

getDataFile Method Returns an Empty String

Problem Using Autodesk MapGuide Viewer API with the Java™ Edition Viewer, when you call the getDataFile method, it returns an empty string instead of the file name for the SHP layer.

Solution None for this release.

Displaying Multipoint Features

Problem Autodesk MapGuide displays only the first point of a multipoint SHP feature.

Solution None for this release.

Error Handling

Provider for SHP reports errors in the Event Viewer. Error messages include an error code, an error level indicator, and a text string describing the error and the line number, file name, and module name where the error occurred.

Geometry Mapping

Understanding the mapping of the geometry types identified within SHP files to the types exported from Provider for SHP is important for using the products effectively. This section describes how ESRI SHP files map to OpenGIS WKB Well-Known Binary (WKB) geometry types and how the WKB types map to Autodesk MapGuide features. It also describes the OpenGIS geometry types that can be displayed on each Autodesk MapGuide map layer.

SHP to OpenGIS WKB Geometry

The SHP files use ESRI® geometries, which currently support fourteen geometric primitives. The following table describes the mapping of SHP geometry to the OpenGIS WKB geometry type:.

SHP Geometry	OpenGIS WKB Geometry Type
NULL SHAPE	N/A
POINT	Point
POLYLINE	LineString or MultiLineString
POLYGON	Polygon or MultiPolygon
MULTIPOINT	MultiPoint
POINTZ	Point
POLYLINEZ	LineString or MultiLineString
POLYGONZ	Polygon or MultiPolygon
MULTIPOINTZ	MultiPoint
POINTM	Point
POLYLINEM	LineString or MultiLineString
POLYGONM	Polygon or MultiPolygon
MULTIPOINTM	MultiPoint
MULTIPATCH	MultiPolygon

OpenGIS WKB Geometry to Autodesk MapGuide Features

Autodesk MapGuide Server maps OpenGIS Well-Known Binary (WKB) geometry representations to Autodesk MapGuide feature geometry in the context of the map layer on which the features are displayed. The following table describes the mapping of OpenGIS WKB geometry by Autodesk MapGuide layer type:.

Layer Type	OpenGIS WKB Geometry	Autodesk MapGuide Feature Geometry
Text	Point	Text feature
	GeometryCollection	First point element mapped to text feature, all other elements ignored
	Multipoint	First point element mapped to point feature, all other elements ignored
Point	Point	Point feature
	GeometryCollection	First point element mapped to point feature, all other elements ignored
	Multipoint	First point element mapped to point feature, all other elements ignored
Polyline	Linestring	Polyline feature
	MultiLinestring	Polypolyline feature
	GeometryCollection	First linestring or multiLinestring element mapped to polyline or polypolyline feature, all other elements ignored
Polygon	Polygon	Polygon feature if there is only a single ring, all others become polypolygon features
	MultiPolygon	Polypolygon feature
	GeometryCollection	First polygon or multiPolygon element mapped to polygon or polypolygon feature, all other elements ignored

Autodesk MapGuide Layer to OpenGIS WKB Geometry

The table in this section describes the OpenGIS geometry types that can be displayed on each Autodesk MapGuide map layer. In Autodesk MapGuide Author this information is used to validate which geometry columns from feature tables can be used as sources for each of the map layer types.

Layer	OpenGIS WKB Geometry
Text	Text
Point	Point, Polypoint
Polyline	Polyline, Polypolyline
Polygon	Polygon, Polypolygon

Matching SHP and MWF Coordinate Systems

A

This appendix consists of a table that describes how ESRI® coordinate systems used in SHP files, and stored in PRJ files, map to the equivalent coordinate system used in Autodesk MapGuide® MWF files.

In this appendix

- Using the coordinate system table
- Matching coordinate systems

Using the Coordinate System Table

The default data source that you create when you install SHP Extension includes the location of the SHP files that you entered during installation, but no coordinate system information. You must specify the MWF coordinate system that corresponds to the coordinate system of the SHP files before using the default SHP data source and as you create additional data sources. For more information, see "Specifying the Coordinate System" on page 26.

Matching Coordinate Systems

The following table matches coordinate systems of SHP maps to the corresponding MWF coordinate systems based on information from the following sources:

- Australia
- Indonesia
- New Zealand
- State Plane NAD 1927
- State Plane NAD 1983
- State Plane NAD 1983 (Feet)
- UTM WGS 1984
- World

If you do not find a corresponding MWF coordinate system, use the ArcView® GIS Projection Utility to convert the SHP data to a coordinate system for which there is a corresponding MWF coordinate system.

Australia

Coordinate Systems for Australia

SHP Coordinate System	MWF Coordinate System	CS Code
AGD 1966 AMG Zone 48	None	None
AGD 1984 AMG Zone 48	None	None
GDA 1994 MGA Zone 48	Map Grid of Australia Zone 48, using GDA94 Datum	MGA-48
AGD 1966 AMG Zone 49	Australian Map Grid Zone 49, using AGD66 Datum	AMG66-49
WGS 1984 UTM Zone 49S	Australian Map Grid Zone 49, using AGD84 Datum	AMG-49
GDA 1994 MGA Zone 49	Map Grid of Australia Zone 49, using GDA94 Datum	MGA-49
AGD 1984 AMG Zone 49	Australian Map Grid Zone 49, using AGD84 Datum	AMG-49
AGD 1966 AMG Zone 50	Australian Map Grid Zone 50, using AGD66 Datum	AMG66-50
GDA 1994 MGA Zone 50	Map Grid of Australia Zone 50, using GDA94 Datum	MGA-50
AGD 1984 AMG Zone 50	Australian Map Grid Zone 50, using AGD84 Datum	AMG-50
WGS 1984 UTM Zone 50S	Australian Map Grid Zone 50, using AGD84 Datum	AMG-50
AGD 1966 AMG Zone 51	Australian Map Grid Zone 51, using AGD66 Datum	AMG66-51
GDA 1994 MGA Zone 51	Map Grid of Australia Zone 51, using GDA94 Datum	MGA-51

Coordinate Systems for Australia (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
AGD 1984 AMG Zone 51	Australian Map Grid Zone 51, using AGD84 Datum	AMG-51
WGS 1984 UTM Zone 51S	Australian Map Grid Zone 51, using AGD84 Datum	AMG-51
AGD 1966 AMG Zone 52	Australian Map Grid Zone 52, using AGD66 Datum	AMG66-52
AGD 1984 AMG Zone 52	Australian Map Grid Zone 52, using AGD84 Datum	AMG-52
GDA 1994 MGA Zone 52	Map Grid of Australia Zone 52, using GDA94 Datum	MGA-52
WGS 1984 UTM Zone 52S	Australian Map Grid Zone 52, using AGD84 Datum	AMG-52
AGD 1966 AMG Zone 53	Australian Map Grid Zone 53, using AGD66 Datum	AMG66-53
WGS 1984 UTM Zone 53S	Australian Map Grid Zone 53, using AGD84 Datum	AMG-53
AGD 1984 AMG Zone 53	Australian Map Grid Zone 53, using AGD84 Datum	AMG-53
GDA 1994 MGA Zone 53	Map Grid of Australia Zone 53, using GDA94 Datum	MGA-53
AGD 1966 AMG Zone 54	Australian Map Grid Zone 54, using AGD66 Datum	AMG66-54
WGS 1984 UTM Zone 54S	Australian Map Grid Zone 54, using AGD84 Datum	AMG-54
AGD 1984 AMG Zone 54	Australian Map Grid Zone 54, using AGD84 Datum	AMG-54
GDA 1994 MGA Zone 54	Map Grid of Australia Zone 54, using GDA94 Datum	MGA-54

Coordinate Systems for Australia (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
AGD 1966 AMG Zone 55	Australian Map Grid Zone 55, using AGD66 Datum	AMG66-55
AGD 1984 AMG Zone 55	Australian Map Grid Zone 55, using AGD84 Datum	AMG-55
GDA 1994 MGA Zone 55	Map Grid of Australia Zone 55, using GDA94 Datum	MGA-55
WGS 1984 UTM Zone 55S	Australian Map Grid Zone 55, using AGD84 Datum	AMG-55
AGD 1966 AMG Zone 56	Australian Map Grid Zone 56, using AGD66 Datum	AMG66-56
WGS 1984 UTM Zone 56S	Australian Map Grid Zone 56, using AGD84 Datum	AMG-56
AGD 1984 AMG Zone 56	Australian Map Grid Zone 56, using AGD84 Datum	AMG-56
GDA 1994 MGA Zone 56	Map Grid of Australia Zone 56, using GDA94 Datum	MGA-56
AGD 1966 AMG Zone 57	Australian Map Grid Zone 57, using AGD66 Datum	AMG66-57
GDA 1994 MGA Zone 57	Map Grid of Australia Zone 57, using GDA94 Datum	MGA-57
AGD 1984 AMG Zone 57	Australian Map Grid Zone 57, using AGD84 Datum	AMG-57
WGS 1984 UTM Zone 57S	Australian Map Grid Zone 57, using AGD84 Datum	AMG-57

Coordinate Systems for Australia (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
GDA 1994 MGA Zone 58	Map Grid of Australia Zone 58, using GDA94 Datum	MGA-58
AGD 1966 AMG Zone 58	None	None
AGD 1984 AMG Zone 58	None	None

Indonesia

Coordinate Systems for Indonesia

SHP Coordinate System	MWF Coordinate System	CS Code
GDA 1994 MGA Zone 48	Indonesia, Java West of 108 degrees East	IN-JAVAW

New Zealand

Coordinate Systems for New Zealand

SHP Coordinate System	MWF Coordinate System	CS Code
New Zealand Map Grid	New Zealand National Map Grid, Meter	NZ-MG
New Zealand Geodetic Datum 1949	New Zealand GD-1949 datum, Lat-Long, Degrees -180 to +180	LL-GD1949

USA, Administration

Coordinate Systems for USA, Administration

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane StatePlane Guam FIPS 5400	None	None
NAD 1927 StatePlane Puerto Rico FIPS 5201	NAD27 Puerto Rico and Virgin Islands, Zone 1, US Foot	PR-1
NAD 1983 StatePlane Guam FIPS 5400	None	None
NAD 1983 StatePlane Guam FIPS 5400 (Feet)	None	None
NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200	NAD83 Puerto Rico and Virgin Islands, Meter	PR83
NAD 1927 StatePlane Virgin Islands St. Croix FIPS 5202	NAD27 Puerto Rico, St Croix Virgin Island, Zone 2, US Foot	PR-2

USA, Alabama

Coordinate Systems for Alabama

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Alabama East FIPS 0101	NAD27 Alabama State Planes, East Zone, US Foot	AL-E
NAD 1927 StatePlane Alabama West FIPS 0102	NAD27 Alabama State Planes, West Zone, US Foot	AL-W
NAD 1983 StatePlane Alabama East FIPS 0101	NAD83 Alabama State Planes, East Zone, Meter	AL83-E
NAD 1983 StatePlane Alabama East FIPS 0101 (Feet)	NAD83 Alabama State Planes, East Zone, US Foot	AL83-EF

Coordinate Systems for Alabama (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane Alabama West FIPS 0102	NAD83 Alabama State Planes, West Zone, Meter	AL83-W
NAD 1983 StatePlane Alabama West FIPS 0102 (Feet)	NAD83 Alabama State Planes, West Zone, US Foot	AL83-WF
NAD 1983 StatePlane Alaska 10 FIPS 5010	NAD83 Alaska State Planes, Zone 10, Meter	AK83-10
NAD 1983 StatePlane Alaska 10 FIPS 5010 (Feet)	NAD83 Alaska State Planes, Zone 10, US Foot	AK83-10F
NAD 1983 StatePlane Alaska 2 FIPS 5002	NAD83 Alaska State Planes, Zone 2, Meter	AK83-2
NAD 1983 StatePlane Alaska 2 FIPS 5002 (Feet)	NAD83 Alaska State Planes, Zone 2, US Foot	AK83-2F
NAD 1983 StatePlane Alaska 3 FIPS 5003	NAD83 Alaska State Planes, Zone 3, Meter	AK83-3
NAD 1983 StatePlane Alaska 3 FIPS 5003 (Feet)	NAD83 Alaska State Planes, Zone 3, US Foot	AK83-3F
NAD 1983 StatePlane Alaska 4 FIPS 5004	NAD83 Alaska State Planes, Zone 4, Meter	AK83-4
NAD 1983 StatePlane Alaska 4 FIPS 5004 (Feet)	NAD83 Alaska State Planes, Zone 4, US Foot	AK83-4F
NAD 1983 StatePlane Alaska 5 FIPS 5005	NAD83 Alaska State Planes, Zone 5, Meter	AK83-5
NAD 1983 StatePlane Alaska 5 FIPS 5005 (Feet)	NAD83 Alaska State Planes, Zone 5, US Foot	AK83-5F
NAD 1983 StatePlane Alaska 6 FIPS 5006	NAD83 Alaska State Planes, Zone 6, Meter	AK83-6
NAD 1983 StatePlane Alaska 6 FIPS 5006 (Feet)	NAD83 Alaska State Planes, Zone 6, US Foot	AK83-6F

Coordinate Systems for Alabama (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane Alaska 7 FIPS 5007	NAD83 Alaska State Planes, Zone 7, Meter	AK83-7
NAD 1983 StatePlane Alaska 7 FIPS 5007 (Feet)	NAD83 Alaska State Planes, Zone 7, US Foot	AK83-7F
NAD 1983 StatePlane Alaska 8 FIPS 5008	NAD83 Alaska State Planes, Zone 8, Meter	AK83-8
NAD 1983 StatePlane Alaska 8 FIPS 5008 (Feet)	NAD83 Alaska State Planes, Zone 8, US Foot	AK83-8F

USA, Alaska

Coordinate Systems for USA, Alaska

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Alaska 10 FIPS 5010	NAD27 Alaska State Planes, Zone 10, US Foot	AK-10
NAD 1927 StatePlane Alaska 2 FIPS 5002	NAD27 Alaska State Planes, Zone 2, US Foot	AK-2
NAD 1927 StatePlane Alaska 3 FIPS 5003	NAD27 Alaska State Planes, Zone 3, US Foot	AK-3
NAD 1927 StatePlane Alaska 4 FIPS 5004	NAD27 Alaska State Planes, Zone 4, US Foot	AK-4
NAD 1927 StatePlane Alaska 5 FIPS 5005	NAD27 Alaska State Planes, Zone 5, US Foot	AK-5
NAD 1927 StatePlane Alaska 6 FIPS 5006	NAD27 Alaska State Planes, Zone 6, US Foot	AK-6
NAD 1927 StatePlane Alaska 7 FIPS 5007	NAD27 Alaska State Planes, Zone 7, US Foot	AK-7

Coordinate Systems for USA, Alaska (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Alaska 8 FIPS 5008	NAD27 Alaska State Planes, Zone 8, US Foot	AK-8
NAD 1927 StatePlane Alaska 9 FIPS 5009	NAD27 Alaska State Planes, Zone 9, US Foot	AK-9
NAD 1983 StatePlane Alaska 9 FIPS 5009	NAD83 Alaska State Planes, Zone 9, Meter	AK83-9
NAD 1983 StatePlane Alaska 9 FIPS 5009 (Feet)	NAD83 Alaska State Planes, Zone 9, US Foot	AK83-9F

USA, Arizona

Coordinate Systems for USA, Arizona

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Arizona Central FIPS 0202	NAD27 Arizona State Planes, Central Zone, US Foot	AZ-C
NAD 1927 StatePlane Arizona East FIPS 0201	NAD27 Arizona State Planes, East Zone, US Foot	AZ-E
NAD 1927 StatePlane Arizona West FIPS 0203	NAD27 Arizona State Planes, West Zone, US Foot	AZ-W
NAD 1983 StatePlane Arizona Central FIPS 0202	NAD83 Arizona State Planes, Central Zone, Meter	AZ83-C
NAD 1983 StatePlane Arizona Central FIPS 0202 (Feet)	NAD83 Arizona State Planes, Central Zone, US Foot	AZ83-CF
NAD 1983 StatePlane Arizona East FIPS 0201	NAD83 Arizona State Planes, East Zone, Meter	AZ83-E

Coordinate Systems for USA, Arizona (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane Arizona East FIPS 0201 (Feet)	NAD83 Arizona State Planes, East Zone, US Foot	AZ83-EF
NAD 1983 StatePlane Arizona West FIPS 0203	NAD83 Arizona State Planes, West Zone, Meter	AZ83-W
NAD 1983 StatePlane Arizona West FIPS 0203 (Feet)	NAD83 Arizona State Planes, West Zone, US Foot	AZ83-WF

USA, Arkansas

Coordinate Systems for USA, Arkansas

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Arkansas North FIPS 0301	NAD27 Arkansas State Planes, North Zone, US Foot	AR-N
NAD 1927 StatePlane Arkansas South FIPS 0302	NAD27 Arkansas State Planes, South Zone, US Foot	AR-S
NAD 1983 StatePlane Arkansas North FIPS 0301	NAD83 Arkansas State Planes, North Zone, Meter	AR83-N
NAD 1983 StatePlane Arkansas North FIPS 0301 (Feet)	NAD83 Arkansas State Planes, North Zone, US Foot	AR83-NF
NAD 1983 StatePlane Arkansas South FIPS 0302	NAD83 Arkansas State Planes, South Zone, Meter	AR83-S
NAD 1983 StatePlane Arkansas South FIPS 0302 (Feet)	NAD83 Arkansas State Planes, South Zone, US Foot	AR83-SF

USA, California

Coordinate Systems for USA, California

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane California I FIPS 0401	NAD27 California State Planes, Zone I, US Foot	CA-I
NAD 1927 StatePlane California II FIPS 0402	NAD27 California State Planes, Zone II, US Foot	CA-II
NAD 1927 StatePlane California III FIPS 0403	NAD27 California State Planes, Zone III, US Foot	CA-III
NAD 1927 StatePlane California IV FIPS 0404	NAD27 California State Planes, Zone IV, US Foot	CA-IV
NAD 1927 StatePlane California V FIPS 0405	NAD27 California State Planes, Zone V, US Foot	CA-V
NAD 1927 StatePlane California VI FIPS 0406	NAD27 California State Planes, Zone VI, US Foot	CA-VI
NAD 1927 StatePlane California VII FIPS 0407	NAD27 California State Planes, Zone VII, US Foot	CA-VII
NAD 1983 StatePlane California I FIPS 0401	NAD83 California State Planes, Zone I, Meter	CA83-I
NAD 1983 StatePlane California I FIPS 0401 (Feet)	NAD83 California State Planes, Zone I, US Foot	CA83-IF
NAD 1983 StatePlane California II FIPS 0402	NAD83 California State Planes, Zone II, Meter	CA83-II
NAD 1983 StatePlane California II FIPS 0402 (Feet)	NAD83 California State Planes, Zone II, US Foot	CA83-IIF
NAD 1983 StatePlane California III FIPS 0403	NAD83 California State Planes, Zone III, Meter	CA83-III
NAD 1983 StatePlane California III FIPS 0403 (Feet)	NAD83 California State Planes, Zone III, US Foot	CA83IIIF

Coordinate Systems for USA, California (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane California IV FIPS 0404	NAD83 California State Planes, Zone IV, Meter	CA83-IV
NAD 1983 StatePlane California IV FIPS 0404 (Feet)	NAD83 California State Planes, Zone IV, US Foot	CA83-IVF
NAD 1983 StatePlane California V FIPS 0405	NAD83 California State Planes, Zone V, Meter	CA83-V
NAD 1983 StatePlane California V FIPS 0405 (Feet)	NAD83 California State Planes, Zone V, US Foot	CA83-VF
NAD 1983 StatePlane California VI FIPS 0406	NAD83 California State Planes, Zone VI, Meter	CA83-VI
NAD 1983 StatePlane California VI FIPS 0406 (Feet)	NAD83 California State Planes, Zone VI, US Foot	CA83-VIF

USA, Colorado

Coordinate Systems for USA, Colorado

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Colorado Central FIPS 0502	NAD27 Colorado State Planes, Central Zone, US Foot	CO-C
NAD 1927 StatePlane Colorado North FIPS 0501	NAD27 Colorado State Planes, North Zone, US Foot	CO-N
NAD 1927 StatePlane Colorado South FIPS 0503	NAD27 Colorado State Planes, South Zone, US Foot	CO-S
NAD 1983 StatePlane Colorado Central FIPS 0502	NAD83 Colorado State Planes, Central Zone, Meter	CO83-C
NAD 1983 StatePlane Colorado Central FIPS 0502 (Feet)	NAD83 Colorado State Planes, Central Zone, US Foot	CO83-CF

Coordinate Systems for USA, Colorado (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane Colorado North FIPS 0501	NAD83 Colorado State Planes, North Zone, Meter	CO83-N
NAD 1983 StatePlane Colorado North FIPS 0501 (Feet)	NAD83 Colorado State Planes, North Zone, US Foot	CO83-NF
NAD 1983 StatePlane Colorado South FIPS 0503	NAD83 Colorado State Planes, South Zone, Meter	CO83-S
NAD 1983 StatePlane Colorado South FIPS 0503 (Feet)	NAD83 Colorado State Planes, South Zone, US Foot	CO83-SF

USA, Connecticut

Coordinate Systems for USA, Connecticut

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Connecticut FIPS 0600	NAD27 Connecticut State Plane Zone, US Foot	CT
NAD 1983 StatePlane Connecticut FIPS 0600	NAD83 Connecticut State Plane Zone, Meter	CT83
NAD 1983 StatePlane Connecticut FIPS 0600 (Feet)	NAD83 Connecticut State Plane Zone, US Foot	CT83F

USA, Delaware

Coordinate Systems for USA, Delaware

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Delaware FIPS 0700	NAD27 Delaware State Planes, US Foot	DE
NAD 1983 StatePlane Delaware FIPS 0700	NAD83 Delaware State Planes, Meter	DE83
NAD 1983 StatePlane Delaware FIPS 0700 (Feet)	NAD83 Delaware State Planes, US Foot	DE83F

USA, Florida

Coordinate Systems for USA, Florida

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Florida East FIPS 0901	NAD27 Florida State Planes, East Zone, US Foot	FL-E
NAD 1927 StatePlane Florida North FIPS 0903	NAD27 Florida State Planes, North Zone, US Foot	FL-N
NAD 1927 StatePlane Florida West FIPS 0902	NAD27 Florida State Planes, West Zone, US Foot	FL-W
NAD 1983 StatePlane Florida East FIPS 0901	NAD83 Florida State Planes, East Zone, Meter	FL83-E
NAD 1983 StatePlane Florida North FIPS 0903	NAD83 Florida State Planes, North Zone, Meter	FL83-N
NAD 1983 StatePlane Florida West FIPS 0902	NAD83 Florida State Planes, West Zone, Meter	FL83-W

Coordinate Systems for USA, Florida (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane Florida North FIPS 0903 (Feet)	NAD83 Florida State Planes, North Zone, US Foot	FL83-NF
NAD 1983 StatePlane Florida East FIPS 0901 (Feet)	NAD83 Florida State Planes, East Zone, US Foot	FL83-EF
NAD 1983 StatePlane Florida West FIPS 0902 (Feet).	NAD83 Florida State Planes, West Zone, US Foot	FL83-WF

USA, Georgia

Coordinate Systems for USA, Georgia

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Georgia East FIPS 1001	NAD27 Georgia State Planes, East Zone, US Foot	GA-E
NAD 1927 StatePlane Georgia West FIPS 1002	NAD27 Georgia State Planes, West Zone, US Foot	GA-W
NAD 1983 StatePlane Georgia East FIPS 1001	NAD83 Georgia State Planes, East Zone, Meter	GA83-E
NAD 1983 StatePlane Georgia West FIPS 1002	NAD83 Georgia State Planes, West Zone, Meter	GA83-W
NAD 1983 StatePlane Georgia East FIPS 1001 (Feet)	NAD83 Georgia State Planes, East Zone, US Foot	GA83-EF
NAD 1983 StatePlane Georgia West FIPS 1002 (Feet)	NAD83 Georgia State Planes, West Zone, US Foot	GA83-WF

USA, Hawaii

Coordinate Systems for USA, Hawaii

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Hawaii 1 FIPS 5101 Old Hawaiian StatePlane Hawaii 1 FIPS 5101	NAD27 Hawaii State Planes, Zone 1, US Foot	HI-1
NAD 1927 StatePlane Hawaii 2 FIPS 5102 Old Hawaiian StatePlane Hawaii 2 FIPS 5102	NAD27 Hawaii State Planes, Zone 2, US Foot	HI-2
NAD 1927 StatePlane Hawaii 3 FIPS 5103 Old Hawaiian StatePlane Hawaii 3 FIPS 5103	NAD27 Hawaii State Planes, Zone 3, US Foot	HI-3
NAD 1927 StatePlane Hawaii 4 FIPS 5104 Old Hawaiian StatePlane Hawaii 4 FIPS 5104	NAD27 Hawaii State Planes, Zone 4, US Foot	HI-4
NAD 1927 StatePlane Hawaii 5 FIPS 5105 Old Hawaiian StatePlane Hawaii 5 FIPS 5105	NAD27 Hawaii State Planes, Zone 5, US Foot	HI-5
NAD 1983 StatePlane Hawaii 1 FIPS 5101	NAD83 Hawaii State Planes, Zone 1, Meter	HI83-1
NAD 1983 StatePlane Hawaii 1 FIPS 5101 (Feet)	NAD83 Hawaii State Planes, Zone 1, US Foot	HI83-1F
NAD 1983 StatePlane Hawaii 2 FIPS 5102	NAD83 Hawaii State Planes, Zone 2, Meter	HI83-2
NAD 1983 StatePlane Hawaii 2 FIPS 5102 (Feet)	NAD83 Hawaii State Planes, Zone 2, US Foot	HI83-2F

Coordinate Systems for USA, Hawaii (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane Hawaii 3 FIPS 5103	NAD83 Hawaii State Planes, Zone 3, Meter	HI83-3
NAD 1983 StatePlane Hawaii 3 FIPS 5103 (Feet)	NAD83 Hawaii State Planes, Zone 3, US Foot	HI83-3F
NAD 1983 StatePlane Hawaii 4 FIPS 5104	NAD83 Hawaii State Planes, Zone 4, Meter	HI83-4
NAD 1983 StatePlane Hawaii 4 FIPS 5104 (Feet)	NAD83 Hawaii State Planes, Zone 4, US Foot	HI83-4F
NAD 1983 StatePlane Hawaii 5 FIPS 5105	NAD83 Hawaii State Planes, Zone 5, Meter	HI83-5
NAD 1983 StatePlane Hawaii 5 FIPS 5105 (Feet)	NAD83 Hawaii State Planes, Zone 5, US Foot	HI83-5F

USA, Idaho

Coordinate Systems for USA, Idaho

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Idaho Central FIPS 1102	NAD27 Idaho State Planes, Central Zone, US Foot	ID-C
NAD 1927 StatePlane Idaho East FIPS 1101	NAD27 Idaho State Planes, East Zone, US Foot	ID-E
NAD 1927 StatePlane Idaho West FIPS 1103	NAD27 Idaho State Planes, West Zone, US Foot	ID-W
NAD 1983 StatePlane Idaho Central FIPS 1102	NAD83 Idaho State Planes, Central Zone, Meter	ID83-C
NAD 1983 StatePlane Idaho Central FIPS 1102 (Feet)	NAD83 Idaho State Planes, Central Zone, US Foot	ID83-CF

Coordinate Systems for USA, Idaho (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane Idaho East FIPS 1101	NAD83 Idaho State Planes, East Zone, Meter	ID83-E
NAD 1983 StatePlane Idaho East FIPS 1101 (Feet)	NAD83 Idaho State Planes, East Zone, US Foot	ID83-EF
NAD 1983 StatePlane Idaho West FIPS 1103	NAD83 Idaho State Planes, West Zone, Meter	ID83-W
NAD 1983 StatePlane Idaho West FIPS 1103 (Feet)	NAD83 Idaho State Planes, West Zone, US Foot	ID83-WF

USA, Illinois

Coordinate Systems for USA, Illinois

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Illinois East FIPS 1201	NAD27 Illinois State Planes, East Zone, US Foot	IL-E
NAD 1927 StatePlane Illinois West FIPS 1202	NAD27 Illinois State Planes, West Zone, US Foot	IL-W
NAD 1983 StatePlane Illinois East FIPS 1201	NAD83 Illinois State Planes, East Zone, Meter	IL83-E
NAD 1983 StatePlane Illinois East FIPS 1201 (Feet)	NAD83 Illinois State Planes, East Zone, US Foot	IL83-EF
NAD 1983 StatePlane Illinois West FIPS 1202	NAD83 Illinois State Planes, West Zone, Meter	IL83-W
NAD 1983 StatePlane Illinois West FIPS 1202 (Feet)	NAD83 Illinois State Planes, West Zone, US Foot	IL83-WF

USA, Indiana

Coordinate Systems for USA, Indiana

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Indiana East FIPS 1301	NAD27 Indiana State Planes, East Zone, US Foot	IN-E
NAD 1927 StatePlane Indiana West FIPS 1302	NAD27 Indiana State Planes, West Zone, US Foot	IN-W
NAD 1983 StatePlane Indiana East FIPS 1301	NAD83 Indiana State Planes, East Zone, Meter	IN83-E
NAD 1983 StatePlane Indiana East FIPS 1301 (Feet)	NAD83 Indiana State Planes, East Zone, US Foot	IN83-EF
NAD 1983 StatePlane Indiana West FIPS 1302	NAD83 Indiana State Planes, West Zone, Meter	IN83-W
NAD 1983 StatePlane Indiana West FIPS 1302 (Feet)	NAD83 Indiana State Planes, West Zone, US Foot	IN83-WF

USA, Iowa

Coordinate Systems for USA, Iowa

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Iowa North FIPS 1401	NAD27 Iowa State Planes, North Zone, US Foot	IA-N
NAD 1927 StatePlane Iowa South FIPS 1402	NAD27 Iowa State Planes, South Zone, US Foot	IA-S
NAD 1983 StatePlane Iowa North FIPS 1401	NAD83 Iowa State Planes, North Zone, Meter	IA83-N

Coordinate Systems for USA, Iowa (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane Iowa North FIPS 1401 (Feet)	NAD83 Iowa State Planes, North Zone, US Foot	IA83-NF
NAD 1983 StatePlane Iowa South FIPS 1402	NAD83 Iowa State Planes, South Zone, Meter	IA83-S
NAD 1983 StatePlane Iowa South FIPS 1402 (Feet)	NAD83 Iowa State Planes, South Zone, US Foot	IA83-SF

USA, Kansas

Coordinate Systems for USA, Kansas

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Kansas North FIPS 1501	NAD27 Kansas State Planes, North Zone, US Foot	KS-N
NAD 1927 StatePlane Kansas South FIPS 1502	NAD27 Kansas State Planes, South Zone, US Foot	KS-S
NAD 1983 StatePlane Kansas North FIPS 1501	NAD83 Kansas State Planes, North Zone, Meter	KS83-N
NAD 1983 StatePlane Kansas North FIPS 1501 (Feet)	NAD83 Kansas State Planes, North Zone, US Foot	KS83-NF
NAD 1983 StatePlane Kansas South FIPS 1502	NAD83 Kansas State Planes, South Zone, Meter	KS83-S
NAD 1983 StatePlane Kansas South FIPS 1502 (Feet)	NAD83 Kansas State Planes, South Zone, US Foot	KS83-SF

USA, Kentucky

Coordinate Systems for USA, Kentucky

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Kentucky North FIPS 1601	NAD27 Kentucky State Planes, North Zone, US Foot	KY-N
NAD 1927 StatePlane Kentucky South FIPS 1602	NAD27 Kentucky State Planes, South Zone, US Foot	KY-S
NAD 1983 StatePlane Kentucky North FIPS 1601	NAD83 Kentucky State Planes, North Zone, Meter	KY83-N
NAD 1983 StatePlane Kentucky North FIPS 1601 (Feet)	NAD83 Kentucky State Planes, North Zone, US Foot	KY83-NF
NAD 1983 StatePlane Kentucky South FIPS 1602	NAD83 Kentucky State Planes, South Zone, Meter	KY83-S
NAD 1983 StatePlane Kentucky South FIPS 1602 (Feet)	NAD83 Kentucky State Planes, South Zone, US Foot	KY83-SF

USA, Louisiana

Coordinate Systems for USA, Louisiana

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Louisiana North FIPS 1701	NAD27 Louisiana State Planes, North Zone, US Foot	LA-N
NAD 1927 StatePlane Louisiana South FIPS 1702	NAD27 Louisiana State Planes, South Zone, US Foot	LA-S
NAD 1983 StatePlane Louisiana North FIPS 1701	NAD83 Louisiana State Planes, North Zone, Meter	LA83-N

Coordinate Systems for USA, Louisiana (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane Louisiana North FIPS 1701 (Feet)	NAD83 Louisiana State Planes, North Zone, US Foot	LA83-NF
NAD 1983 StatePlane Louisiana South FIPS 1702	NAD83 Louisiana State Planes, South Zone, Meter	LA83-S
NAD 1983 StatePlane Louisiana South FIPS 1702 (Feet)	NAD83 Louisiana State Planes, South Zone, US Foot	LA83-SF

USA, Maine

Coordinate Systems for USA, Maine

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Maine East FIPS 1801	NAD27 Maine State Planes, East Zone, US Foot	ME-E
NAD 1927 StatePlane Maine West FIPS 1802	NAD27 Maine State Planes, West Zone, US Foot	ME-W
NAD 1983 StatePlane Maine East FIPS 1801	NAD83 Maine State Planes, East Zone, Meter	ME83-E
NAD 1983 StatePlane Maine East FIPS 1801 (Feet)	NAD83 Maine State Planes, East Zone, US Foot	ME83-EF
NAD 1983 StatePlane Maine West FIPS 1802	NAD83 Maine State Planes, West Zone, Meter	ME83-W
NAD 1983 StatePlane Maine West FIPS 1802 (Feet)	NAD83 Maine State Planes, West Zone, US Foot	ME83-WF

USA, Maryland

Coordinate Systems for USA, Maryland

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Maryland FIPS 1900	NAD27 Maryland State Plane Zone, US Foot	MD
NAD 1983 StatePlane Maryland FIPS 1900	NAD83 Maryland State Plane Zone, Meter	MD83
NAD 1983 StatePlane Maryland FIPS 1900 (Feet)	NAD83 Maryland State Plane Zone, US Foot	MD83F

USA, Massachusetts

Coordinate Systems for USA, Massachusetts

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Massachusetts Mainland FIPS 2001	NAD27 Massachusetts State Planes, Mainland Zone, US Foot	MA
NAD 1927 StatePlane Massachusetts Island FIPS 2002	Possible match to NAD27 Massachusetts State Planes, Island Zone, US Foot	MA-IS
NAD 1983 StatePlane Massachusetts Island FIPS 2002	NAD83 Massachusetts State Planes, Island Zone, Meter	MA83-IS
NAD 1983 StatePlane Massachusetts Island FIPS 2002 (Feet)	NAD83 Massachusetts State Planes, Island Zone, US Foot	MA83-ISF
NAD 1983 StatePlane Massachusetts Mainland FIPS 2001	NAD83 Massachusetts State Planes, Mainland Zone, Meter	MA83
NAD 1983 StatePlane Massachusetts Mainland FIPS 2001 (Feet)	NAD83 Massachusetts State Planes, Mainland Zone, US	MA83F

USA, Michigan

Coordinate Systems for USA, Michigan

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Michigan Central FIPS 2112	NAD27 Michigan State Planes, Central Zone, US Foot	MI-C
NAD 1927 StatePlane Michigan North FIPS 2111	NAD27 Michigan State Planes, North Zone, US Foot	MI-N
NAD 1927 StatePlane Michigan South FIPS 2113	NAD27 Michigan State Planes, South Zone, US Foot	MI-S
NAD Michigan StatePlane Michigan West Old FIPS 2103	Old Michigan SPCS, West Zone, Elevated Ellipsoid, US Foot	MI-OW
NAD Michigan StatePlane Michigan Central Old FIPS 2102	Old Michigan SPCS, Central Zone, Elevated Ellipsoid, US Foot	MI-OC
NAD Michigan StatePlane Michigan East Old FIPS 2101	Old Michigan SPCS, East Zone, Elevated Ellipsoid, US Foot	MI-OE
NAD Michigan StatePlane Michigan North FIPS 2111	None	None
NAD 1983 StatePlane Michigan North FIPS 2111 (Feet)	NAD83 Michigan State Planes, North Zone, US Foot	MI83-NF
NAD Michigan StatePlane Michigan Central FIPS 2112	None	None
NAD Michigan StatePlane Michigan South FIPS 2113	None	None
NAD 1983 StatePlane Michigan Central FIPS 2202	NAD83 Michigan State Planes, Central Zone, Meter	MI83-C
NAD 1983 StatePlane Michigan Central FIPS 2202 (Feet)	NAD83 Michigan State Planes, Central Zone, US Foot	MI83-CF

Coordinate Systems for USA, Michigan (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane Michigan North FIPS 2111	NAD83 Michigan State Planes, North Zone, Meter	MI83-N
NAD 1983 StatePlane Michigan South FIPS 2113	NAD83 Michigan State Planes, South Zone, Meter	MI83-S
NAD 1983 StatePlane Michigan South FIPS 2113 (Feet)	NAD83 Michigan State Planes, South Zone, US Foot	MI83-SF

USA, Minnesota

Coordinate Systems for USA, Minnesota

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Minnesota North FIPS 2201	NAD27 Minnesota State Planes, North Zone, US Foot	MN-N
NAD 1927 StatePlane Minnesota Central FIPS 2202	NAD27 Minnesota State Planes, Central Zone, US Foot	MN-C
NAD 1927 StatePlane Minnesota South FIPS 2203	NAD27 Minnesota State Planes, South, US Foot	MN-S
NAD 1983 StatePlane Minnesota North FIPS 2201	NAD83 Minnesota State Planes, North Zone, Meter	MN83-N
NAD 1983 StatePlane Minnesota North FIPS 2201 (Feet)	NAD83 Minnesota State Planes, North Zone, US Foot	MN83-NF
NAD 1983 StatePlane Minnesota Central FIPS 2202	NAD83 Minnesota State Planes, Central Zone, Meter	MN83-C

Coordinate Systems for USA, Minnesota (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane Minnesota Central FIPS 2202 (Feet)	NAD83 Minnesota State Planes, Central Zone, US Foot	MN83-CF
NAD 1983 StatePlane Minnesota South FIPS 2203	NAD83 Minnesota State Planes, South Zone, Meter	MN83-S
NAD 1983 StatePlane Minnesota South FIPS 2203 (Feet)	NAD83 Minnesota State Planes, South Zone, US Foot	MN83-SF

USA, Mississippi

Coordinate Systems for USA, Mississippi

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Mississippi East FIPS 2301	NAD27 Mississippi State Planes, East Zone, US Foot, CORRECTED	MS-E
NAD 1927 StatePlane Mississippi West FIPS 2302	NAD27 Mississippi State Planes, West Zone, US Foot	MS-W
NAD 1983 StatePlane Mississippi East FIPS 2301	NAD83 Mississippi State Planes, East Zone, Meter	MS83-E
NAD 1983 StatePlane Mississippi East FIPS 2301 (Feet)	NAD83 Mississippi State Planes, East Zone, US Foot	MS83-EF
NAD 1983 StatePlane Mississippi West FIPS 2302	NAD83 Mississippi State Planes, West Zone, Meter	MS83-W
NAD 1983 StatePlane Mississippi West FIPS 2302 (Feet)	NAD83 Mississippi State Planes, West Zone, US Foot	MS83-WF

USA, Missouri

Coordinate Systems for USA, Missouri

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Missouri Central FIPS 2402	NAD27 Missouri State Planes, Central Zone, US Foot	MO-C
NAD 1927 StatePlane Missouri East FIPS 2401	NAD27 Missouri State Planes, East Zone, US Foot	MO-E
NAD 1927 StatePlane Missouri West FIPS 2403	NAD27 Missouri State Planes, West Zone, US Foot	MO-W
NAD 1983 StatePlane Missouri Central FIPS 2402	NAD83 Missouri State Planes, Central Zone, Meter	MO83-C
NAD 1983 StatePlane Missouri Central FIPS 2402 (Feet)	NAD83 Missouri State Planes, Central Zone, US Foot	MO83-CF
NAD 1983 StatePlane Missouri East FIPS 2401	NAD83 Missouri State Planes, East Zone, Meter	MO83-E
NAD 1983 StatePlane Missouri East FIPS 2401 (Feet)	NAD83 Missouri State Planes, East Zone, US Foot	MO83-EF
NAD 1983 StatePlane Missouri West FIPS 2403	NAD83 Missouri State Planes, West Zone, Meter	MO83-W
NAD 1983 StatePlane Missouri West FIPS 2403 (Feet)	NAD83 Missouri State Planes, West Zone, US Foot	MO83-WF

USA, Montana

Coordinate Systems for USA, Montana

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Montana Central FIPS 2502	NAD27 Montana State Planes, Central Zone, US Foot	MT-C
NAD 1927 StatePlane Montana North FIPS 2501	NAD27 Montana State Planes, North Zone, US Foot	MT-N
NAD 1927 StatePlane Montana South FIPS 2503	NAD27 Montana State Planes, South Zone, US Foot	MT-S
NAD 1983 StatePlane Montana FIPS 2500	NAD83 Montana State Plane Zone, Meter	MT83
NAD 1983 StatePlane Montana FIPS 2500 (Feet)	NAD83 Montana State Plane Zone, US Foot	MT83F

USA, Nebraska

Coordinate Systems for USA, Nebraska

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Nebraska North FIPS 2601	NAD27 Nebraska State Planes, North Zone, US Foot	NE-N
NAD 1927 StatePlane Nebraska South FIPS 2602	NAD27 Nebraska State Planes, South Zone, US Foot	NE-S
NAD 1983 StatePlane Nebraska FIPS 2600	NAD83 Nebraska State Planes, Meter	NE83
NAD 1983 StatePlane Nebraska FIPS 2600 (Feet)	NAD83 Nebraska State Planes, US Foot	NE83F

USA, Nevada

Coordinate Systems for USA, Nevada

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Nevada Central FIPS 2702	NAD27 Nevada State Planes, Central Zone, US Foot	NV-C
NAD 1927 StatePlane Nevada East FIPS 2701	NAD27 Nevada State Planes, East Zone, US Foot	NV-E
NAD 1927 StatePlane Nevada West FIPS 2703	NAD27 Nevada State Planes, West Zone, US Foot	NV-W
NAD 1983 StatePlane Nevada Central FIPS 2702	NAD83 Nevada State Planes, Central Zone, Meter	NV83-C
NAD 1983 StatePlane Nevada Central FIPS 2702 (Feet)	NAD83 Nevada State Planes, Central Zone, US Foot	NV83-CF
NAD 1983 StatePlane Nevada East FIPS 2701	NAD83 Nevada State Planes, East Zone, Meter	NV83-E
NAD 1983 StatePlane Nevada East FIPS 2701 (Feet)	NAD83 Nevada State Planes, East Zone, US Foot	NV83-EF
NAD 1983 StatePlane Nevada West FIPS 2703	NAD83 Nevada State Planes, West Zone, Meter	NV83-W
NAD 1983 StatePlane Nevada West FIPS 2703 (Feet)	NAD83 Nevada State Planes, West Zone, US Foot	NV83-WF

USA, New Hampshire

Coordinate Systems for USA, New Hampshire

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane New Hampshire FIPS 2800	NAD27 New Hampshire State Planes, US Foot	NH
NAD 1983 StatePlane New Hampshire FIPS 2800	NAD83 New Hampshire State Planes, Meter	NH83
NAD 1983 StatePlane New Hampshire FIPS 2800 (Feet)	NAD83 New Hampshire State Planes, US Foot	NH83F

USA, New Jersey

Coordinate Systems for USA, New Jersey

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane New Jersey FIPS 2900	NAD27 New Jersey State Planes, US Foot	NJ
NAD 1983 StatePlane New Jersey FIPS 2900	NAD83 New Jersey State Planes, Meter	NJ83
NAD 1983 StatePlane New Jersey FIPS 2900 (Feet)	NAD83 New Jersey State Planes, US Foot	NJ83F

USA, New Mexico

Coordinate Systems for USA, New Mexico

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane New Mexico Central FIPS 3002	NAD27 New Mexico State Planes, Central Zone, US Foot	NM-C
NAD 1927 StatePlane New Mexico East FIPS 3001	NAD27 New Mexico State Planes, East Zone, US Foot	NM-E
NAD 1927 StatePlane New Mexico West FIPS 3003	NAD27 New Mexico State Planes, West Zone, US Foot	NM-W
NAD 1983 StatePlane New Mexico Central FIPS 3002	NAD83 New Mexico State Planes, Central Zone, Meter	NM83-C
NAD 1983 StatePlane New Mexico Central FIPS 3002 (Feet)	NAD83 New Mexico State Planes, Central Zone, US Foot	NM83-CF
NAD 1983 StatePlane New Mexico East FIPS 3001	NAD83 New Mexico State Planes, East Zone, Meter	NM83-E
NAD 1983 StatePlane New Mexico East FIPS 3001 (Feet)	NAD83 New Mexico State Planes, East Zone, US Foot	NM83-EF
NAD 1983 StatePlane New Mexico West FIPS 3003	NAD83 New Mexico State Planes, West Zone, Meter	NM83-W
NAD 1983 StatePlane New Mexico West FIPS 3003 (Feet)	NAD83 New Mexico State Planes, West Zone, US Foot	NM83-WF

USA, New York

Coordinate Systems for USA, New York

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane New York Central FIPS 3102	NAD27 New York State Planes, Central Zone, US Foot	NY-C
NAD 1927 StatePlane New York East FIPS 3101	NAD27 New York State Planes, East Zone, US Foot	NY-E
NAD 1927 StatePlane New York Long Island FIPS 3104	NAD27 New York State Planes, Long Island, US Foot	NY-LI
NAD 1927 StatePlane New York West FIPS 3103	NAD27 New York State Planes, West Zone, US Foot	NY-W
NAD 1983 StatePlane New York East FIPS 3101	NAD83 New York State Planes, East Zone, Meter	NY83-E
NAD 1983 StatePlane New York East FIPS 3101 (Feet)	NAD83 New York State Planes, East Zone, US Foot	NY83-EF
NAD 1983 StatePlane New York Central FIPS 3102	NAD83 New York State Planes, Central Zone, Meter	NY83-C
NAD 1983 StatePlane New York Central FIPS 3102 (Feet)	NAD83 New York State Planes, Central Zone, Meter	NY83-C
NAD 1983 StatePlane New York Long Island FIPS 3104	NAD83 New York State Planes, Long Island, Meter	NY83-LI
NAD 1983 StatePlane New York Long Island FIPS 3104 (Feet)	NAD83 New York State Planes, Long Island, US Foot	NY83-LIF
NAD 1983 StatePlane New York West FIPS 3103	NAD83 New York State Planes, West Zone, Meter	NY83-W
NAD 1983 StatePlane New York West FIPS 3103 (Feet)	NAD83 New York State Planes, West Zone, US Foot	NY83-WF

USA, North Carolina

Coordinate Systems for USA, North Carolina

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane North Carolina FIPS 3200	NAD27 North Carolina State Planes, US Foot	NC
NAD 1983 StatePlane North Carolina FIPS 3200 (Feet)	NAD83 North Carolina State Planes, US Foot	NC83F
NAD 1983 StatePlane North Carolina FIPS 3200	NAD83 North Carolina State Planes, Meter	NC83

USA, North Dakota

Coordinate Systems for USA, North Dakota

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane North Dakota North FIPS 3301	NAD27 North Dakota State Planes, North Zone, US Foot	ND-N
NAD 1927 StatePlane North Dakota South FIPS 3302	NAD27 North Dakota State Planes, South Zone, US Foot	ND-S
NAD 1983 StatePlane North Dakota North FIPS 3301	NAD83 North Dakota State Planes, North Zone, Meter	ND83-N
NAD 1983 StatePlane North Dakota North FIPS 3301 (Feet)	NAD83 North Dakota State Planes, North Zone, US Foot	ND83-NF
NAD 1983 StatePlane North Dakota South FIPS 3302	NAD83 North Dakota State Planes, South Zone, Meter	ND83-S
NAD 1983 StatePlane North Dakota South FIPS 3302 (Feet)	NAD83 North Dakota State Planes, South Zone, US Foot	ND83-SF

USA, Ohio

Coordinate Systems for USA, Ohio

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Ohio North FIPS 3401	NAD27 Ohio State Planes, North Zone, US Foot	OH-N
NAD 1927 StatePlane Ohio South FIPS 3402	NAD27 Ohio State Planes, South Zone, US Foot	OH-S
NAD 1983 StatePlane Ohio North FIPS 3401	NAD83 Ohio State Planes, North Zone, Meter	OH83-N
NAD 1983 StatePlane Ohio North FIPS 3401 (Feet)	NAD83 Ohio State Planes, North Zone, US Foot	OH83-NF
NAD 1983 StatePlane Ohio South FIPS 3402	NAD83 Ohio State Planes, South Zone, Meter	OH83-S
NAD 1983 StatePlane Ohio South FIPS 3402 (Feet)	NAD83 Ohio State Planes, South Zone, US Foot	OH83-SF

USA, Oklahoma

Coordinate Systems for USA, Oklahoma

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Oklahoma North FIPS 3501	NAD27 Oklahoma State Planes, North Zone, US Foot	OK-N
NAD 1927 StatePlane Oklahoma South FIPS 3502	NAD27 Oklahoma State Planes, South Zone, US Foot	OK-S
NAD 1983 StatePlane Oklahoma North FIPS 3501	NAD83 Oklahoma State Planes, North Zone, Meter	OK83-N

Coordinate Systems for USA, Oklahoma (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane Oklahoma North FIPS 3501 (Feet)	NAD83 Oklahoma State Planes, North Zone, US Foot	OK83-NF
NAD 1983 StatePlane Oklahoma South FIPS 3502	NAD83 Oklahoma State Planes, South Zone, Meter	OK83-S
NAD 1983 StatePlane Oklahoma South FIPS 3502 (Feet)	NAD83 Oklahoma State Planes, South Zone, US Foot	OK83-SF

USA, Oregon

Coordinate Systems for USA, Oregon

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Oregon North FIPS 3601	NAD27 Oregon State Planes (Polyconic), North Zone, US Foot	OR-N
NAD 1927 StatePlane Oregon South FIPS 3602	NAD27 Oregon State Planes (Polyconic), South Zone, US Foot	OR-S
NAD 1983 StatePlane Oregon North FIPS 3601	NAD83 Oregon State Planes (Polyconic), North Zone, Meter	OR83-N
NAD 1983 StatePlane Oregon North FIPS 3601 (Feet)	NAD83 Oregon State Planes (Polyconic), North Zone, US Foot	OR83-NF
NAD 1983 StatePlane Oregon South FIPS 3602	NAD83 Oregon State Planes (Polyconic), South Zone, Meter	OR83-S
NAD 1983 StatePlane Oregon South FIPS 3602 (Feet)	NAD83 Oregon State Planes (Polyconic), South Zone, US Foot	OR83-SF

USA, Pennsylvania

Coordinate Systems for USA, Pennsylvania

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Pennsylvania North FIPS 3701	NAD27 Pennsylvania State Planes, North Zone, US Foot	PA-N
NAD 1927 StatePlane Pennsylvania South FIPS 3702	NAD27 Pennsylvania State Planes, South Zone, US Foot	PA-S
NAD 1983 StatePlane Pennsylvania North FIPS 3701	NAD83 Pennsylvania State Planes, North Zone, Meter	PA83-N
NAD 1983 StatePlane Pennsylvania North FIPS 3701 (Feet)	NAD83 Pennsylvania State Planes, North Zone, US Foot	PA83-NF
NAD 1983 StatePlane Pennsylvania South FIPS 3702	NAD83 Pennsylvania State Planes, South Zone, Meter	PA83-S
NAD 1983 StatePlane Pennsylvania South FIPS 3702 (Feet)	NAD83 Pennsylvania State Planes, South Zone, US Foot	PA83-SF

USA, Rhode Island

Coordinate Systems for USA, Rhode Island

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Rhode Island FIPS 3800	NAD27 Rhode Island State Planes, US Foot	RI
NAD 1983 StatePlane Rhode Island FIPS 3800	NAD83 Rhode Island State Planes, Meter	RI83
NAD 1983 StatePlane Rhode Island FIPS 3800 (Feet)	NAD83 Rhode Island State Planes, US Foot	RI83F

USA, South Carolina

Coordinate Systems for USA, South Carolina

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane South Carolina North FIPS 3901	NAD27 South Carolina State Planes, North Zone, US Foot	SC-N
NAD 1927 StatePlane South Carolina South FIPS 3902	NAD27 South Carolina State Planes, South Zone, US Foot	SC-S
NAD 1983 StatePlane South Carolina FIPS 3900	NAD83 South Carolina State Planes, Meter	SC83
NAD 1983 StatePlane South Carolina FIPS 3900 (Feet)	NAD83 South Carolina State Planes, US Foot	SC83F

USA, South Dakota

Coordinate Systems for USA, South Dakota

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane South Dakota North FIPS 4001	NAD27 South Dakota State Planes, North Zone, US Foot	SD-N
NAD 1927 StatePlane South Dakota South FIPS 4002	NAD27 South Dakota State Planes, South Zone, US Foot	SD-S
NAD 1983 StatePlane South Dakota North FIPS 4001	NAD83 South Dakota State Planes, North Zone, Meter	SD83-N
NAD 1983 StatePlane South Dakota North FIPS 4001 (Feet)	NAD83 South Dakota State Planes, North Zone, US Foot	SD83-NF
NAD 1983 StatePlane South Dakota South FIPS 4002	NAD83 South Dakota State Planes, South Zone, Meter	SD83-S
NAD 1983 StatePlane South Dakota South FIPS 4002 (Feet)	NAD83 South Dakota State Planes, South Zone, US Foot	SD83-SF

USA, Tennessee

Coordinate Systems for USA, Tennessee

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Tennessee FIPS 4100	NAD27 Tennessee State Plane Zone, US Foot	TN
NAD 1983 StatePlane Tennessee FIPS 4100	NAD83 Tennessee State Plane Zone, Meter	TN83
NAD 1983 StatePlane Tennessee FIPS 4100 (Feet)	NAD83 Tennessee State Plane Zone, US Foot	TN83F

USA, Texas

Coordinate Systems for USA, Texas

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Texas Central FIPS 4203	NAD27 Texas State Planes, Central Zone, US Foot	TX-C
NAD 1927 StatePlane Texas North Central FIPS 4202	NAD27 Texas State Planes, North Central Zone, US Foot	TX-NC
NAD 1927 StatePlane Texas North FIPS 4201	NAD27 Texas State Planes, North Zone, US Foot	TX-N
NAD 1927 StatePlane Texas South Central FIPS 4204	NAD27 Texas State Planes, South Central Zone, US Foot	TX-SC
NAD 1927 StatePlane Texas South FIPS 4205	NAD27 Texas State Planes, South Zone, US Foot	TX-S
NAD 1983 StatePlane Texas Central FIPS 4203	NAD83 Texas State Planes, Central Zone, Meter	TX83-C
NAD 1983 StatePlane Texas Central FIPS 4203 (Feet)	NAD83 Texas State Planes, Central Zone, US Foot	TX83-CF

Coordinate Systems for USA, Texas (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane Texas North Central FIPS 4202	NAD83 Texas State Planes, North Central Zone, Meter	TX83-NC
NAD 1983 StatePlane Texas North Central FIPS 4202 (Feet)	NAD83 Texas State Planes, North Central Zone, US Foot	TX83-NCF
NAD 1983 StatePlane Texas North FIPS 4201	NAD83 Texas State Planes, North Zone, Meter	TX83-N
NAD 1983 StatePlane Texas South Central FIPS 4204	NAD83 Texas State Planes, South Central Zone, Meter	TX83-SC
NAD 1983 StatePlane Texas South Central FIPS 4204 (Feet)	NAD83 Texas State Planes, South Central Zone, US Foot	TX83-SCF
NAD 1983 StatePlane Texas South FIPS 4205	NAD83 Texas State Planes, South Zone, Meter	TX83-S
NAD 1983 StatePlane Texas South FIPS 4205 (Feet)	NAD83 Texas State Planes, South Zone, US Foot	TX83-SF

USA, Utah

Coordinate Systems for USA, Utah

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Utah Central FIPS 4302	NAD27 Utah State Planes, Central Zone, US Foot	UT-C
NAD 1927 StatePlane Utah North FIPS 4301	NAD27 Utah State Planes, North Zone, US Foot	UT-N
NAD 1927 StatePlane Utah South FIPS 4303	NAD27 Utah State Planes, South Zone, US Foot	UT-S
NAD 1983 StatePlane Utah Central FIPS 4302	NAD83 Utah State Planes, Central Zone, Meter	UT83-C

Coordinate Systems for USA, Utah (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane Utah Central FIPS 4302 (Feet)	NAD83 Utah State Planes, Central Zone, US Foot	UT83-CF
NAD 1983 StatePlane Utah North FIPS 4301	NAD83 Utah State Planes, North Zone, Meter	UT83-N
NAD 1983 StatePlane Utah North FIPS 4301 (Feet)	NAD83 Utah State Planes, North Zone, US Foot	UT83-NF
NAD 1983 StatePlane Utah South FIPS 4303	NAD83 Utah State Planes, South Zone, Meter	UT83-S
NAD 1983 StatePlane Utah South FIPS 4303 (Feet)	NAD83 Utah State Planes, South Zone, US Foot	UT83-SF

USA, Vermont

Coordinate Systems for USA, Vermont

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Vermont FIPS 3400	NAD27 Vermont State Planes, US Foot	VT
NAD 1983 StatePlane Vermont FIPS 4400	NAD83 Vermont State Planes, Meter	VT83
NAD 1983 StatePlane Vermont FIPS 4400 (Feet)	NAD83 Vermont State Planes, US Foot	VT83F

USA, Virginia

Coordinate Systems for USA, Virginia

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Virginia North FIPS 4501	NAD27 Virginia State Planes, North Zone, US Foot	VA-N
NAD 1927 StatePlane Virginia South FIPS 4502	NAD27 Virginia State Planes, South Zone, US Foot	VA-S
NAD 1983 StatePlane Virginia North FIPS 4501	NAD83 Virginia State Planes, North Zone, Meter	VA83-N
NAD 1983 StatePlane Virginia North FIPS 4501 (Feet)	NAD83 Virginia State Planes, North Zone, US Foot	VA83-NF
NAD 1983 StatePlane Virginia South FIPS 4502	NAD83 Virginia State Planes, South Zone, Meter	VA83-S
NAD 1983 StatePlane Virginia South FIPS 4502 (Feet)	NAD83 Virginia State Planes, South Zone, US Foot	VA83-SF

USA, Washington

Coordinate Systems for USA, Washington

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Washington North FIPS 4601	NAD27 Washington State Planes, North Zone, US Foot	WA-N
NAD 1927 StatePlane Washington South FIPS 4602	NAD27 Washington State Planes, South Zone, US Foot	WA-S
NAD 1983 StatePlane Washington North FIPS 4601	NAD83 Washington State Planes, North Zone, Meter	WA83-N

Coordinate Systems for USA, Washington (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1983 StatePlane Washington North FIPS 4601 (Feet)	NAD83 Washington State Planes, North Zone, US Foot	WA83-NF
NAD 1983 StatePlane Washington South FIPS 4602	NAD83 Washington State Planes, South Zone, Meter	WA83-S
NAD 1983 StatePlane Washington South FIPS 4602 (Feet)	NAD83 Washington State Planes, South Zone, US Foot	WA83-SF

USA, West Virginia

Coordinate Systems for USA, West Virginia

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane West Virginia North FIPS 4701	NAD27 West Virginia State Planes, North Zone, US Foot	WV-N
NAD 1927 StatePlane West Virginia South FIPS 4702	NAD27 West Virginia State Planes, South Zone, US Foot	WV-S
NAD 1983 StatePlane West Virginia North FIPS 4701	NAD83 West Virginia State Planes, North Zone, Meter	WV83-N
NAD 1983 StatePlane West Virginia North FIPS 4701 (Feet)	NAD83 West Virginia State Planes, North Zone, US Foot	WV83-NF
NAD 1983 StatePlane West Virginia South FIPS 4702	NAD83 West Virginia State Planes, South Zone, Meter	WV83-S
NAD 1983 StatePlane West Virginia South FIPS 4702 (Feet)	NAD83 West Virginia State Planes, South Zone, US Foot	WV83-SF

USA, Wisconsin

Coordinate Systems for USA, Wisconsin

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Wisconsin Central FIPS 4802	NAD27 Wisconsin State Planes, Central Zone, US Foot	WI-C
NAD 1927 StatePlane Wisconsin North FIPS 4801	NAD27 Wisconsin State Planes, North Zone, US Foot	WI-N
NAD 1927 StatePlane Wisconsin South FIPS 4803	NAD27 Wisconsin State Planes, South Zone, US Foot	WI-S
NAD 1983 StatePlane Wisconsin Central FIPS 4802	NAD83 Wisconsin State Planes, Central Zone, Meter	WI83-C
NAD 1983 StatePlane Wisconsin Central FIPS 4802 (Feet)	NAD83 Wisconsin State Planes, Central Zone, US Foot	WI83-CF
NAD 1983 StatePlane Wisconsin North FIPS 4801	NAD83 Wisconsin State Planes, North Zone, Meter	WI83-N
NAD 1983 StatePlane Wisconsin North FIPS 4801 (Feet)	NAD83 Wisconsin State Planes, North Zone, US Foot	WI83-NF
NAD 1983 StatePlane Wisconsin South FIPS 4803	NAD83 Wisconsin State Planes, South Zone, Meter	WI83-S
NAD 1983 StatePlane Wisconsin South FIPS 4803 (Feet)	NAD83 Wisconsin State Planes, South Zone, US Foot	WI83-SF

USA, Wyoming

Coordinate Systems for USA, Wyoming

SHP Coordinate System	MWF Coordinate System	CS Code
NAD 1927 StatePlane Wyoming East Central FIPS 4902	NAD27 Wyoming State Planes, East Central Zone, US Foot	WY-EC
NAD 1927 StatePlane Wyoming East FIPS 4901	NAD27 Wyoming State Planes, East Zone, US Foot	WY-E
NAD 1927 StatePlane Wyoming West Central FIPS 4903	NAD27 Wyoming State Planes, West Central Zone, US Foot	WY-WC
NAD 1927 StatePlane Wyoming West FIPS 4904	NAD27 Wyoming State Planes, West Zone, US Foot	WY-W
NAD 1983 StatePlane Wyoming East FIPS 4901 (Feet)	NAD83 Wyoming State Planes, East, US Foot	WY83-EF
NAD 1983 StatePlane Wyoming East FIPS 4901	NAD83 Wyoming State Planes, East, Meter	WY83-E
NAD 1983 StatePlane Wyoming East Central FIPS 4902	NAD83 Wyoming State Planes, East Central Zone, Meter	WY83-EC
NAD 1983 StatePlane Wyoming East Central FIPS 4902 (Feet)	NAD83 Wyoming State Planes, East Central Zone, US Foot	WY83-ECF
NAD 1983 StatePlane Wyoming West Central FIPS 4903	NAD83 Wyoming State Planes, West Central Zone, Meter	WY83-WC
NAD 1983 StatePlane Wyoming West Central FIPS 4903 (Feet)	NAD83 Wyoming State Planes, West Central Zone, US Foot	WY83-WCF
NAD 1983 StatePlane Wyoming West FIPS 4904	NAD83 Wyoming State Planes, West Zone, Meter	WY83-W
NAD 1983 StatePlane Wyoming West FIPS 4904 (Feet)	NAD83 Wyoming State Planes, West Zone, US Foot	WY83-WF

UTM WGS 1984

Coordinate Systems for UTM WGS 1984

SHP Coordinate System	MWF Coordinate System	CS Code
WGS 1984 UTM Zone 1N	WGS 1984, UTM Zone 1 North, Meter	UTM84-1N
WGS 1984 UTM Zone 1S	WGS 1984, UTM Zone 1 South, Meter	UTM84-1S
WGS 1984 UTM Zone 2N	WGS 1984, UTM Zone 2 North, Meter	UTM84-2N
WGS 1984 UTM Zone 2S	WGS 1984, UTM Zone 2 South, Meter	UTM84-2S
WGS 1984 UTM Zone 3N	WGS 1984, UTM Zone 3 North, Meter	UTM84-3N
WGS 1984 UTM Zone 3S	WGS 1984, UTM Zone 3 South, Meter	UTM84-3S
WGS 1984 UTM Zone 4N	WGS 1984, UTM Zone 4 North, Meter	UTM84-4N
WGS 1984 UTM Zone 4S	WGS 1984, UTM Zone 4 South, Meter	UTM84-4S
WGS 1984 UTM Zone 5N	WGS 1984, UTM Zone 5 North, Meter	UTM84-5N
WGS 1984 UTM Zone 5S	WGS 1984, UTM Zone 5 South, Meter	UTM84-5S
WGS 1984 UTM Zone 6N	WGS 1984, UTM Zone 6 North, Meter	UTM84-6N
WGS 1984 UTM Zone 6S	WGS 1984, UTM Zone 6 South, Meter	UTM84-6S
WGS 1984 UTM Zone 7N	WGS 1984, UTM Zone 7 North, Meter	UTM84-7N

Coordinate Systems for UTM WGS 1984 (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
WGS 1984 UTM Zone 7S	WGS 1984, UTM Zone 7 South, Meter	UTM84-7S
WGS 1984 UTM Zone 8N	WGS 1984, UTM Zone 8 North, Meter	UTM84-8N
WGS 1984 UTM Zone 8S	WGS 1984, UTM Zone 8 South, Meter	UTM84-8S
WGS 1984 UTM Zone 9N	WGS 1984, UTM Zone 9 North, Meter	UTM84-9N
WGS 1984 UTM Zone 9S	WGS 1984, UTM Zone 9 South, Meter	UTM84-9S
WGS 1984 UTM Zone 10N	WGS 1984, UTM Zone 10 North, Meter	UTM84-10N
WGS 1984 UTM Zone 10S	WGS 1984, UTM Zone 10 South, Meter	UTM84-10S
WGS 1984 UTM Zone 11N	WGS 1984, UTM Zone 11 North, Meter	UTM84-11N
WGS 1984 UTM Zone 11S	WGS 1984, UTM Zone 11 South, Meter	UTM84-11S
WGS 1984 UTM Zone 12N	WGS 1984, UTM Zone 12 North, Meter	UTM84-12N
WGS 1984 UTM Zone 12S	WGS 1984, UTM Zone 12 South, Meter	UTM84-12S
WGS 1984 UTM Zone 13N	WGS 1984, UTM Zone 13 North, Meter	UTM84-13N
WGS 1984 UTM Zone 13S	WGS 1984, UTM Zone 13 South, Meter	UTM84-13S
WGS 1984 UTM Zone 14N	WGS 1984, UTM Zone 14 North, Meter	UTM84-14N

Coordinate Systems for UTM WGS 1984 (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
WGS 1984 UTM Zone 14S	WGS 1984, UTM Zone 14 South, Meter	UTM84-14S
WGS 1984 UTM Zone 15N	WGS 1984, UTM Zone 15 North, Meter	UTM84-15N
WGS 1984 UTM Zone 15S	WGS 1984, UTM Zone 15 South, Meter	UTM84-15S
WGS 1984 UTM Zone 16N	WGS 1984, UTM Zone 16 North, Meter	UTM84-16N
WGS 1984 UTM Zone 16S	WGS 1984, UTM Zone 16 South, Meter	UTM84-16S
WGS 1984 UTM Zone 17N	WGS 1984, UTM Zone 17 North, Meter	UTM84-17N
WGS 1984 UTM Zone 17S	WGS 1984, UTM Zone 17 South, Meter	UTM84-17S
WGS 1984 UTM Zone 18N	WGS 1984, UTM Zone 18 North, Meter	UTM84-18N
WGS 1984 UTM Zone 18S	WGS 1984, UTM Zone 18 South, Meter	UTM84-18S
WGS 1984 UTM Zone 19N	WGS 1984, UTM Zone 19 North, Meter	UTM84-19N
WGS 1984 UTM Zone 19S	WGS 1984, UTM Zone 19 South, Meter	UTM84-19S
WGS 1984 UTM Zone 20N	WGS 1984, UTM Zone 20 North, Meter	UTM84-20N
WGS 1984 UTM Zone 20S	WGS 1984, UTM Zone 20 South, Meter	UTM84-20S
WGS 1984 UTM Zone 21N	WGS 1984, UTM Zone 21 North, Meter	UTM84-21N

Coordinate Systems for UTM WGS 1984 (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
WGS 1984 UTM Zone 21S	WGS 1984, UTM Zone 21 South, Meter	UTM84-21S
WGS 1984 UTM Zone 22N	WGS 1984, UTM Zone 22 North, Meter	UTM84-22N
WGS 1984 UTM Zone 22S	WGS 1984, UTM Zone 22 South, Meter	UTM84-22S
WGS 1984 UTM Zone 23N	WGS 1984, UTM Zone 23 North, Meter	UTM84-23N
WGS 1984 UTM Zone 23S	WGS 1984, UTM Zone 23 South, Meter	UTM84-23S
WGS 1984 UTM Zone 24N	WGS 1984, UTM Zone 24 North, Meter	UTM84-24N
WGS 1984 UTM Zone 24S	WGS 1984, UTM Zone 24 South, Meter	UTM84-24S
WGS 1984 UTM Zone 25N	WGS 1984, UTM Zone 25 North, Meter	UTM84-25N
WGS 1984 UTM Zone 25S	WGS 1984, UTM Zone 25 South, Meter	UTM84-25S
WGS 1984 UTM Zone 26N	WGS 1984, UTM Zone 26 North, Meter	UTM84-26N
WGS 1984 UTM Zone 26S	WGS 1984, UTM Zone 26 South, Meter	UTM84-26S
WGS 1984 UTM Zone 27N	WGS 1984, UTM Zone 27 North, Meter	UTM84-27N
WGS 1984 UTM Zone 27S	WGS 1984, UTM Zone 27 South, Meter	UTM84-27S
WGS 1984 UTM Zone 28N	WGS 1984, UTM Zone 28 North, Meter	UTM84-28N

Coordinate Systems for UTM WGS 1984 (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
WGS 1984 UTM Zone 28S	WGS 1984, UTM Zone 28 South, Meter	UTM84-28S
WGS 1984 UTM Zone 29N	WGS 1984, UTM Zone 29 North, Meter	UTM84-29N
WGS 1984 UTM Zone 29S	WGS 1984, UTM Zone 29 South, Meter	UTM84-29S
WGS 1984 UTM Zone 30N	WGS 1984, UTM Zone 30 North, Meter	UTM84-30N
WGS 1984 UTM Zone 30S	WGS 1984, UTM Zone 30 South, Meter	UTM84-30S
WGS 1984 UTM Zone 31N	WGS 1984, UTM Zone 31 North, Meter	UTM84-31N
WGS 1984 UTM Zone 31S	WGS 1984, UTM Zone 31 South, Meter	UTM84-31S
WGS 1984 UTM Zone 32N	WGS 1984, UTM Zone 32 North, Meter	UTM84-32N
WGS 1984 UTM Zone 32S	WGS 1984, UTM Zone 32 South, Meter	UTM84-32S
WGS 1984 UTM Zone 33N	WGS 1984, UTM Zone 33 North, Meter	UTM84-33N
WGS 1984 UTM Zone 33S	WGS 1984, UTM Zone 33 South, Meter	UTM84-33S
WGS 1984 UTM Zone 34N	WGS 1984, UTM Zone 34 North, Meter	UTM84-34N
WGS 1984 UTM Zone 34S	WGS 1984, UTM Zone 34 South, Meter	UTM84-34S
WGS 1984 UTM Zone 35N	WGS 1984, UTM Zone 35 North, Meter	UTM84-35N

Coordinate Systems for UTM WGS 1984 (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
WGS 1984 UTM Zone 35S	WGS 1984, UTM Zone 35 South, Meter	UTM84-35S
WGS 1984 UTM Zone 36N	WGS 1984, UTM Zone 36 North, Meter	UTM84-36N
WGS 1984 UTM Zone 36S	WGS 1984, UTM Zone 36 South, Meter	UTM84-36S
WGS 1984 UTM Zone 37N	WGS 1984, UTM Zone 37 North, Meter	UTM84-37N
WGS 1984 UTM Zone 37S	WGS 1984, UTM Zone 37 South, Meter	UTM84-37S
WGS 1984 UTM Zone 38N	WGS 1984, UTM Zone 38 North, Meter	UTM84-38N
WGS 1984 UTM Zone 38S	WGS 1984, UTM Zone 38 South, Meter	UTM84-38S
WGS 1984 UTM Zone 39N	WGS 1984, UTM Zone 39 North, Meter	UTM84-39N
WGS 1984 UTM Zone 39S	WGS 1984, UTM Zone 39 South, Meter	UTM84-39S
WGS 1984 UTM Zone 40N	WGS 1984, UTM Zone 40 North, Meter	UTM84-40N
WGS 1984 UTM Zone 40S	WGS 1984, UTM Zone 40 South, Meter	UTM84-40S
WGS 1984 UTM Zone 41N	WGS 1984, UTM Zone 41 North, Meter	UTM84-41N
WGS 1984 UTM Zone 41S	WGS 1984, UTM Zone 41 South, Meter	UTM84-41S
WGS 1984 UTM Zone 42N	WGS 1984, UTM Zone 42 North, Meter	UTM84-42N

Coordinate Systems for UTM WGS 1984 (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
WGS 1984 UTM Zone 42S	WGS 1984, UTM Zone 42 South, Meter	UTM84-42S
WGS 1984 UTM Zone 43N	WGS 1984, UTM Zone 43 North, Meter	UTM84-43N
WGS 1984 UTM Zone 43S	WGS 1984, UTM Zone 43 South, Meter	UTM84-43S
WGS 1984 UTM Zone 44N	WGS 1984, UTM Zone 44 North, Meter	UTM84-44N
WGS 1984 UTM Zone 44S	WGS 1984, UTM Zone 44 South, Meter	UTM84-44S
WGS 1984 UTM Zone 45N	WGS 1984, UTM Zone 45 North, Meter	UTM84-45N
WGS 1984 UTM Zone 45S	WGS 1984, UTM Zone 45 South, Meter	UTM84-45S
WGS 1984 UTM Zone 46N	WGS 1984, UTM Zone 46 North, Meter	UTM84-46N
WGS 1984 UTM Zone 46S	WGS 1984, UTM Zone 46 South, Meter	UTM84-46S
WGS 1984 UTM Zone 47N	WGS 1984, UTM Zone 47 North, Meter	UTM84-47N
WGS 1984 UTM Zone 47S	WGS 1984, UTM Zone 47 South, Meter	UTM84-47S
WGS 1984 UTM Zone 48N	WGS 1984, UTM Zone 48 North, Meter	UTM84-48N
WGS 1984 UTM Zone 48S	WGS 1984, UTM Zone 48 South, Meter	UTM84-48S
WGS 1984 UTM Zone 49N	WGS 1984, UTM Zone 49 North, Meter	UTM84-49N

Coordinate Systems for UTM WGS 1984 (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
WGS 1984 UTM Zone 49S	WGS 1984, UTM Zone 49 South, Meter	UTM84-49S
WGS 1984 UTM Zone 50N	WGS 1984, UTM Zone 50 North, Meter	UTM84-50N
WGS 1984 UTM Zone 50S	WGS 1984, UTM Zone 50 South, Meter	UTM84-50S
WGS 1984 UTM Zone 51N	WGS 1984, UTM Zone 51 North, Meter	UTM84-51N
WGS 1984 UTM Zone 51S	WGS 1984, UTM Zone 51 South, Meter	UTM84-51S
WGS 1984 UTM Zone 52N	WGS 1984, UTM Zone 52 North, Meter	UTM84-52N
WGS 1984 UTM Zone 52S	WGS 1984, UTM Zone 52 South, Meter	UTM84-52S
WGS 1984 UTM Zone 53N	WGS 1984, UTM Zone 53 North, Meter	UTM84-53N
WGS 1984 UTM Zone 53S	WGS 1984, UTM Zone 53 South, Meter	UTM84-53S
WGS 1984 UTM Zone 54N	WGS 1984, UTM Zone 54 North, Meter	UTM84-54N
WGS 1984 UTM Zone 54S	WGS 1984, UTM Zone 54 South, Meter	UTM84-54S
WGS 1984 UTM Zone 55N	WGS 1984, UTM Zone 55 North, Meter	UTM84-55N
WGS 1984 UTM Zone 55S	WGS 1984, UTM Zone 55 South, Meter	UTM84-55S
WGS 1984 UTM Zone 56N	WGS 1984, UTM Zone 56 North, Meter	UTM84-56N

Coordinate Systems for UTM WGS 1984 (*continued*)

SHP Coordinate System	MWF Coordinate System	CS Code
WGS 1984 UTM Zone 56S	WGS 1984, UTM Zone 56 South, Meter	UTM84-56S
WGS 1984 UTM Zone 57N	WGS 1984, UTM Zone 57 North, Meter	UTM84-57N
WGS 1984 UTM Zone 57S	WGS 1984, UTM Zone 57 South, Meter	UTM84-57S
WGS 1984 UTM Zone 58N	WGS 1984, UTM Zone 58 North, Meter	UTM84-58N
WGS 1984 UTM Zone 58S	WGS 1984, UTM Zone 58 South, Meter	UTM84-58S
WGS 1984 UTM Zone 59N	WGS 1984, UTM Zone 59 North, Meter	UTM84-59N
WGS 1984 UTM Zone 59S	WGS 1984, UTM Zone 59 South, Meter	UTM84-59S
WGS 1984 UTM Zone 60N	WGS 1984, UTM Zone 60 North, Meter	UTM84-60N
WGS 1984 UTM Zone 60S	WGS 1984, UTM Zone 60 South, Meter	UTM84-60S

World

Coordinate Systems for World

SHP Coordinate System	MWF Coordinate System	CS Code
WGS 1984	WGS84 datum, Latitude-Longitude, Degrees	LL84

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