



Using ArcReader™ and ArcGIS™ Publisher

GIS by ESRI™

Copyright © 2002 ESRI.

All Rights Reserved.

Printed in the United States of America.

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

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

CONTRIBUTING WRITERS

Mark Bockenhauer and Kristin Clark

U. S. GOVERNMENT RESTRICTED/LIMITED RIGHTS

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

ESRI, the ESRI globe logo, ArcReader, ArcGIS, the ArcGIS logo, GIS by ESRI, ArcMap, Geography Network, ArcCatalog, ArcSDE, ArcIMS, and www.esri.com are trademarks, registered trademarks, or service marks of ESRI in the United States, the European Community, or certain other jurisdictions.

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

Contents

1 Welcome to ArcReader and ArcGIS Publisher 1

- Sharing information 2
- Viewing maps 3
- Exploring data 4
- Printing maps 5
- Publishing maps with ArcGIS Publisher 6
- Tips on learning ArcReader and ArcGIS Publisher 7

2 ArcReader tutorial 9

- Exercise 1: Viewing a map 10
- Exercise 2: Querying a map 18
- Exercise 3: Printing a map 24

3 ArcReader basics 27

- Starting ArcReader 28
- Opening a map 29
- Interpreting the ArcReader information warning messages 30
- The ArcReader window 31
- The table of contents, data frames, and layers 32
- Using the table of contents 34
- The data frame 35
- The General tab 37
- The Data tab 38
- The Options dialog box 39
- Looking at a map in Data view and Layout view 40
- Moving around on the map 41
- Using spatial bookmarks 45
- The magnifier window 46
- Exploring and working with data on a map 47
- Printing 51
- Getting help 55
- Closing and exiting 56

4 ArcGIS Publisher basics 57

- Starting ArcGIS Publisher 58
- Preparing maps for publishing in ArcMap 59
- Creating a map to share on a computer network 60
- Creating a map to distribute with data 62
- Creating a map with Internet data 64
- Using Publisher settings 65
- The Map Contents Summary dialog box 71
- Sharing your maps 72

5 ArcGIS Publisher tutorial 73

- Exercise 1: Publishing a map 74
- Exercise 2: Customizing ArcGIS Publisher settings 77
- Exercise 3: Using ArcGIS Publisher security settings 82

Glossary 85

Index 89

Welcome to ArcReader and ArcGIS Publisher

1

IN THIS CHAPTER

- **Sharing information**
- **Viewing maps**
- **Exploring data**
- **Printing maps**
- **Publishing maps with ArcGIS Publisher**
- **Tips on learning ArcReader and ArcGIS Publisher**

Welcome to ESRI® ArcReader™ and the ArcGIS™ Publisher extension—tools for sharing maps designed in ArcMap™. Have you ever wanted to share an ArcMap map document with others, only to find out that those you want to share the map with do not have ArcMap? ArcReader and Publisher solve this problem by allowing you to publish and share maps with other people, even if they don't have ArcMap. ArcReader and Publisher provide an environment for sharing and distributing maps. Publisher converts ArcMap map documents into the published map file format (.pmf). These published maps can then be shared with ArcReader users. With ArcReader, you can:

- View published maps
- Explore data
- Experience dynamic mapping
- Print maps

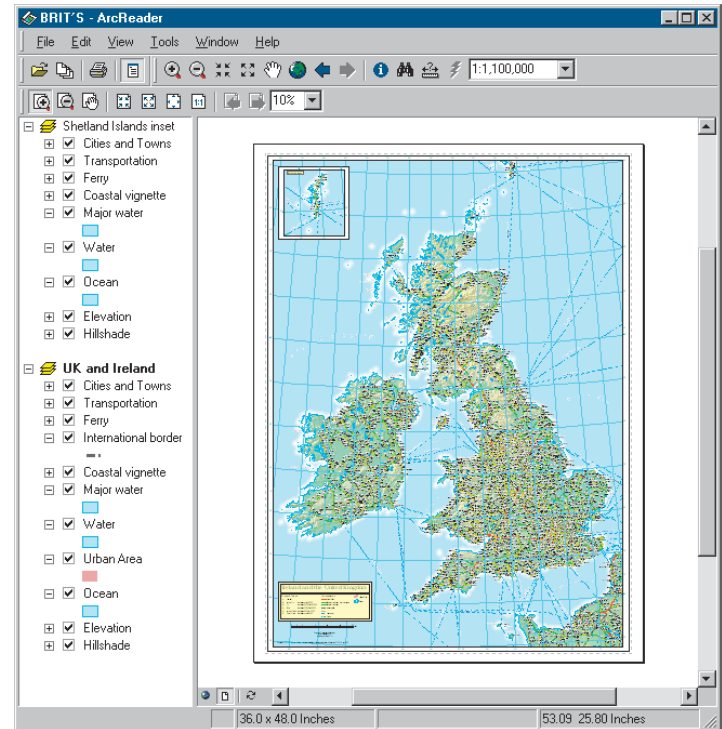
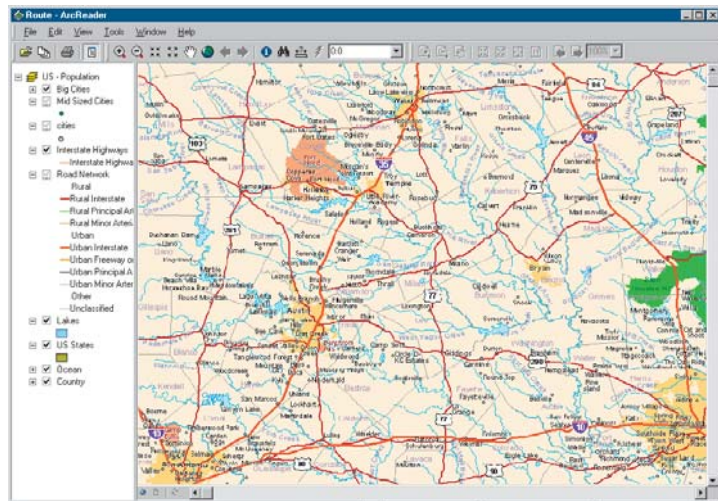
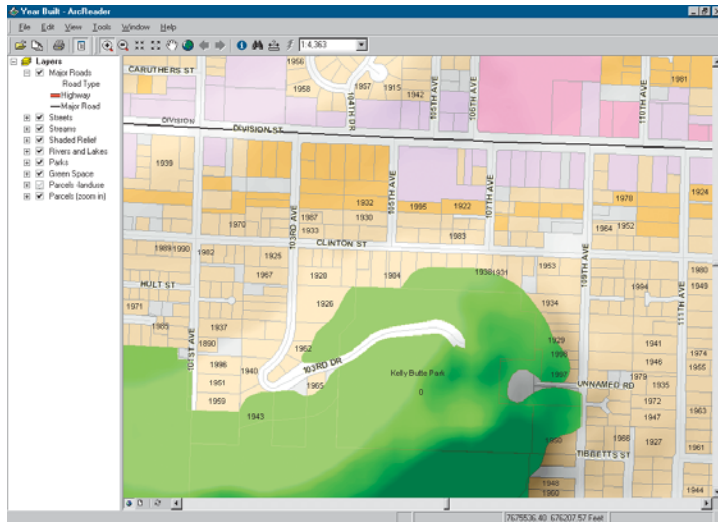
This book shows you how to use ArcReader and Publisher to view published maps or share your maps with other organizations or within your own organization. This chapter provides an introduction to ArcReader. Refer to Chapter 2, 'ArcReader tutorial', to gain a quick understanding of how to use ArcReader. Chapter 3 outlines how to use ArcReader. Chapter 4 introduces you to the ArcGIS Publisher extension. For a quick-start tutorial on using ArcGIS Publisher, see Chapter 5.

Publishing maps allows you to share your geographic information with ArcReader users as you see it in ArcMap.



Viewing maps

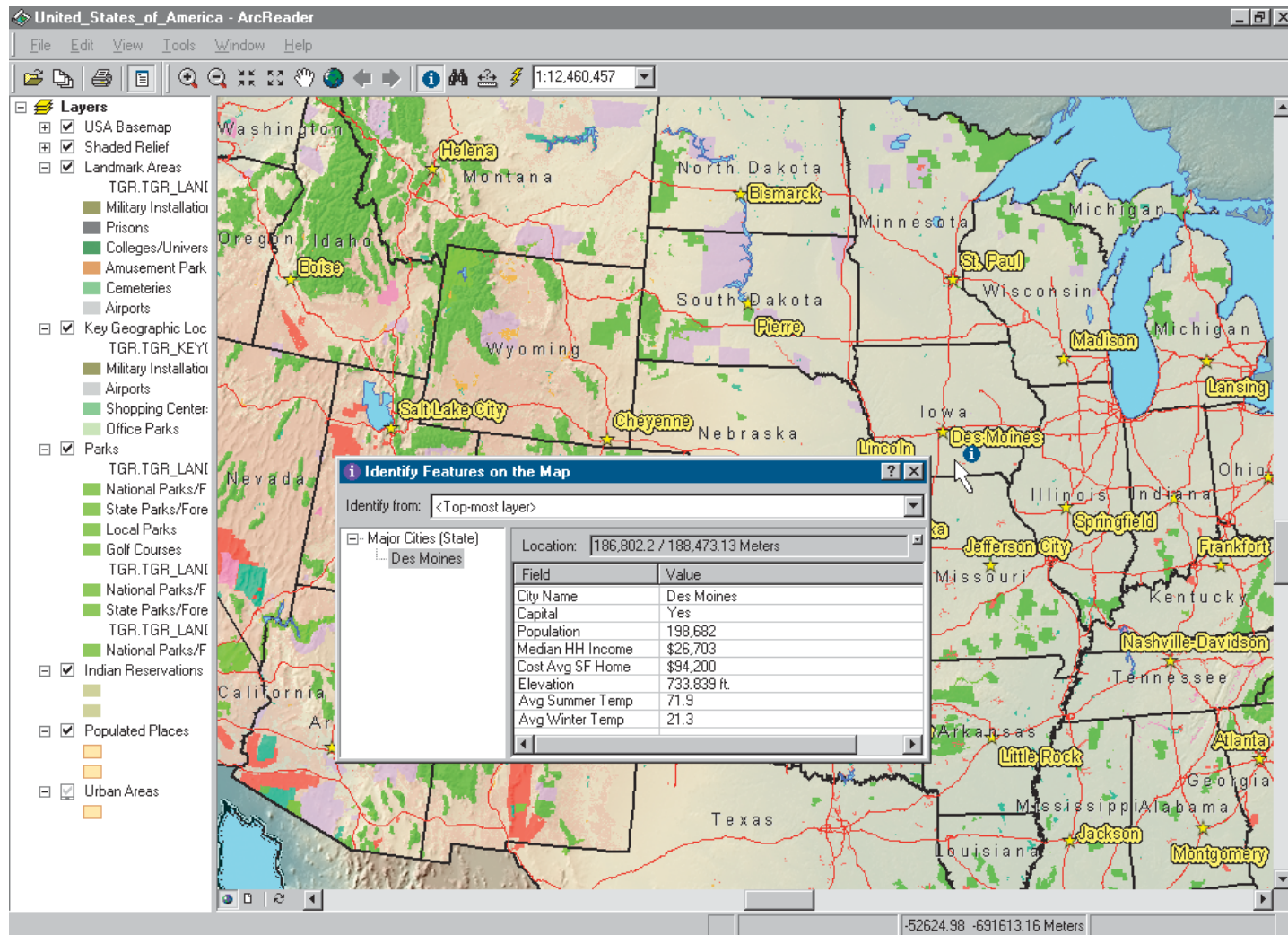
Sometimes just looking at a map will tell you what you want to know. Well-designed maps not only tell you where things are but also what's special about them. ArcReader displays maps as they appear in ArcMap, with the same high-end cartographic symbols and map elements geographic information system (GIS) professionals are accustomed to.



Being able to share well-designed maps, such as these, increases their value greatly.

Exploring data

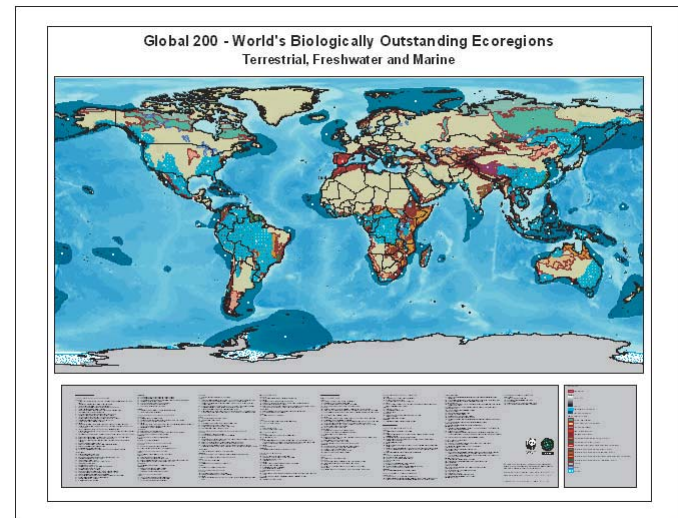
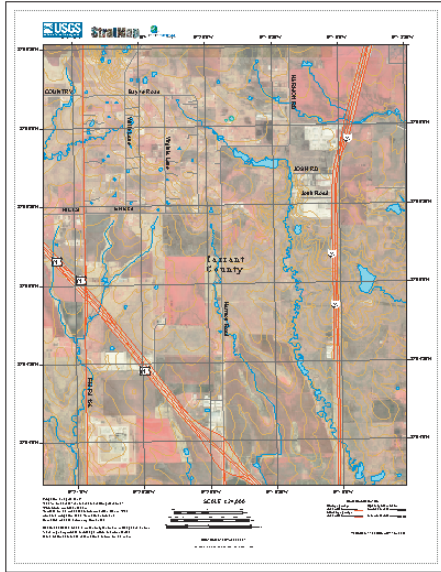
Maps are not static displays; they're interactive. You can browse a map—taking a closer look at a particular area—and point at features to find out more about them.



You can identify features to see their attributes.

Printing maps

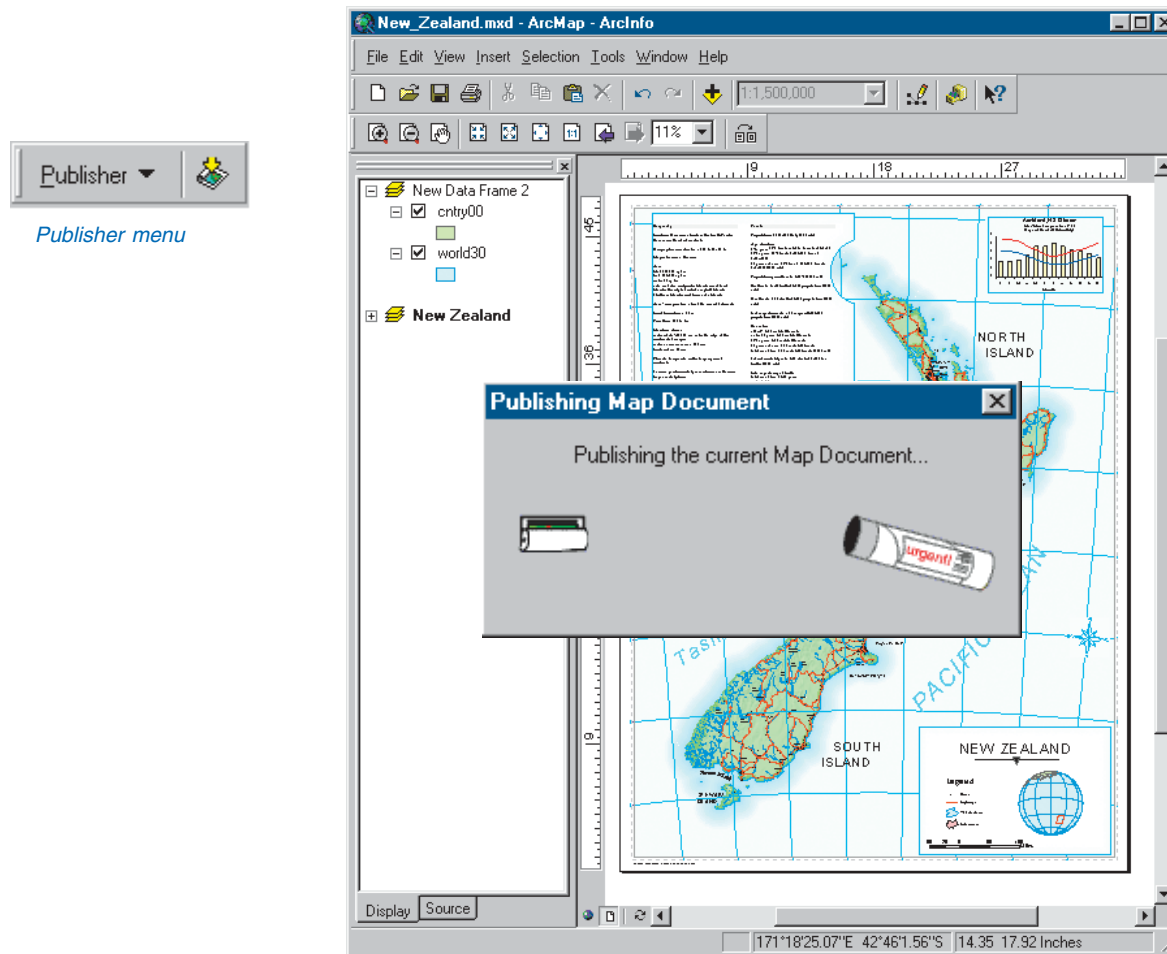
Use ArcReader to display published maps and print the maps as you see them. You can choose to print the full layout as it was published or zoom to a location and just print that portion of the map.



These maps can all be printed once they are opened in ArcReader.

Publishing maps with ArcGIS Publisher

You can publish any ArcMap map document with Publisher. All of the map elements and symbology are saved, along with references to the data, in a .pmf file. Maps based on file, server, and Internet data can all be published. You can even deliver the data with the published map. For more information about Publisher, please see Chapter 4, 'ArcGIS Publisher basics', and Chapter 5, 'ArcGIS Publisher tutorial'.



Example of a map being published in ArcMap

Tips on learning ArcReader and ArcGIS Publisher

If you're new to GIS and maps, remember that you don't have to learn everything about ArcReader to get immediate results. Begin learning ArcReader by working through Chapter 2, 'ArcReader tutorial'. This chapter shows you how quickly and easily ArcReader lets you explore a map and obtain valuable information from it. ArcReader comes with the map used in the tutorial, so you can follow along step by step at your computer. You can also read the tutorial without using your computer.

This book incorporates information about ArcReader and Publisher. After going through the ArcReader tutorial, you can quickly learn the basics of using the ArcGIS Publisher extension by working through the exercises in Chapter 5, 'ArcGIS Publisher tutorial'.

Finding answers to questions

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

Getting help on your computer

In addition to this book, the ArcMap and ArcReader online Help systems are valuable resources for learning how to use the software. To learn how to get help for your questions, see Chapter 3, 'ArcReader basics'.

Contacting ESRI

You can visit ESRI on the Web at www.esri.com and support.esri.com for more information on ArcReader, ArcGIS Publisher, and ArcGIS.

ESRI education solutions

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

ArcReader tutorial

2

IN THIS CHAPTER

- **Exercise 1: Viewing a map**
- **Exercise 2: Querying a map**
- **Exercise 3: Printing a map**

The best way to learn ArcReader is to try it yourself. This tutorial guides you through some basic ArcReader skills as you explore a map of Canada.

Exercise 1 introduces various ways that you can view a map in ArcReader.

Exercise 2 shows you how to query a map in ArcReader to get the most information possible from it.

Exercise 3 walks you through printing a map from ArcReader.

Each exercise in this tutorial takes between 15 and 20 minutes to complete. You can either work through the entire tutorial at once or complete each exercise one at a time.

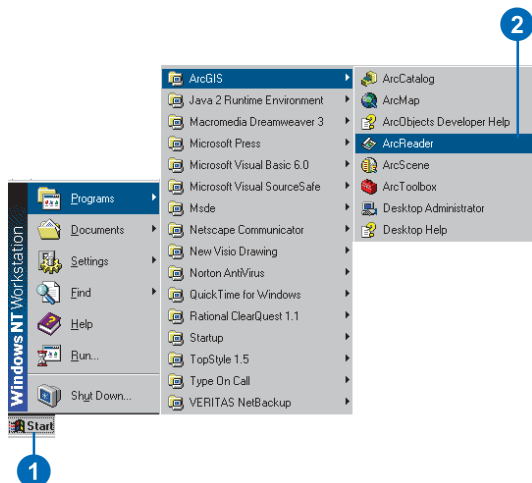
Before you begin the exercises in this tutorial, install the ArcReader tutorial data. To install the data, run the Tutorial setup during the ArcReader installation. You also have the option of running the Tutorial setup independently of the ArcReader installation.

Exercise 1: Viewing a map

In this exercise, you will open and explore a published map with ArcReader. You will also use ArcReader to query data on the map.

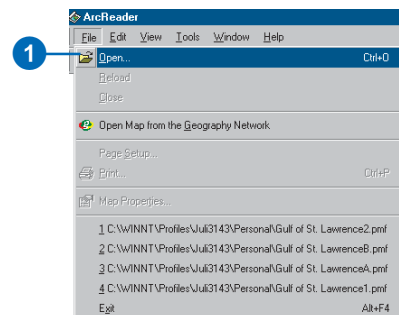
Starting ArcReader

1. Click Start on the Windows taskbar.
2. Click Programs, point to ArcGIS, and click ArcReader.
ArcReader opens.

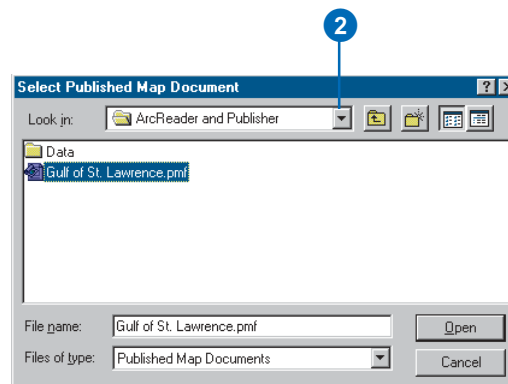


Opening an existing published map

1. Click File and click Open.

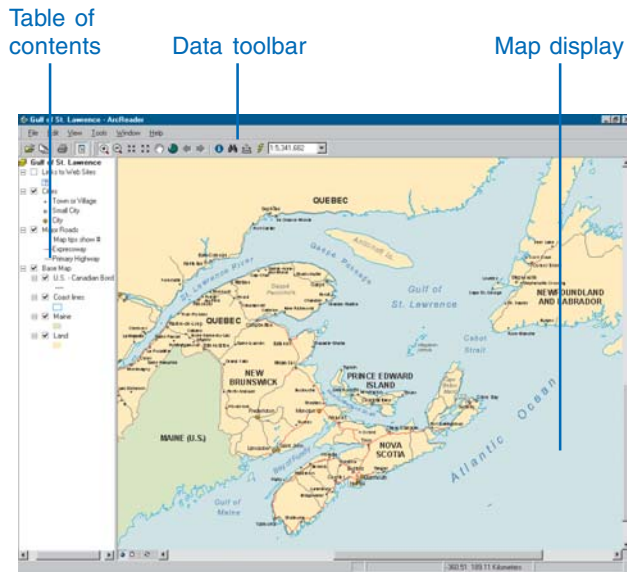


2. Click the Look in dropdown arrow and navigate to the Map folder on the local drive where you installed the tutorial. (C:\arcgis\arcexe82\ArcTutor is the default location.)



3. Double-click Gulf of St. Lawrence.pmf.
ArcReader opens the map.

ArcReader can open published map files (.pmf) that have been created in ArcMap using Publisher. These published maps do not actually store the data shown on the map, but rather reference the data, which may be stored on a local disk, on another computer, or on the Internet. The map document stores map elements, such as titles, scalebars, and North arrows.



This is an example of a .pmf—the Gulf of St. Lawrence.pmf.

This particular map contains the following layers in a data frame named Gulf of St. Lawrence:

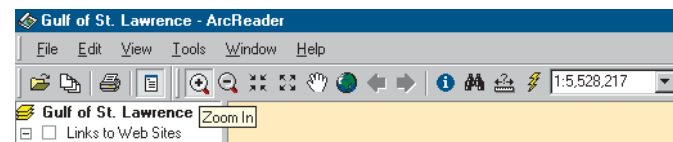
<u>Layers</u>	<u>What layers contain</u>
Links to Web Sites	Internet addresses
Cities	Locations of population centers
Major Roads	Locations of expressways and primary highways
Base Map	Contains land and coastline layers

A *data frame* is a frame on the map that displays layers in the same geographic area.

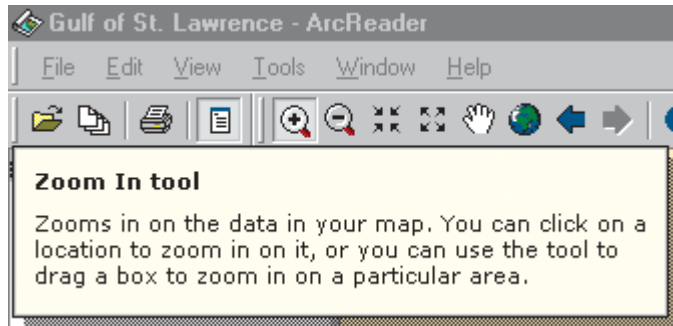
The map portrays the Gulf of St. Lawrence and the surrounding region. Notice that there are check boxes next to each layer name in the table of contents. All layers that are checked are drawn in the map display area.

Moving around a map

The Data toolbar has tools to move around the map and query features on the map. Hover your cursor over each icon (without clicking) to see the name of each tool. The name is displayed in a ToolTip. This tutorial will use these names to refer to specific buttons and tools. When you interact with the map, one of these tools will be active, and the pointer will change to the active tool when moved over the map.

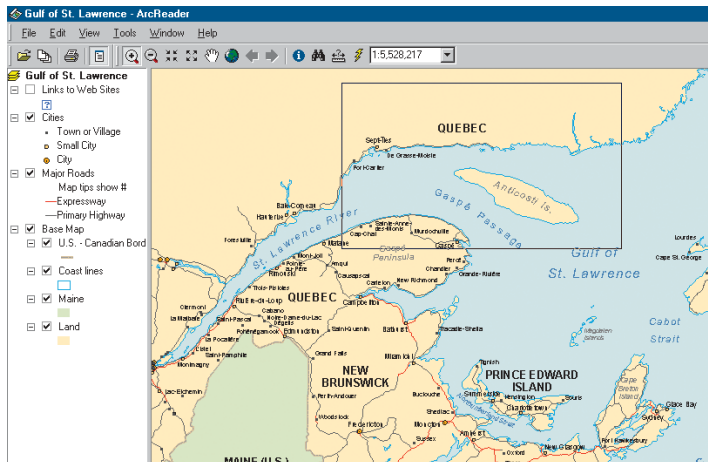


If you need more information about how a tool or command works, you can quickly access the context-sensitive help that is available for most tools. Press Shift+F1 on your keyboard while hovering over the tool with the mouse.



Context-sensitive help for the Zoom In tool is shown above.

1. Click the Zoom In tool, then click and drag a box around Anticosti Island and a portion of the St. Lawrence River. This will make it easier to read the labels and see where the cities and roads are located.

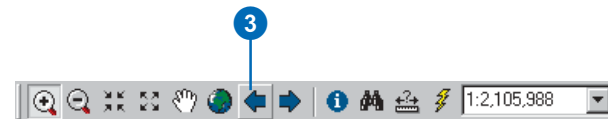


2. Using the Pan tool you can interactively manipulate the map. Click the Pan tool, then click the map and hold down the left mouse button to drag the display in any direction.



Pan tool

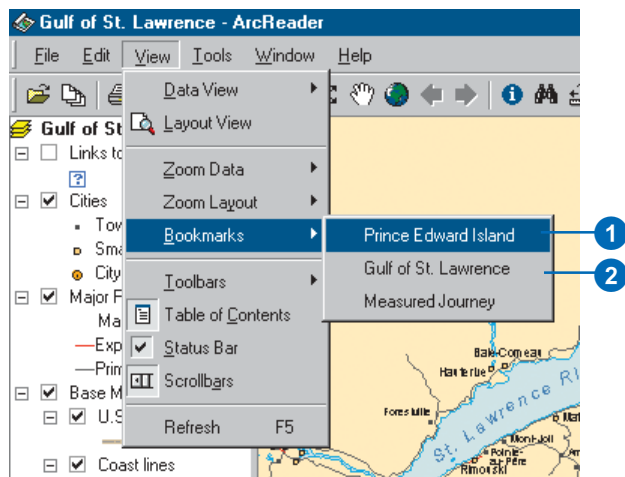
3. The Go Back and Go Next buttons can be used to revisit any of the places to which you have previously zoomed or panned. Click the Go Back button now to view the previous map extent.



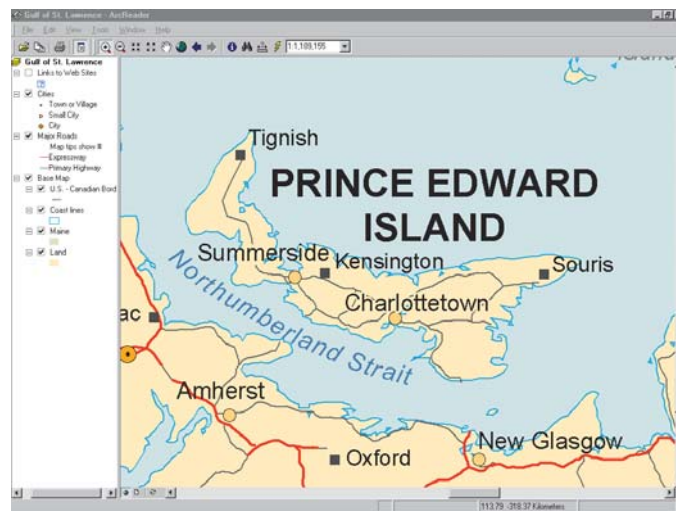
Using bookmarks

Bookmarks are named map extents created by the publisher of the map. The publisher zooms to a specific view of the map and saves it for future use. You can access the publisher's saved extents by selecting Bookmarks.

1. Click the View menu, point to Bookmarks, then click Prince Edward Island.



The map now shows Prince Edward Island.



2. Click the View tab, point to Bookmarks, then click Gulf of St. Lawrence to reset the map to its original display.

To learn how to set bookmarks, see *Using ArcMap*.

Turning layers on and off

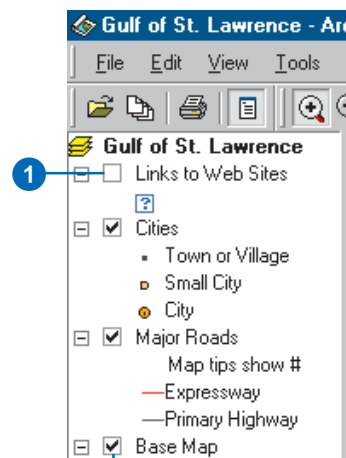
The table of contents is where you turn map layers on and off. To display a layer, check the Layer visibility check box next to its name. To turn the layer off, uncheck the box.

1. Check Links to Web Sites.

Notice the blue question mark symbols now draw on the map.

2. Uncheck the Links to Web Sites.

Notice that the layer is turned off and no longer displays on the map.

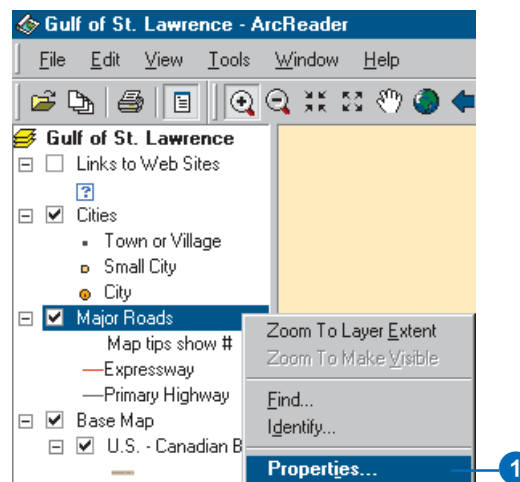


Layer visibility check box

Getting information about layers

Each of the layers in a map has a set of properties that can be viewed, allowing you to learn what features are available for that layer.

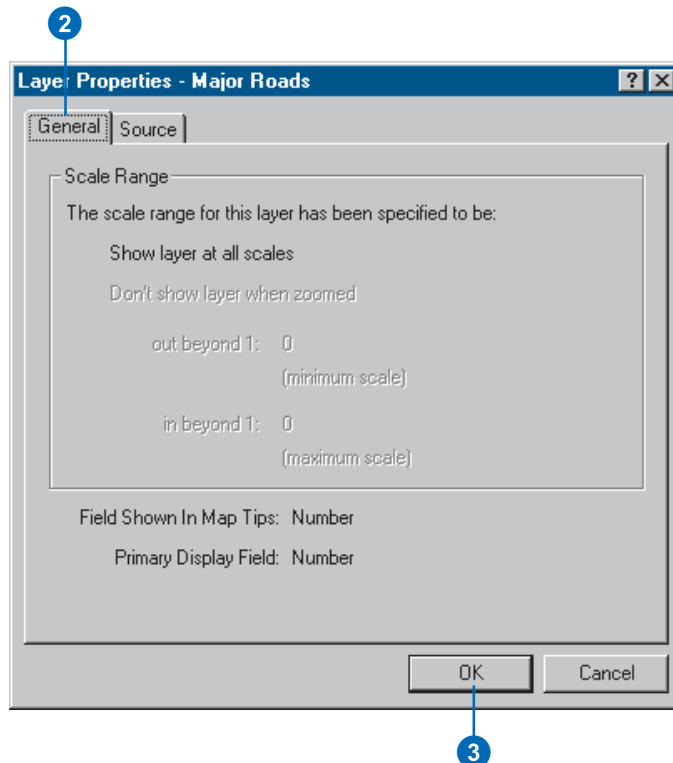
1. In the table of contents, right-click Major Roads and click Properties.



2. Click the General tab.

You can see whether the layer is displayed at all scales or only within a specific range of scales and whether Map Tips have been enabled for the layer. Map Tips are onscreen descriptions of map features that appear when you hover the mouse pointer over a feature. Later in this tutorial you will use Map Tips from this layer.

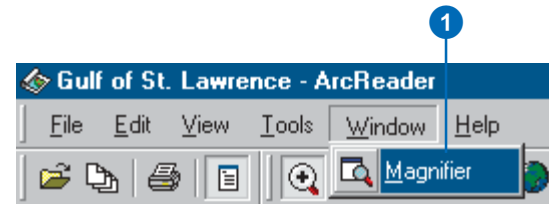
3. Click OK to close the Layer Properties dialog box.



Using the magnifier window

There are times when you may not want to change the location displayed on the map but still need to see more detail. The ArcReader magnifier window allows you to do this.

1. Click Window and click Magnifier.



The magnifier window opens.

2. Click the title bar of the magnifier window and drag it over the map. While you are dragging it, the magnifier window will show a crosshair to indicate what part of the display will be magnified.

- When the crosshair is over the portion of the map you would like to magnify, release the mouse button. You will see a magnified view of the location under the magnifier.

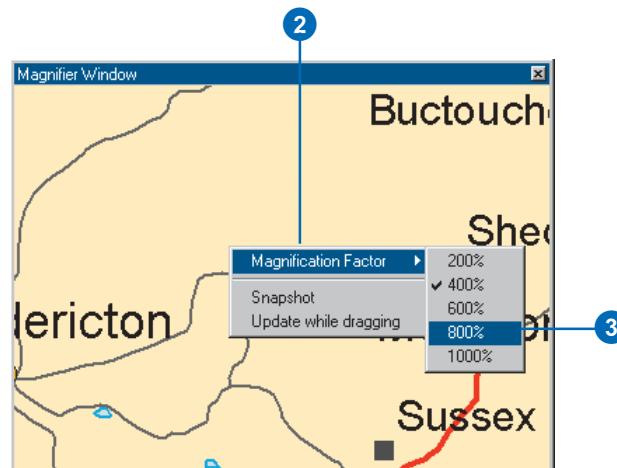


Changing the magnifier window properties

You can change several of the magnifier window properties, such as the magnification factor and what the magnifier window displays.

- Move your cursor near the edge of the magnifier window, then click and drag the cursor in the direction you want to resize the window (make it a little larger).

- Place your cursor in the middle of the magnifier window and right-click.
- Point to Magnification Factor and click 800%. This will scale the data displayed in the magnifier window by the percentage chosen.

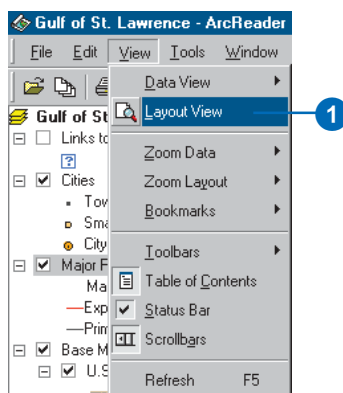


- Right-click the magnifier window and click Snapshot. Move the magnifier window somewhere else; notice that the picture doesn't change, but instead keeps your snapshot.
- To reenable the magnifier, right-click the magnifier window and click Snapshot again. The window redraws to magnify the section of the map it is over. When you have finished experimenting with the magnifier window, click the Close button to close it.

Data view and Layout view

ArcReader is capable of displaying a map in either Data view or Layout view. Up to this point this tutorial has been using Data view. Data view shows the contents of a data frame. Layout view shows the map as it would appear on a printed page. Layout view also shows map elements that aren't contained within the data frame, such as the map title, legend, scalebar, and North arrow.

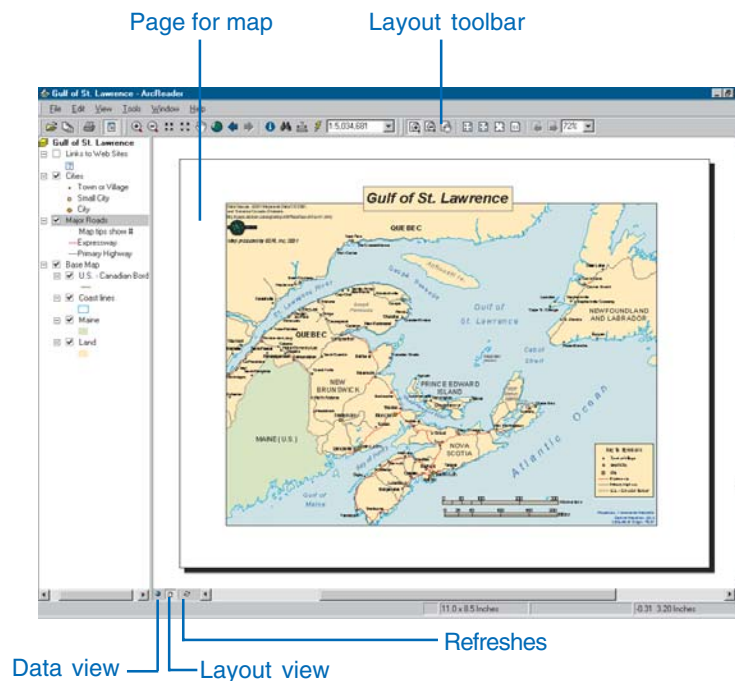
1. Click the View tab and click Layout View.



The map displays in Layout view. Notice the page includes a title, legend, scalebars, and some supporting text. Also displayed is the Layout toolbar, which contains tools for navigating in Layout view. Hover your cursor over each icon, without clicking, to see the name of each tool.

The Layout tools in the Layout toolbar are used like the tools in the Data toolbar. They allow you to change the way the page is displayed. Notice that the data tools are still accessible for changing the view of the data within the data frame.

There is a shortcut for switching between Data and Layout view. In the scrollbar near the bottom of the map, there are three small buttons. Clicking the globe icon switches to Data view, clicking the page icon switches to Layout view, and clicking the arrow icon refreshes the map.




In this exercise, you learned various ways to view a published map in ArcReader. In the next exercise, you will learn how to query a map in ArcReader.

Exercise 2: Querying a map

A map in ArcReader typically contains more information than you initially see. For example, a feature may hold attribute information that is not labeled or displayed on the map. With ArcReader you can query that information or use Map Tips to find a feature on the map.

Using Map Tips

The most readily accessible kind of map attribute information comes in the form of Map Tips. A Map Tip is an attribute chosen by the map author that displays whenever you hover any data tool over a feature on the map. Map Tips are only visible while in Data view.

1. Click the Data view button, located at the bottom-left part of the map. 
2. Click any data tool and hover over a road to see its name.



Road name

The Major Roads layers is the only layer in this map that has Map Tips enabled. You can tell if Map Tips are enabled for a layer by right-clicking the layer name in the table of contents and clicking the General tab on the Properties dialog box.

Identifying a location

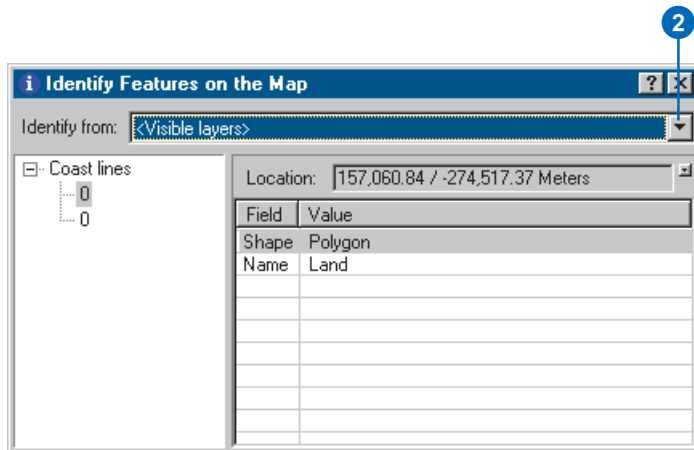
You can use the Identify tool to get two kinds of information—you can see what features are at a specific location and also investigate the attributes of each feature.

1. Click the Identify tool.

The Identify window opens.

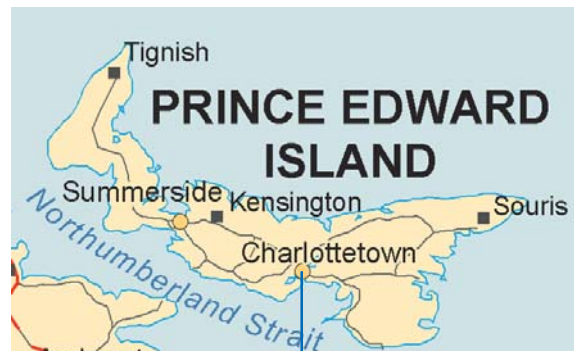


2. Click the Identify from dropdown list and click <Visible layers>.

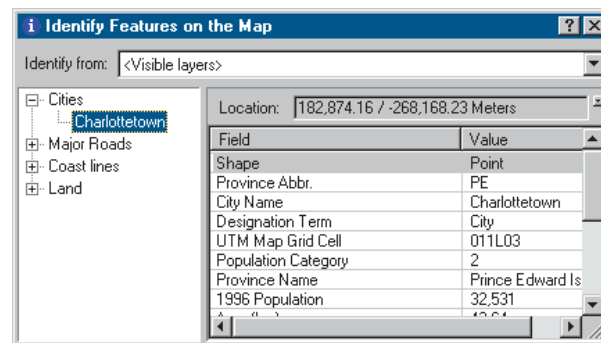


3. Click the View menu, click Bookmarks, then click Prince Edward Island.

4. Click the dot that represents the city of Charlottetown.

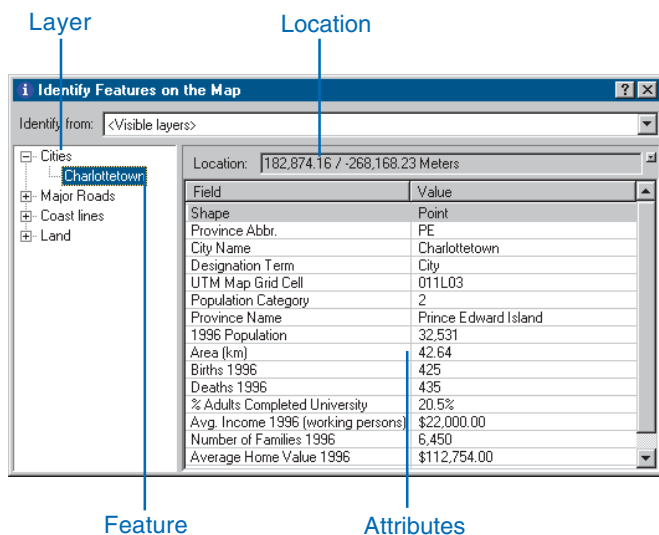


Notice that the Identify tool located not only information about Charlottetown but also information about the Major Roads, Coast lines, and Land. The identify results include all visible layers.

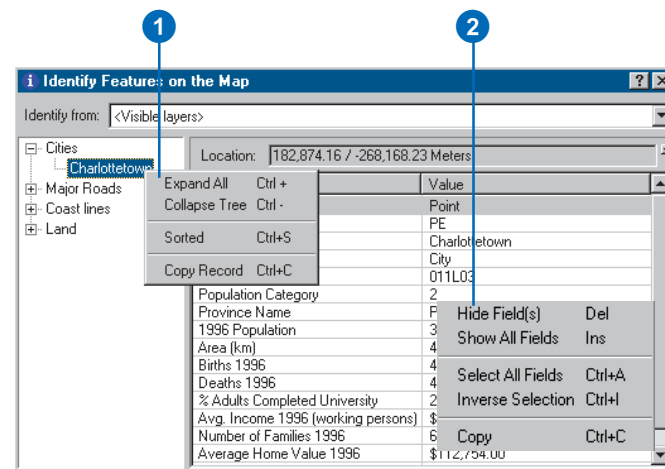


Identify window commands

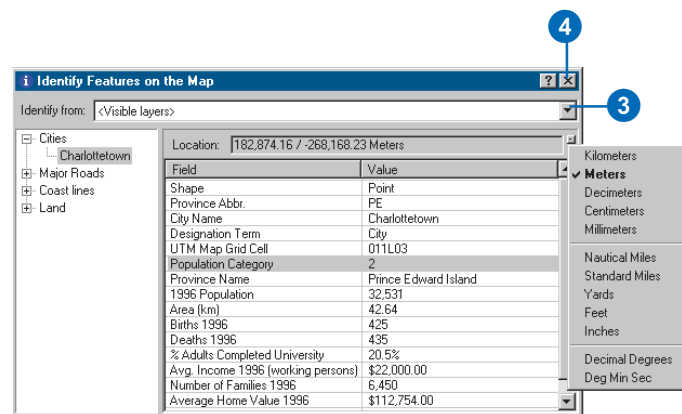
Right-clicking features, layers, or their attributes in the Identify window opens a context menu with options for working with the fields for that feature or layer.



1. Right-click a layer or feature. The options in the context menu allow you to expand all the fields, collapse the Identify tree, sort the fields, or copy a record.
2. Right-click an item in the Value column. The options in the context menu allow you to organize the Field values. You can hide or show all the fields, select all the fields, change the order of the fields (inverse selection), or copy all the fields. If you click Copy, you can then paste the information into another application, such as a text editor or a spreadsheet.



3. Click the small dropdown button to the right of the Location text box to open a menu that will allow you to display the location of the city in the units of your choice. Click Meters.



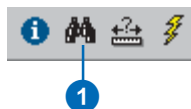
4. Close the Identify window.

Finding a location

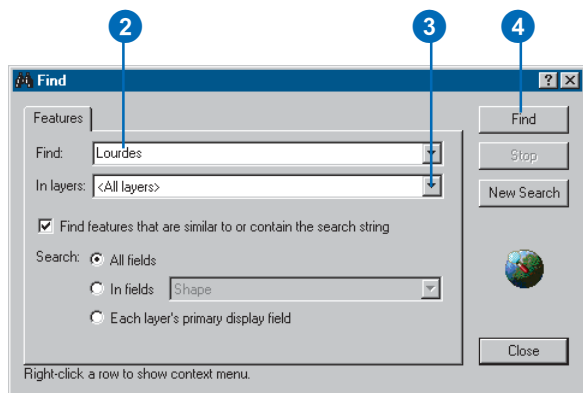
In ArcReader it is easy to find a feature based on a name or value using the Find tool.

1. Click the Find tool.

The Find dialog box appears.

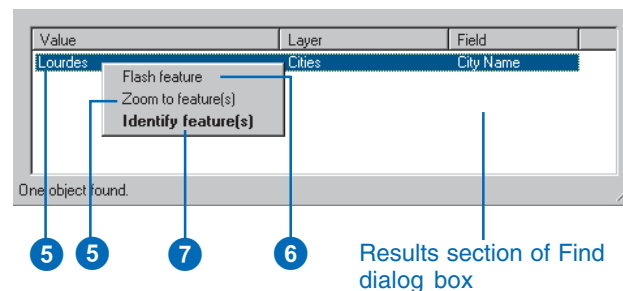


2. In the Find text box, type “Lourdes”.
3. Click the In layers dropdown arrow and click <All layers>.
4. Click Find. ArcReader locates the city called Lourdes and shows it as a row in the Results section of the window.



Once you've found a place, you can use the Find dialog box to navigate to or learn more about the feature.

5. In the Find dialog box, right-click Lourdes and click Zoom to feature(s). ArcReader zooms to the city of Lourdes.
6. Make sure the Find dialog box does not cover the city of Lourdes. In the Find dialog box, right-click Lourdes and choose Flash feature. Lourdes will flash.
7. Right-click Lourdes and click Identify feature(s). The Identify Features on the Map dialog box, which contains all the attribute information for the city of Lourdes, appears.

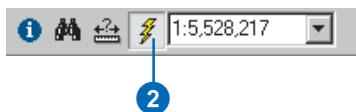


8. Close the Identify Features on the Map dialog box and the Find dialog box.

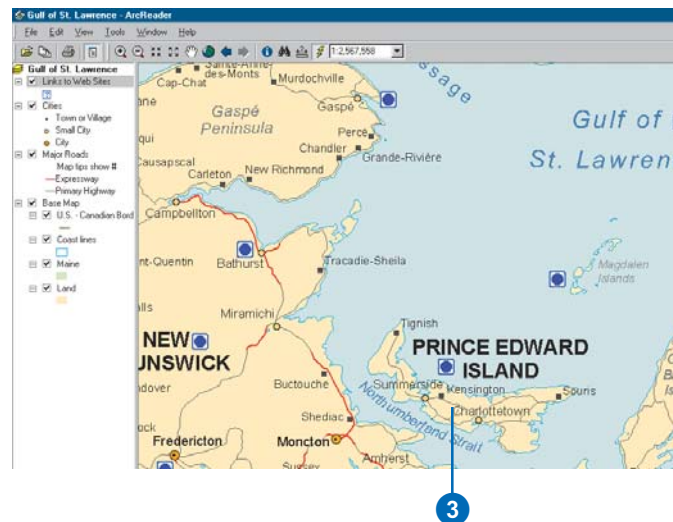
Using hyperlinks

Maps viewed with ArcReader may have hyperlinks to provide additional information about certain features. The Gulf of St. Lawrence map contains hyperlinks in the Links to Web Sites layer. Hyperlinks are only available in Data view, and you will need an Internet connection to use this tool. Click the View menu, point to Bookmarks, click Prince Edward Island, then continue with the exercise.

1. Check the Links to Web Sites layer in the table of contents. You should see a blue question mark appear on the screen. If the question mark does not appear, zoom out until it becomes visible.
2. On the Data toolbar click the Hyperlink tool to activate it. Notice that a blue dot appears over the question mark. This blue dot indicates hyperlinked features. The Links to Web Sites layer is the only layer with hyperlinks in this map.



3. Hover the Hyperlink tool over the center of the blue dot hyperlink. The cursor changes to a pointing hand. Click to open your default Internet browser. The official Web site of the Government of Prince Edward Island, Canada, where you can learn more about Prince Edward Island, displays.



Measuring distance

You can measure distances in ArcReader. The ArcReader Measure tool allows you to see how far apart two places are or even plot a route and check its distance.

1. Click the View menu, point to Bookmarks, then click Measured Journey.
2. Click the Measure tool on the Data toolbar.

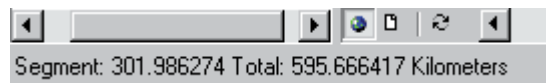


Measure tool

3. Click Port-Cartier, then plot a course through the Gaspé Passage and on to Cape St. George by clicking each time you want to change directions.
 4. Double-click on Cape St. George to finish measuring.
- The line you drew disappears.



There are a few things to notice as you do this. First, on the ArcReader status bar in the lower left, you will see the current segment's length. Second, you will see the total distance you have measured.



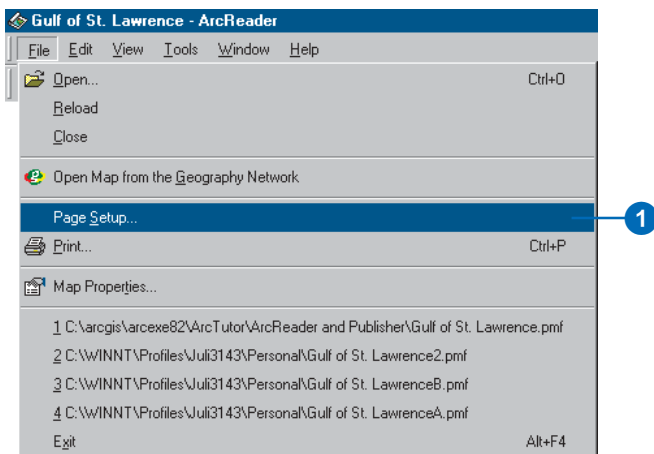
In this exercise, you learned various ways to query a published map to get more information from it. You learned about Map Tips and the various tools that let you investigate more closely the information a map contains. In the next exercise, you will learn how to print a map in ArcReader.

Exercise 3: Printing a map

To perform the following exercise, you will need to have a printer available. The printer should be able to print a letter size (or A4) sheet of paper and can be either a black-and-white or color printer.

1. Click the ArcReader File menu and click Page Setup.

The Page Setup dialog box opens. This dialog box contains options that let you change which printer you are using or change the settings for that printer.

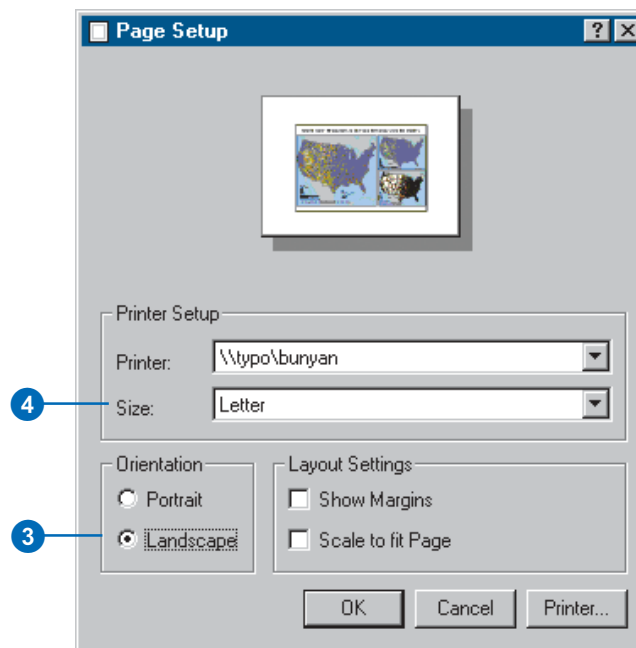


2. If the printer you want to print from is set as your default printer, skip to Step 3. Otherwise, click Printer in the Page Setup dialog box and choose the printer to which you want to print your map.

3. Click Landscape.
4. In the Printer Setup box, click the Size dropdown arrow and click Letter (or A4).

Note that it is possible to print this map to a larger or smaller paper size by checking the Scale to fit Page check box in the Page Setup dialog box. The map will scale up or down to fit the page.

5. Click OK.

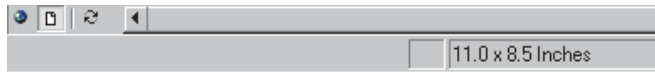


Printing a map

1. Click the Layout view button.

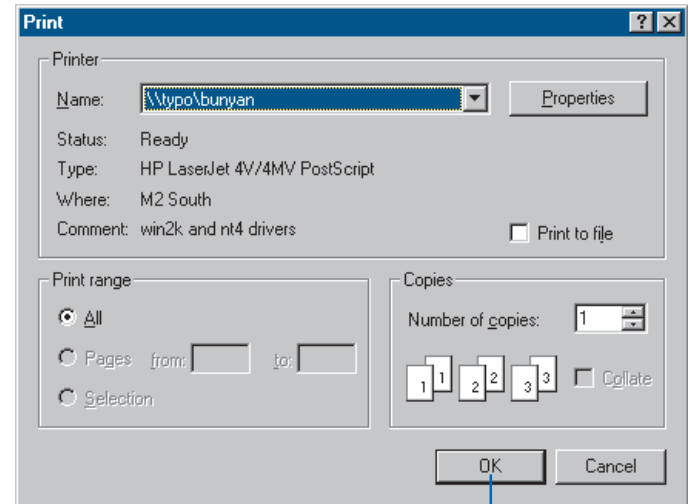
It's important to switch to Layout view because your printing results can vary depending on what view you are in. Printing in Data view will print the currently displayed data frame at the current extent to the selected paper size. The printed data will be scaled to fit the page size selected in Page Setup. When printing from Layout view the entire published page is printed.

2. Click the File menu and click Print.



In Layout view the original page size is displayed on the status bar.

3. Click OK.



In this tutorial you have been introduced to viewing, querying, and printing published maps with ArcReader. The next chapter provides more detail about these tasks as well as information about published maps and their uses in ArcReader.

ArcReader basics

3

IN THIS CHAPTER

- **Starting ArcReader**
- **Opening a map**
- **The ArcReader window**
- **The table of contents, data frames, and layers**
- **Looking at a map in Data view and Layout view**
- **Using spatial bookmarks**
- **The magnifier window**
- **Exploring and working with data on a map**
- **Printing**
- **Getting help**

In ArcReader you work with published maps. Maps help you visualize geographic data by showing you where things are, telling you what they are, and helping you understand why they are that way.

Published maps serve a variety of purposes. Some maps are interactive and meant to be browsed, others are formatted for printing, and some are created for both purposes. Every map can have a unique look—including both its graphic layout and interface—tailored to those who will ultimately use the map.

Starting ArcReader

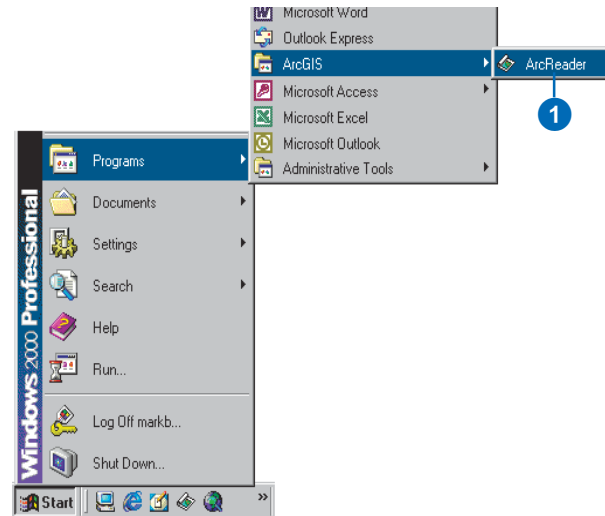
Starting ArcReader is the first step to exploring a published map.

Before you can start, ArcReader must be installed on your computer.

Once the software is installed, you can access ArcReader from the Start button on the Windows taskbar. Each ArcReader session can display one map at a time. You can work with several maps by starting additional ArcReader sessions.

Starting ArcReader from the Start menu

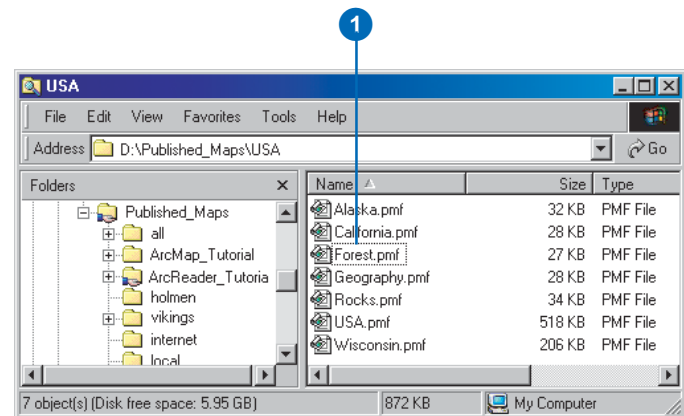
1. Click Start on the Windows taskbar, click Programs, point to ArcGIS, then click ArcReader.



Starting ArcReader from Windows Explorer

1. Navigate to the folder where your published map (.pmf extension) is saved, then double-click the published map.

ArcReader launches and the map displays.



Opening a map

To work with a map, open it in ArcReader. You can also navigate to the map using Windows Explorer and double-click it.

A map doesn't store the spatial data displayed on it. Instead, it stores references to the location of these *data sources*—for example, geodatabases, coverages, shapefiles, and rasters—on disk or on the Internet. When you open a map, ArcReader checks the links to the data. If it can't find some data—for instance, if the source data for a layer has been deleted or renamed, a network drive is not accessible, or a Web server is down, a red exclamation point displays next to the layer name. The layer will still be part of the map and listed in the table of contents, but it won't display.

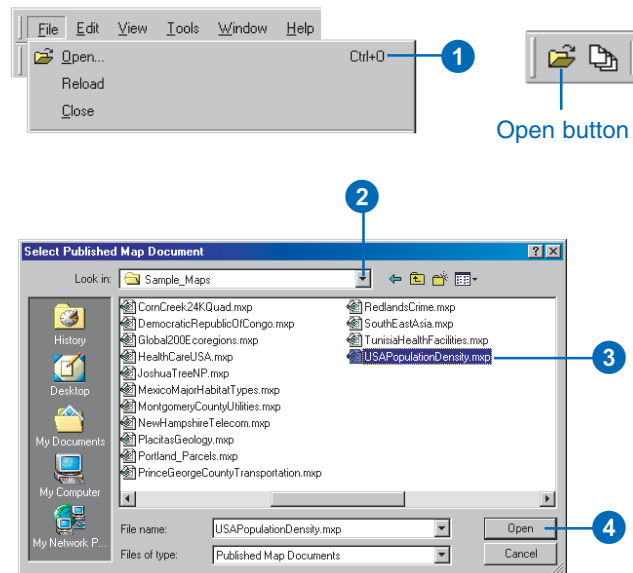
Tip

Setting the number of files in the recent file list

You can control the number of files displayed in the recent file list in the Options dialog box. To adjust how many files appear, click the Tools menu, click Options, then click the General tab. Adjust the number of files to show in the menu.

Opening a map from ArcReader

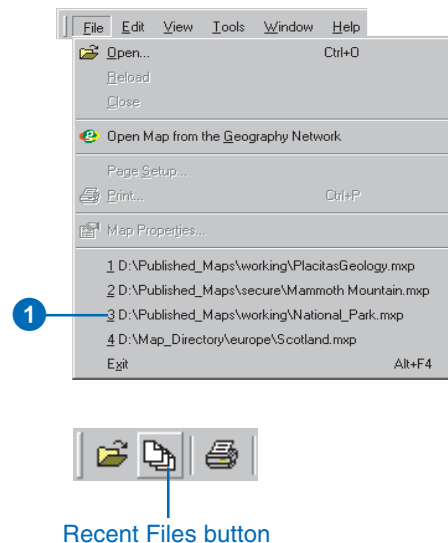
1. Click the Open button or click the File menu and click Open.
2. Click the Look in dropdown arrow and navigate to the folder that contains the map.
3. Click the map you want to open.
4. Click Open.



Opening a recently opened map

1. Click File and click a map from the list of recently opened maps.

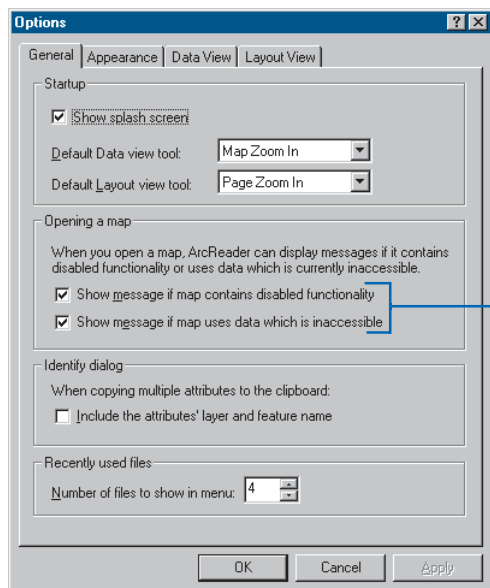
You can also use the Recent Files button on the File toolbar.



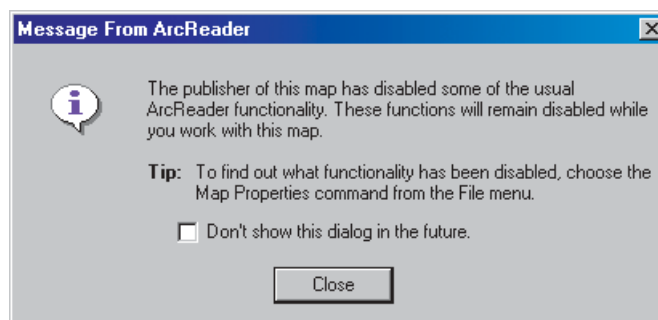
Interpreting the ArcReader information warning messages

Sometimes when you open a map, you get a message from ArcReader telling you that ArcReader functionality has been disabled by the map author or that data is inaccessible.

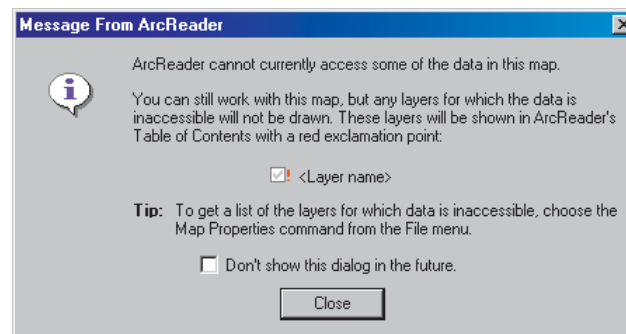
The messages from ArcReader contain the option to not show the messages in the future. If you check this check box and decide later that you would like the messages to appear, you can turn them back on in the Options dialog box. To do this, click the Tools menu, click Options, click the General tab, and check both check boxes in the Opening a map section of the dialog box.



Check the check boxes to turn the messages about functionality in ArcReader on and off.



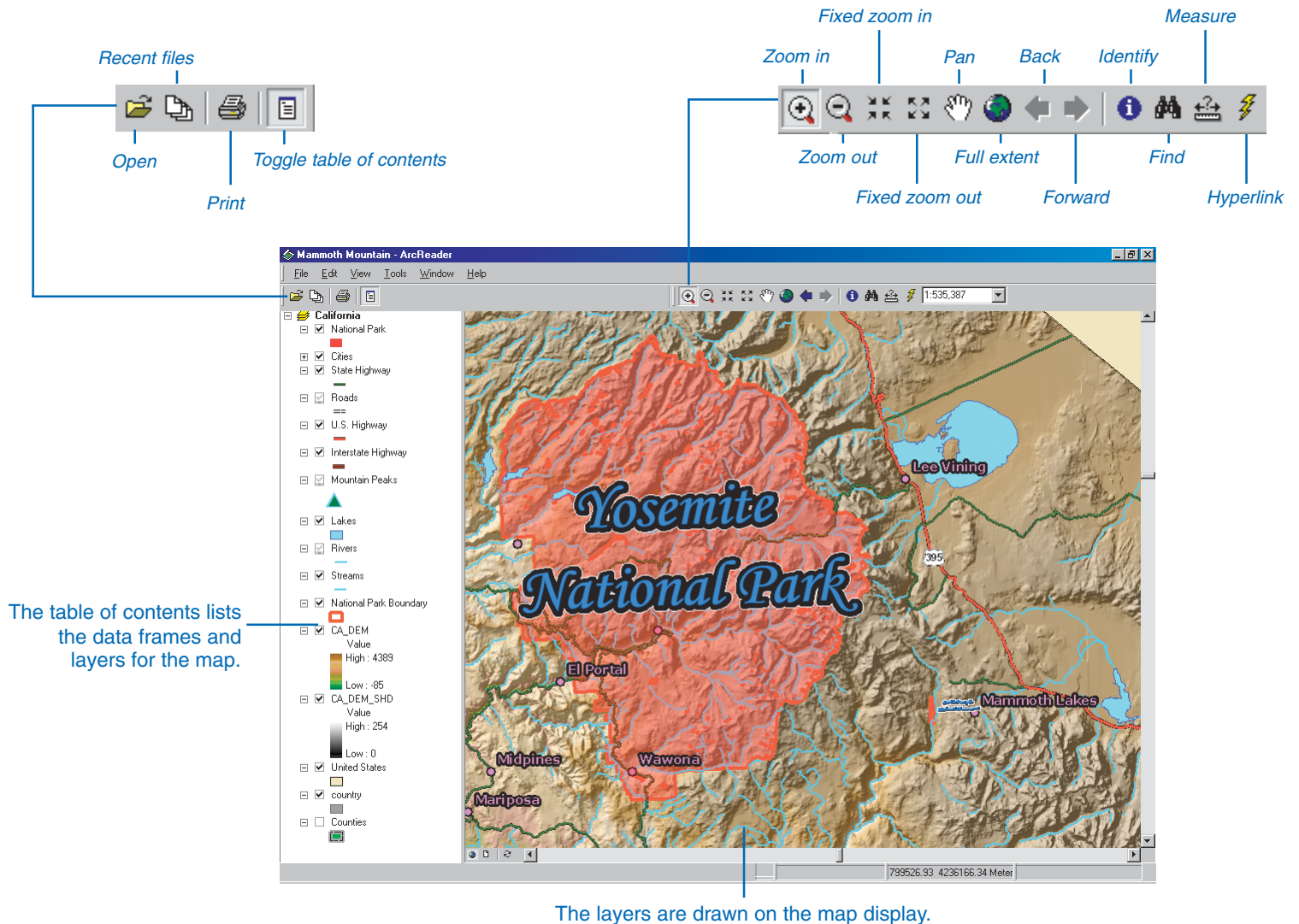
When you see this message, some functionality is not available in the map.



When you see this message, the data is unavailable for display.

The map author decides how the map will display in ArcReader and what functionality will be available for use with the map. To find out if the map was published with special settings, you can use the Map Properties dialog box. To access the Map Properties dialog box, click the File menu and click Map Properties.

The ArcReader window

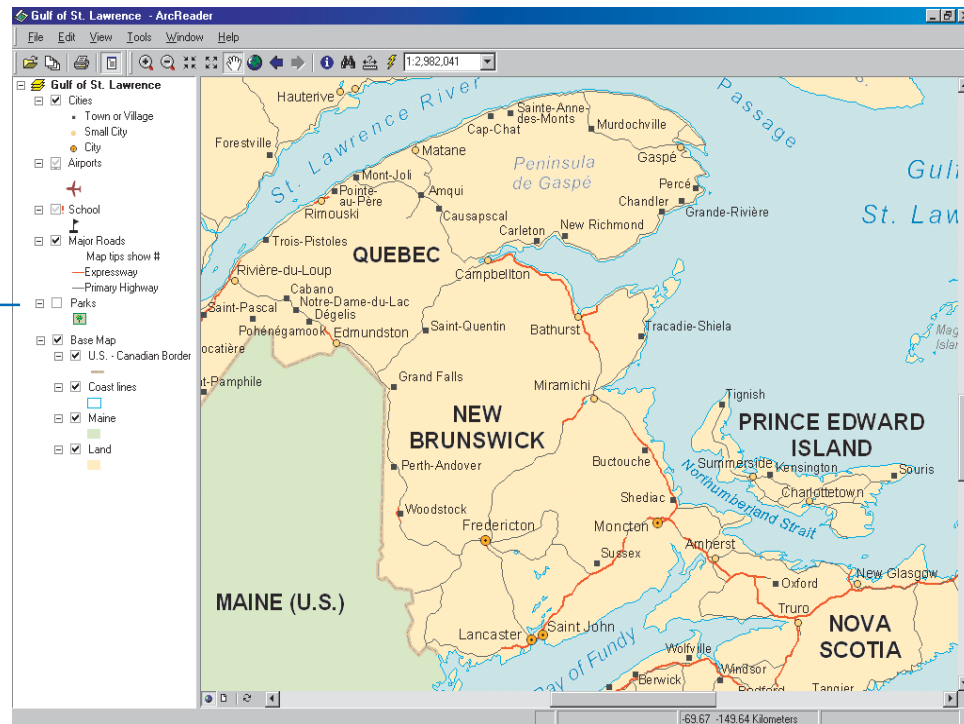


The table of contents, data frames, and layers

A published map is a graphical representation of geographic data. Geographic information on a map is displayed as *layers*, where each layer represents a particular type of *feature*, such as a stream, lake, highway, political boundary, or wildlife habitat. A layer doesn't store the actual geographic data; instead, it references data stored on a computer. Referencing data in this way allows the layers on a map to automatically reflect the most up-to-date information in a GIS database.

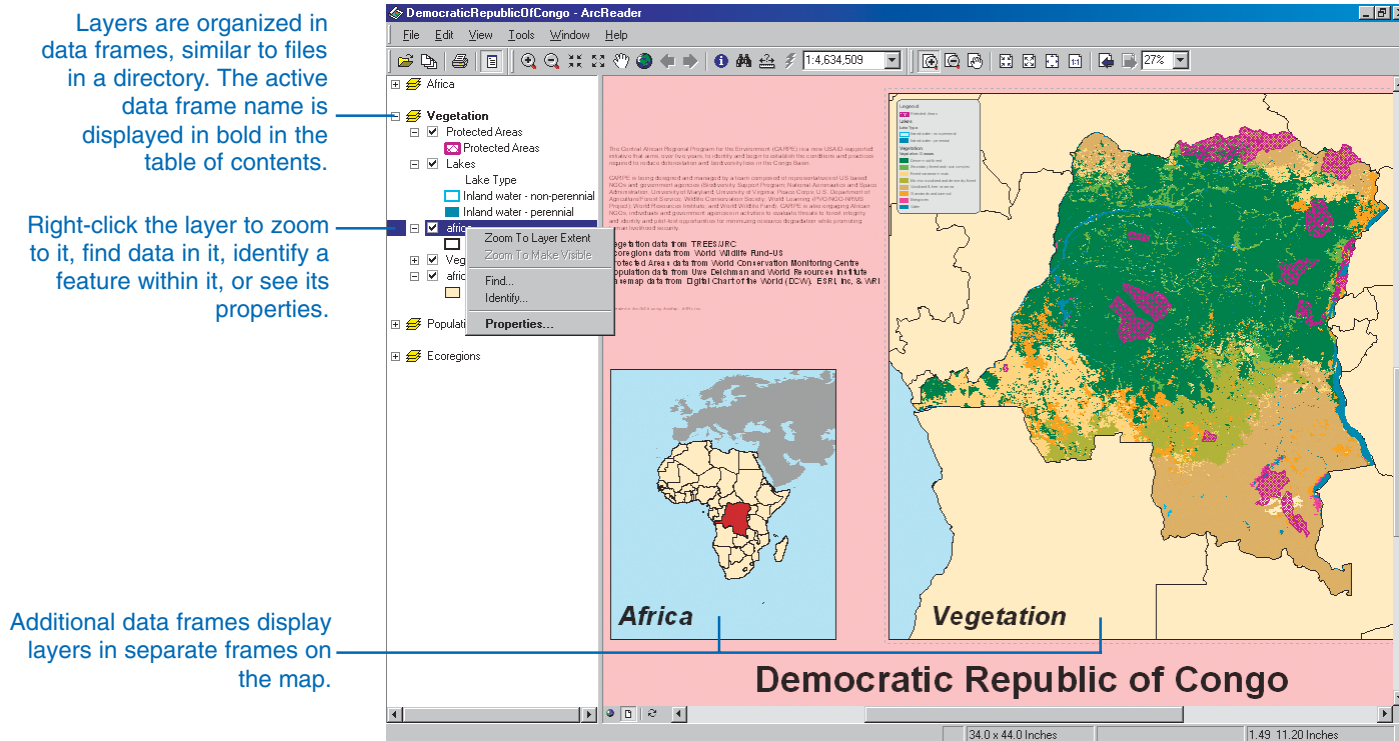
The *table of contents* lists all the layers on the map and shows what the features in each layer represent. You can turn each layer on or off by checking and unchecking the check box next to the layer. When the layer is on, it draws on the map. The order of layers within the table of contents is also important; the layers at the top draw on top of those below them.

An unchecked layer will not be drawn in the display window.



Layers in the table of contents can be further organized into *data frames*. A data frame simply groups, in a separate frame, the layers that are displayed together.

You may want to add more data frames when you want to compare layers side by side or create insets and overviews. When a map has more than one data frame, one of them is the *active data frame*. The active data frame is the one you're currently working with. You can always tell which data frame is active because it's highlighted on the map with a hatched frame and its name is shown in bold text in the table of contents. Of course, if a map has only one data frame, it's always the active one.



Using the table of contents

Every map has a table of contents. The table of contents shows you what layers the map contains and also how the map symbolizes the geographic features in those layers.

Some maps display all the layers in one data frame. Others, such as those with insets and over-views, have more than one data frame. The table of contents shows how the layers are organized into data frames.

When viewing a map, you'll use the table of contents primarily to turn layers on and off.

Tip

No table of contents?

The map author may have published the map with the table of contents turned off. To find out what other functionality may have been disabled by the map's author, look at the Map Properties dialog box. Click the File menu and click Map Properties.

Tip

Interrupting the drawing of the layer

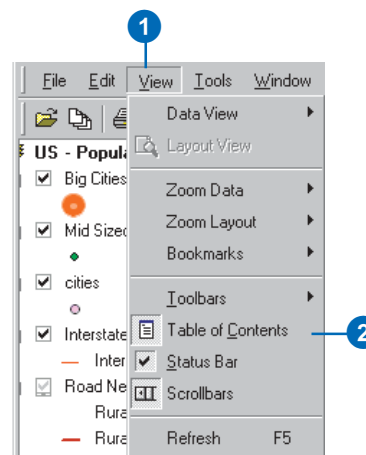
You can click anywhere in the ArcReader window or the table of contents to stop the drawing process.

Showing the table of contents

1. Click the View menu.
2. Click Table of Contents.

This command is used to toggle the table of contents on and off.

If the table of contents was disabled by the map's author, it cannot be turned back on.

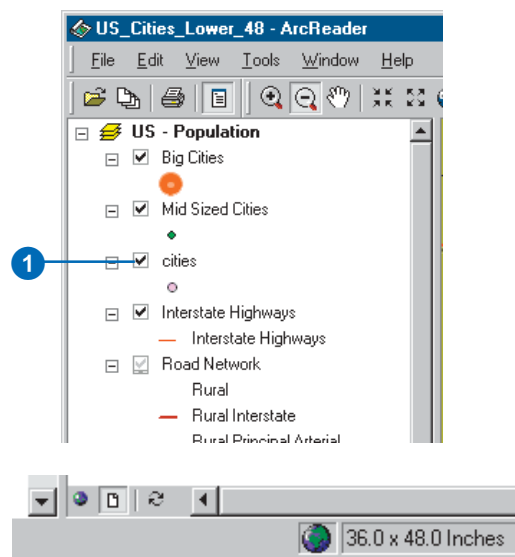


Turning a layer on or off

1. Check the box next to the layer's name in the table of contents.

The layer should appear on your map. If you can't see the layer, it may be hidden by another layer or may be set to display only at a particular scale.

The spinning globe on the ArcReader status bar indicates the map is drawing.



The data frame

A data frame is a frame on the map that displays layers in the same geographic area. A map may have one or many data frames. For instance, one data frame might highlight a detailed road network, while another might provide an overview of where the detailed road network is within a larger geographic area.

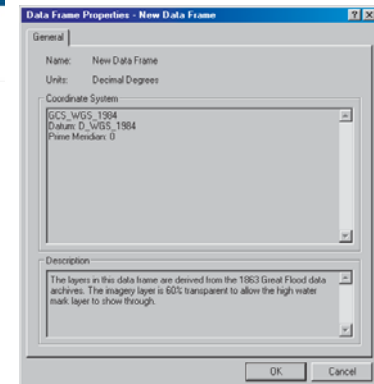
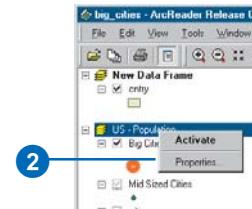
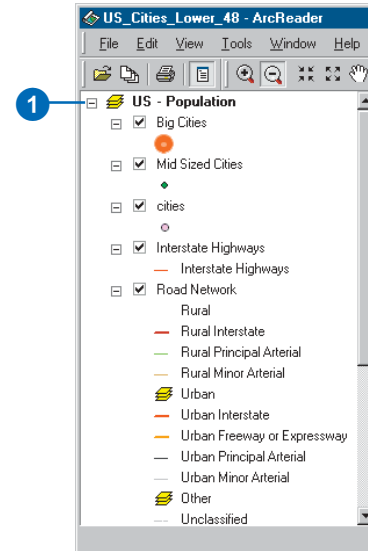
Data frames and layers are listed in the table of contents. The layers listed under a data frame in the table of contents are contained within the data frame on the map. Only one data frame can be viewed at a time in Data view. The data frame name appears in bold text in the table of contents when the data frame is active. All data frames in a map are visible in Layout view. Layout view shows all of the data frames as they appear on a page. The active data frame appears in bold text in the table of contents.

Showing the contents of a data frame in the table of contents

1. Click the plus or minus sign to the left of the data frame in the table of contents to show or hide the list of layers it contains.

The active data frame is shown in bold.

2. Right-click the data frame name and click Properties. The Data Frame Properties dialog box shows information about the coordinate system and notes from the map author.



Tip

Why isn't my layer drawing?

The layer may have a visible scale range set. If you see a gray scalebar underneath the layer's check box in the table of contents, it's not drawing because it's outside of a visible scale range. You'll need to zoom in or out to see it.

If you see a red exclamation point next to the layer name, the link to the layer's data source is broken. The map is unable to connect to the data.

Viewing a layer's properties

1. Right-click the layer name and click Properties.

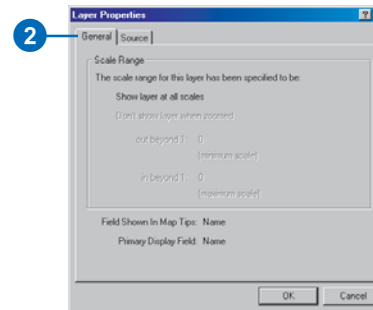
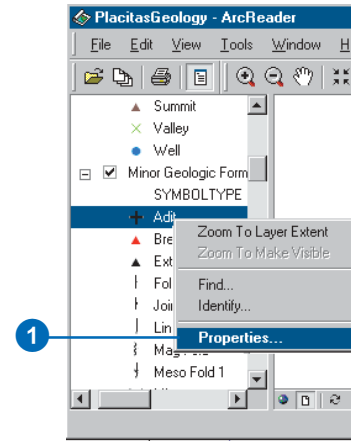
The Layer Properties dialog box opens.

2. Click the General tab.

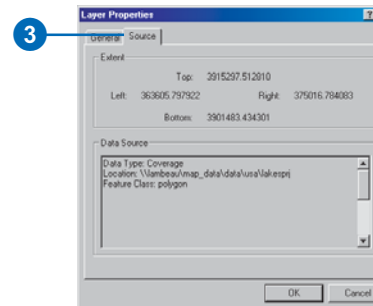
The General tab contains information about scale dependency. Scale dependency is used to draw features at various scales. Some data is too dense to show at small scales. In this case, the data will draw when you zoom to a larger scale.

3. Click the Source tab.

The Source tab displays information about the type, name, location, and coordinate system of the data source referenced by this layer. If the layer has a red exclamation point next to it in the table of contents, ArcReader is unable to connect to the source data.



A Map Tip shows a text attribute for the Holston River.



The Source tab shows the data type and location.

The General tab

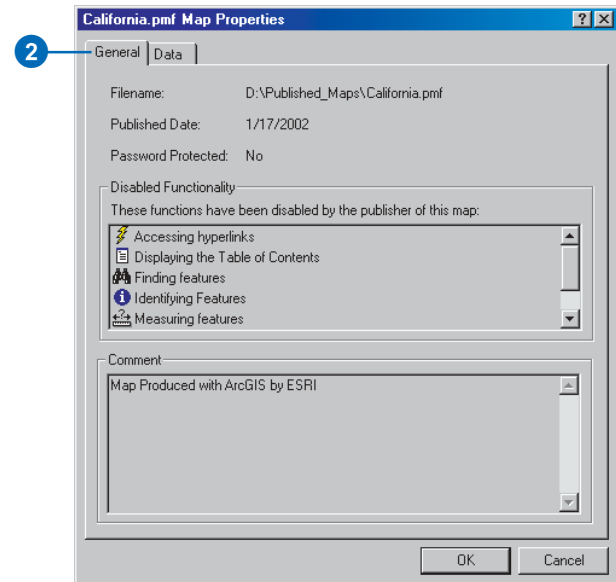
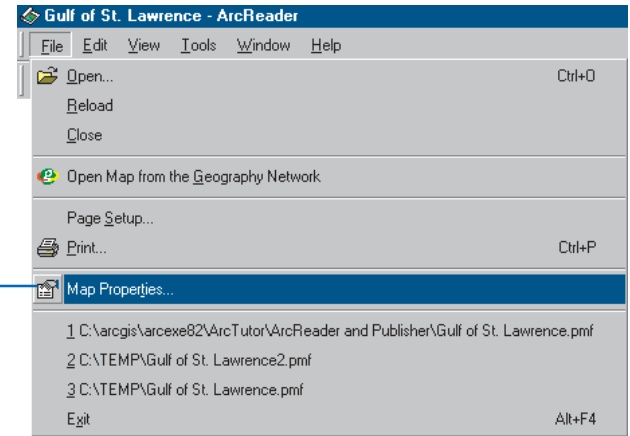
The General tab in the Map Properties dialog box can be useful to find out what tools and commands have been disabled by the map author or to read the comments that the map author has provided. Sometimes when a map is published, the map author disables some functionality or includes comments and information about the map. Disabled functionality is listed on the General tab. Any tools or commands that have been disabled will not be available for use with the map.

Accessing the General tab on the Map Properties dialog box

1. Click File and click Map Properties.

The Map Properties dialog box opens.

2. Click the General tab.



The Data tab

The Data tab in the Map Properties dialog box lists layers that are inaccessible. Check here to see the names of broken layers. Since a broken layer cannot be published in a map, something has happened to the data, or ArcReader is unable to connect to the data.

Tip

Broken data links

If you see a red exclamation point next to the layer name in the table of contents, the link to the layer's data source is broken. The map is unable to connect to the data.

Tip

Repairing broken layers

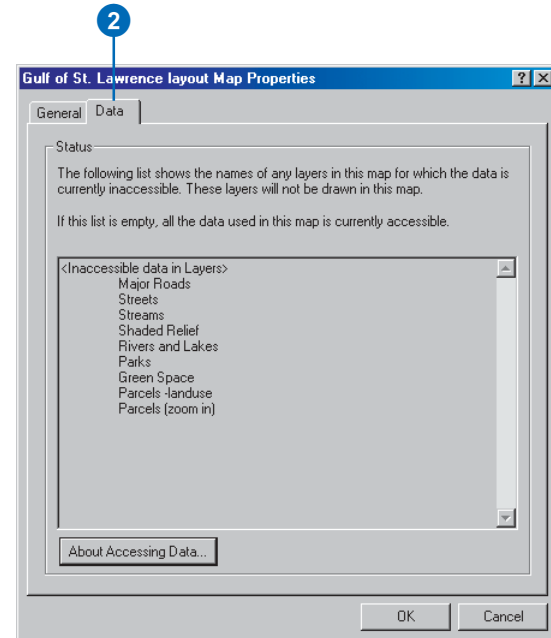
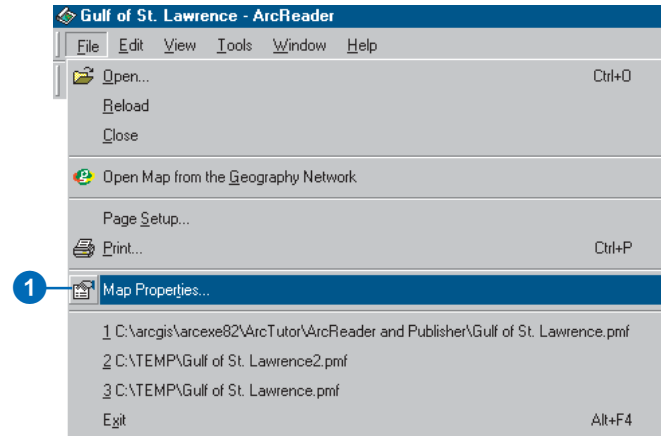
Clicking the About Accessing Data button on the Data tab of the Map Properties dialog box gives you more information about broken layers as well as suggestions about how to fix them.

Finding the status of the data for layers in the map

1. Click File and click Map Properties.

The Map Properties dialog box opens.

2. Click the Data tab.



Click About Accessing Data on the Data tab to learn more about broken layers and data access.

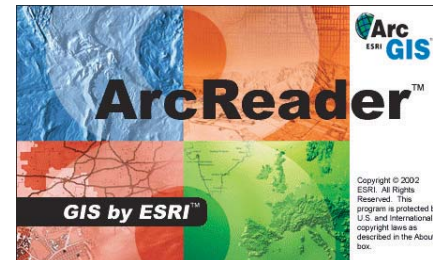
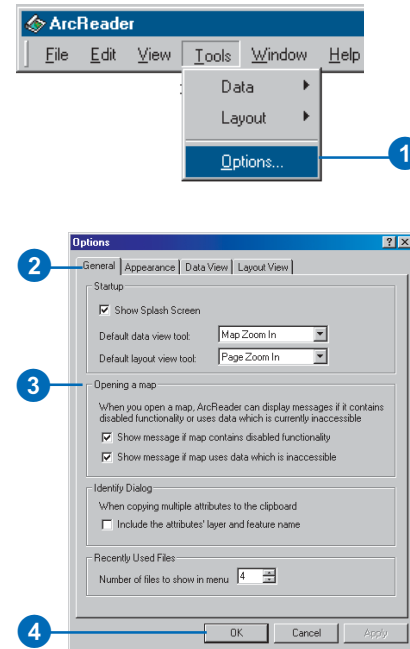
The Options dialog box

The General tab on the Options dialog box lets you control how ArcReader initially opens. In this dialog box, you can specify how to display information messages, decide whether or not you want the splash screen to appear when you first open ArcReader, and set default tools.

Controlling the look and feel of ArcReader using the Options dialog box

1. Click the Tools menu and click Options.
2. Click the General tab.
3. Set the startup options.
4. Click OK.

The changes will be in effect for current and future ArcReader sessions.



The appearance of the ArcReader splash screen and other settings can be controlled in the Options dialog box.

Looking at a map in Data view and Layout view

ArcReader provides two different ways to view a map: Data view and Layout view. Each view lets you look at and interact with the map in a specific way.

When you want to browse geographic data on your map, choose Data view. *Data view* displays the contents of a data frame.

A data frame can be thought of as a container that holds a map's data. A map can have one or many data frames. Data view only shows one data frame at a time. The displayed data frame is referred to as the active data frame. This view also hides all the map elements on the layout, such as titles, North arrows, and scale bars.

When you want to see the entire map page, use Layout view. In *Layout view*, you'll see a virtual page showing all the map elements and data frames.

Tip

Not all maps have Data view and Layout view

The map author may create the map with only one view. To see if both views are available, use the Map Properties dialog box.

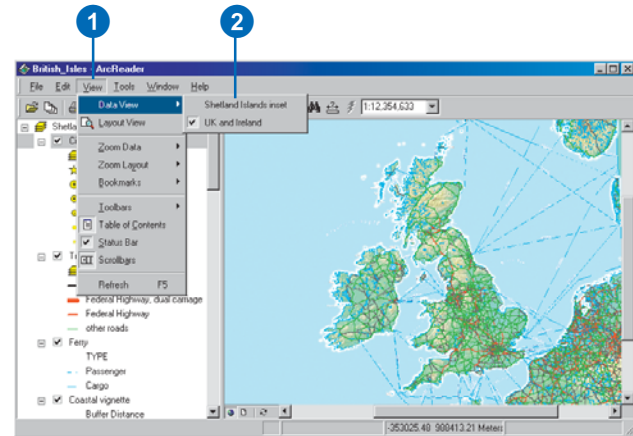
Switching to Data view

1. Click View and point to Data View.

The checked data frame is the active data frame.

2. Click a data frame.

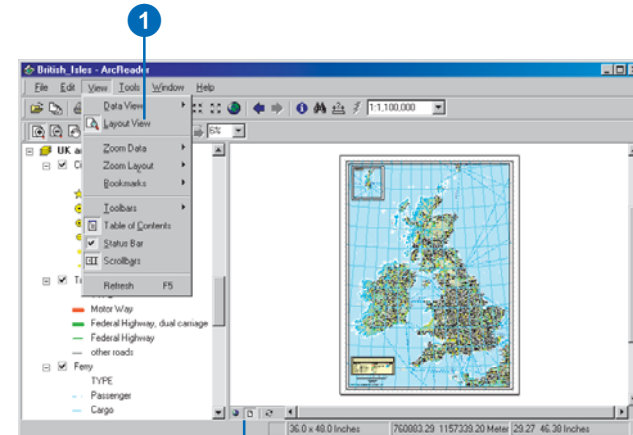
The selected data frame will become the active view.



Switching to Layout view

1. Click View and click Layout View.

ArcReader shows the entire layout.



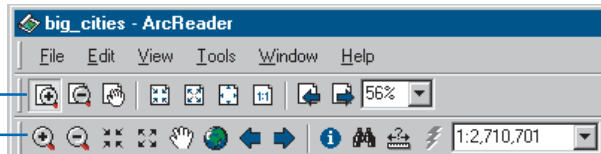
You can also use these buttons to quickly switch between Data view and Layout view.

Moving around on the map

As you work with a map, you can easily change how you view the data it contains. When browsing a map, you might want to pan and zoom around the data to investigate different areas and features.

There are two sets of tools for navigating the map: those on the Data toolbar and those on the Layout toolbar. Data tools are used for navigating the active data frame, and layout tools are used to navigate the page. These tools are also available by clicking the View menu or Tools menu.

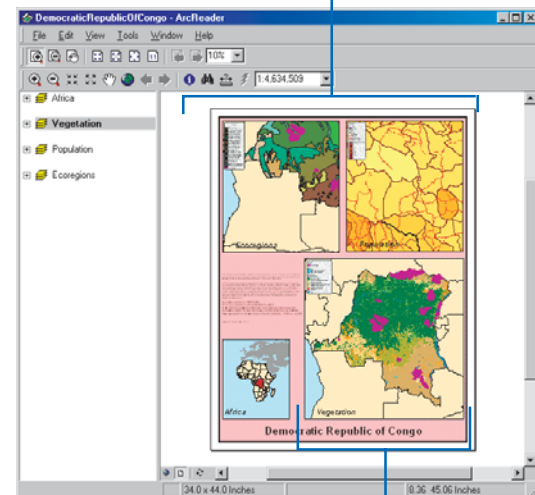
The Layout toolbar



The Data toolbar



The layout page



A data frame on the page

Use the data tools to interact with the data displayed in the active data frame.

Use the layout tools to interact with the data frame and map elements on the page. There are two toolbars available for browsing the map in Layout view. One set of commands is for browsing the data within the data frame, and the other set is for browsing the data frames and graphics on the layout page.

The following tasks outline how you can move around on the map using various tools.

Tip

Using the Pan and Zoom tools on the Data toolbar

In addition to being able to access the Pan and Zoom tools from the Tools menu, you can also click the tools on the Data toolbar.



Tip

Using Pan in the data frame

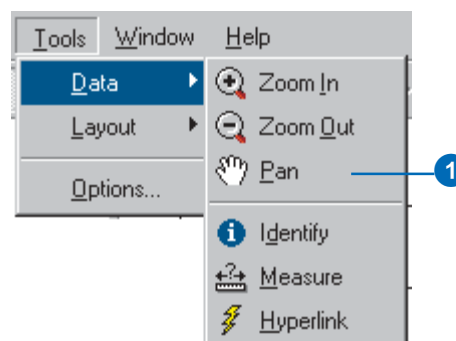
In addition to being able to zoom in and out to manipulate how you view the map or a data frame, you can also pan around the map. Click the Pan button or click Tools and click Pan, then click and drag the map around to adjust the view of the data.

Using Zoom in the data frame

1. Click Tools, point to Data, and click Zoom In.
2. Drag a box over the area to which you want to zoom in the data frame.

The area will be centered and enlarged on the screen.

You may also click a location to Zoom In. You can use Zoom Out to see more of the data in a data frame.



Tip

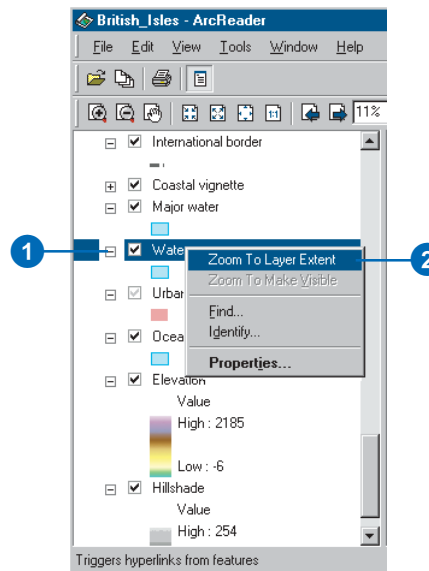
Why doesn't a layer draw when I move around the data frame?

The layer probably has a scale range set that prevents the layer from displaying on the map at certain scales. Right-click the layer and click Properties or Zoom To Make Visible to determine what the scale range is set to.

Zooming to the extent of a layer

1. Right-click the layer to which you want to zoom.
2. Click Zoom To Layer Extent.

ArcReader redraws to show the entire layer.



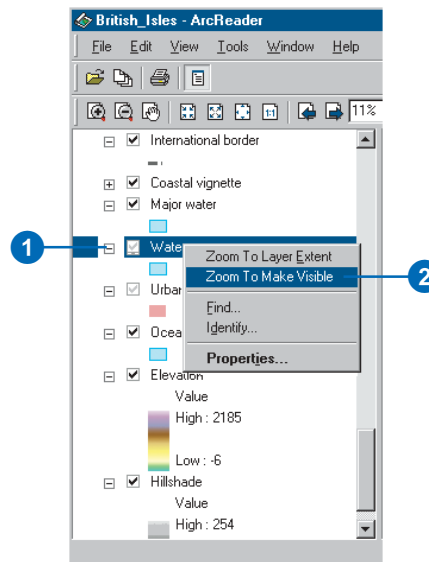
Zooming to make a scale-dependent layer visible

1. Right-click the scale-dependent layer to which you want to zoom.

Scale-dependent layers only draw at specific map scales.

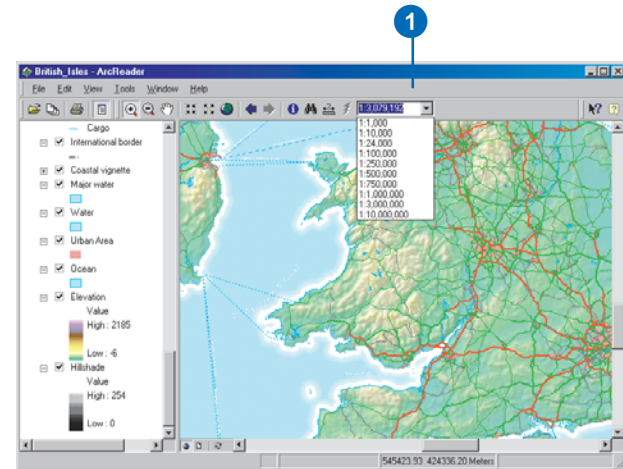
2. Click Zoom To Make Visible.

ArcReader zooms to a scale that will make the layer draw.



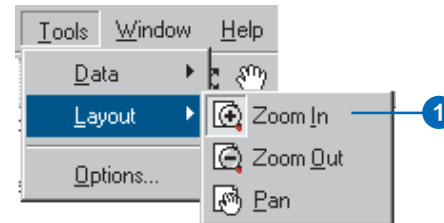
Zooming to a specific scale in the data frame

1. Type the desired scale in the text box or click a scale from the dropdown list.



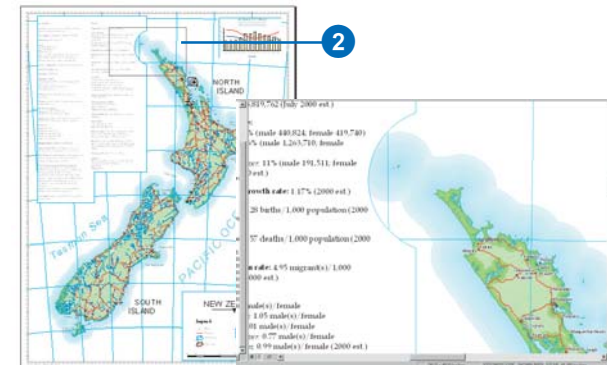
Zooming the layout

1. Click Tools, point to Layout, and click Zoom In. This allows you to zoom in on the map page.
2. Using the Zoom In tool, drag a box around the area of interest. The area will be centered and enlarged in the display window.



The extent of the data frame remains unchanged, and map elements appear larger.

Layout tools are only available while in Layout view. To see more of the page, use Zoom Out.



Using spatial bookmarks

A spatial bookmark identifies a predefined geographic location. Clicking on a bookmark zooms to that location. Bookmarks allow you to easily navigate to the areas of interest that have been defined by the map's author.

All bookmarks for the map are displayed in the bookmark list. If there are multiple data frames on the map, they will also be listed.

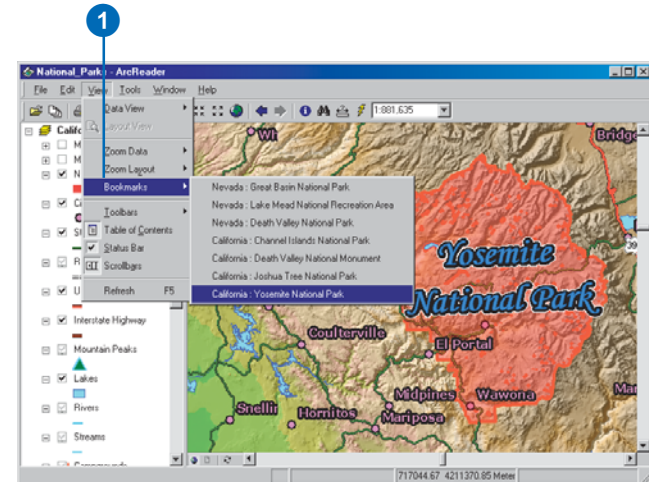
Tip

Reloading the map

Click the File menu and click Reload to see the map as it was originally published.

1. Click the View menu, point to Bookmarks, and click the name of the bookmark you want to use.

The predefined area displays.



The magnifier window

When you don't want to adjust your map display but you want to see things in greater detail, open the magnifier window.

The magnifier window works like a magnifying glass: as you pass the window over the data, you see a magnified view of the location under the window. Moving the window around does not affect the current map display.

Right-click the magnifier window to adjust the magnification.

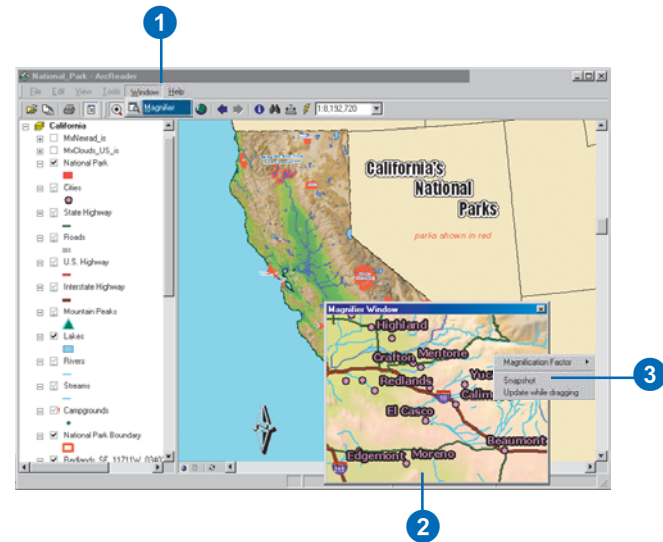
Tip

The magnifier window updates when you switch between Data and Layout view

The magnifier window is available in both Data and Layout views. When you switch views while the magnifier window is open, it will redraw to show the current view. The redraw occurs even if the magnifier is set to Snapshot mode.

Opening the magnifier window and setting the view

1. Click the Window menu and click Magnifier.
The magnifier window appears.
2. Drag the magnifier window over the data to see a magnified view.
3. Right-click inside the magnifier window to access different options.



Exploring and working with data on a map

Sometimes just looking at a map doesn't give you enough information to answer your question. You need to query the data to solve problems. ArcReader lets you explore the data on the map and get the information you need.

You can find features that have a particular characteristic or attribute, examine all the attributes of a particular layer, measure distances on the map, point to features to find out what they are, or follow a hyperlink to more information.

Tip

Finding features faster by narrowing the search

Use the Find tool, which has a search field, if you know exactly what you are looking for. The fewer fields you have to search, the quicker you will get results.

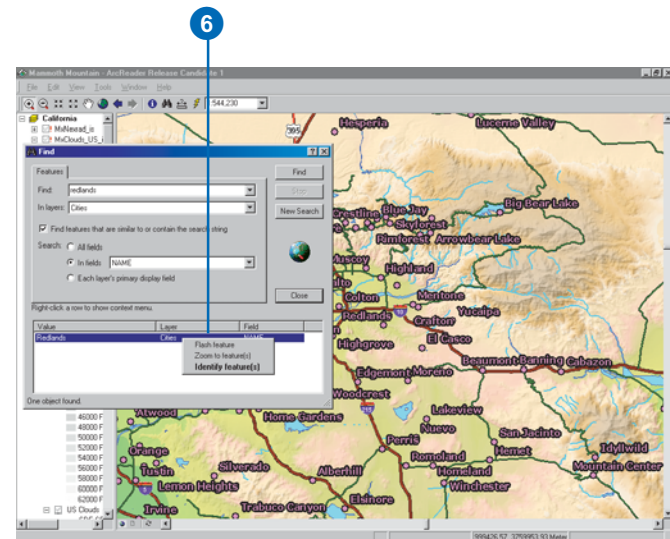
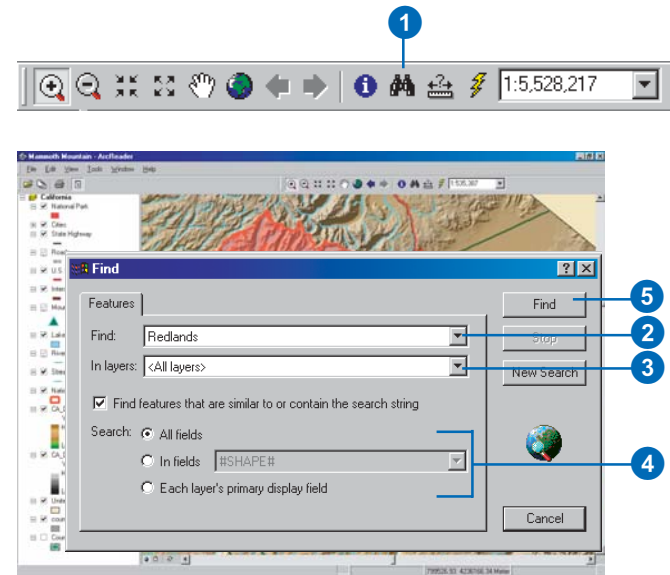
Tip

Accessing the Find tool

You can access the Find tool by right-clicking a layer in the table of contents, clicking the Find tool on the Data toolbar, or clicking the Edit menu and clicking Find.

Finding features with attribute values

1. Click the Find button.
2. Type the attribute value of interest in the Find text box.
3. Click the In layers dropdown arrow and click the layer you want to search.
4. Search for the attribute in all fields, in a specific field, or in the primary display field.
5. Click Find.
6. Right-click the found feature listed in the results window to Flash, Zoom to, or Identify the feature.



Tip

Accessing the Identify tool

The Identify tool can be accessed by right-clicking a layer in the table of contents and clicking Identify or by right-clicking the results in the Find dialog box. You can also click the Tools menu, point to Data, then click Identify.

Tip

Identifying a location

Identify shows the location of the mouse click. The Location box shows the feature location if you click a feature in the Identify tree. The x,y location is the inside centroid for polygons, midpoint for lines, and the actual location for points.

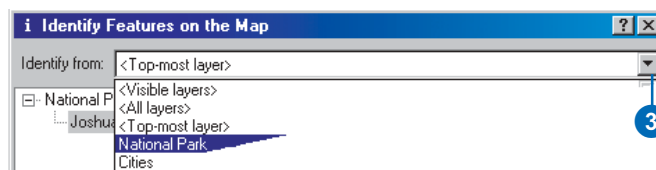
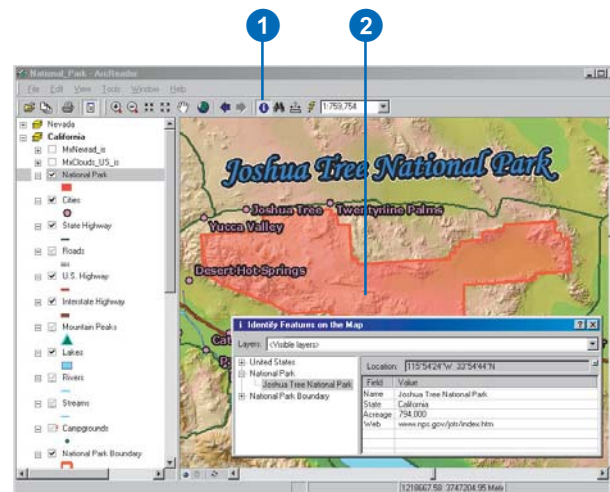
Tip

Identifying multiple features at once

You can identify multiple features at once by clicking and dragging a box around the features you want to identify.

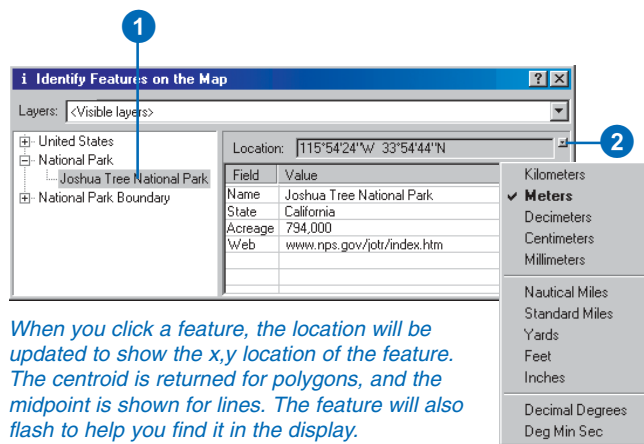
Identifying features by pointing at them

1. Click the Identify button.
An empty Identify dialog box appears.
2. Click the map feature you want to identify or drag a box around multiple features.
By default, information about the topmost layer will be shown in the Identify window.
3. Use the Identify from dropdown arrow to identify a feature in a specific layer.
Only features in that layer will show up in the Identify results window.



Getting the location of the identified feature

1. Click a feature in the Identify tree.
2. Click the small dropdown arrow to the right of the Location text box to select the location units of your choice.



When you click a feature, the location will be updated to show the x,y location of the feature. The centroid is returned for polygons, and the midpoint is shown for lines. The feature will also flash to help you find it in the display.

Tip

Copying the field values

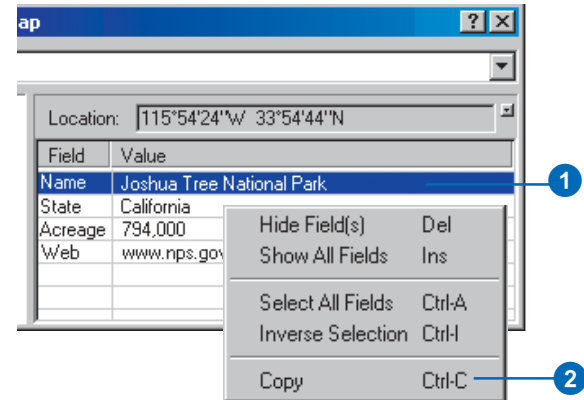
Right-click the feature in the Identify tree to copy the record. The layer name and its attributes will be copied.

Use the Options dialog box to control whether the layer name is included in the Copy command. The copied records can then be pasted into another application.

Copying attributes from the Identify window

1. Click an attribute in the Identify window.
2. Right-click the field and click Copy.

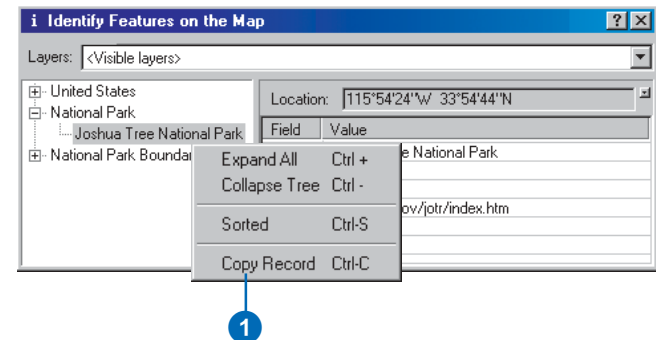
You can now paste the attribute into another software application.



Copying the entire record

1. Right-click the feature in the Identify tree and click Copy Record to copy the entire record.

The feature's record can now be pasted into another application.



Tip

The Measure tool

The Measure tool displays distance in the units of the data frame. These units are set by the map author and cannot be changed in ArcReader.

Tip

The Hyperlink tool

This tool will be unavailable if no hyperlinks have been defined by the map author.

There are three types of hyperlinks:

Document: When you click a feature with the Hyperlink tool, a document or file will be launched using the application with which that file type is currently associated.

URL: When you click a feature with the Hyperlink tool, a Web page will launch in the default browser.

Macro: Microsoft® Visual Basic® macros are not supported in ArcReader. The macros will not be available in the published map.

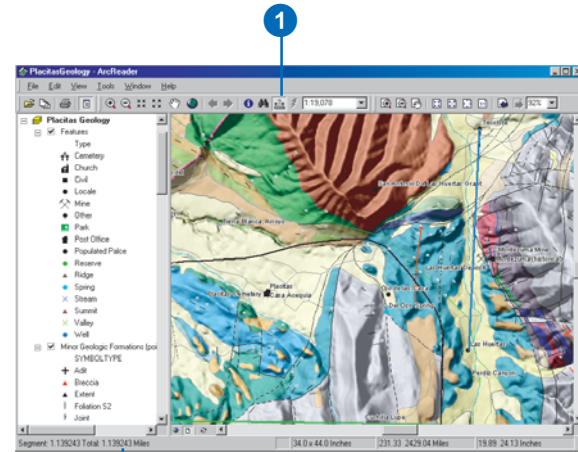
Tip

Controlling whether hyperlinks are drawn

You can control whether or not hyperlink symbols draw in ArcReader. Click the Tools menu, click Options, then click the Appearance tab. Check and uncheck the Draw Symbol check box to cause the hyperlinks to draw or not.

Measuring distance

1. Click the Measure button on the Data toolbar.
2. Click the map at the location you want to start measuring.
3. Move the pointer to the point to which you want to measure. If you would like to measure along the curve of a line, click along the line to add vertices.
4. Double-click to end the line.



The measurement displays here on the status bar.

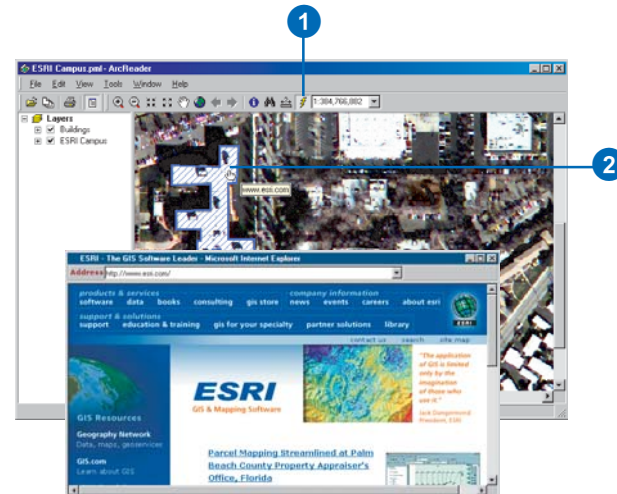
Accessing hyperlinked features

1. Click the Hyperlink button on the Tools toolbar.

Hyperlinked features are outlined in blue when using the Hyperlink tool. When you hover over the feature, the icon will change to a hand, and you will see a popup tip with the name of the target.

2. Click a hyperlinked feature.

The hyperlink will open. In this case, the hyperlink is an Internet Web page.



Printing

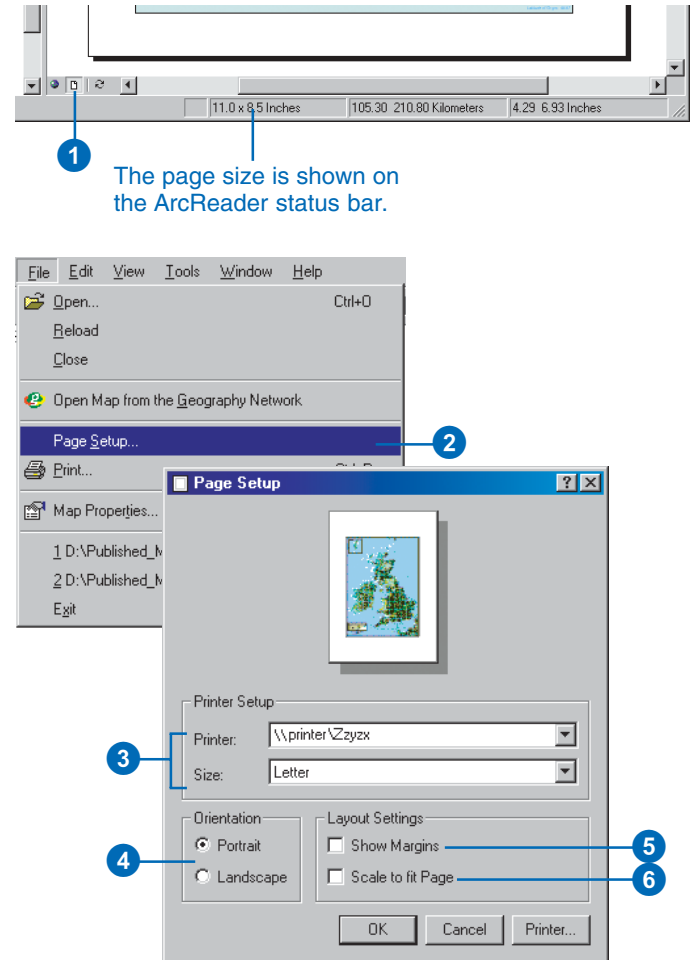
There are a few things to consider when printing from ArcReader. When printing from Layout view the entire page layout will be printed. If you are printing from Data view, the data will be printed just as it appears in the ArcReader display. The data will be scaled to fit the specified printer page.

The following pages outline some things that you should be aware of when printing, such as how to use Page Setup to determine the appropriate paper size, how to print a large map on a small page, and how to print from Data view.

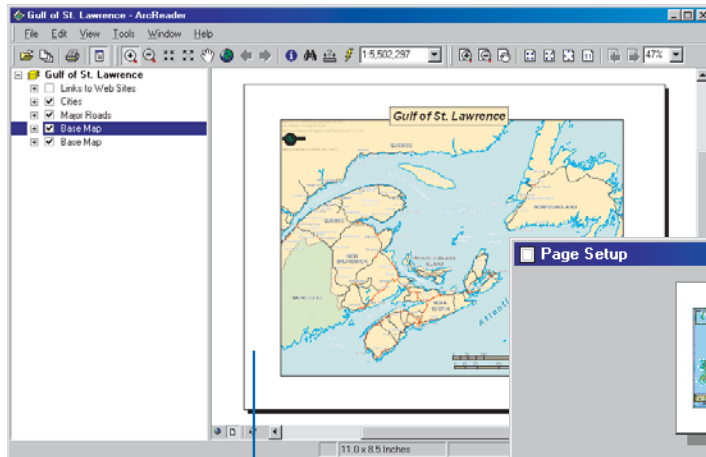
Showing margins

Before printing, it is important to know the published page size of the map you are working with.

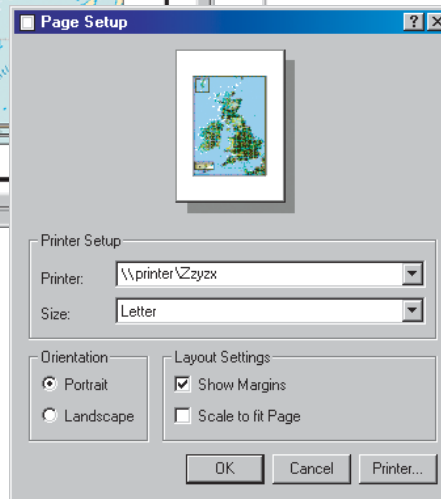
1. Click the Layout button.
2. Click the File menu and click Page Setup.
3. Choose your printer and the paper size.
4. Choose the desired orientation—Portrait or Landscape—for your map.
5. Check the Show Margins check box to see the printer margin in Layout view if you are unsure about the chosen paper size and orientation settings.
6. Check the Scale to fit Page check box if the map you are working with has a page size that is too large for your printer, allowing you to print the map to the paper size of your choice.



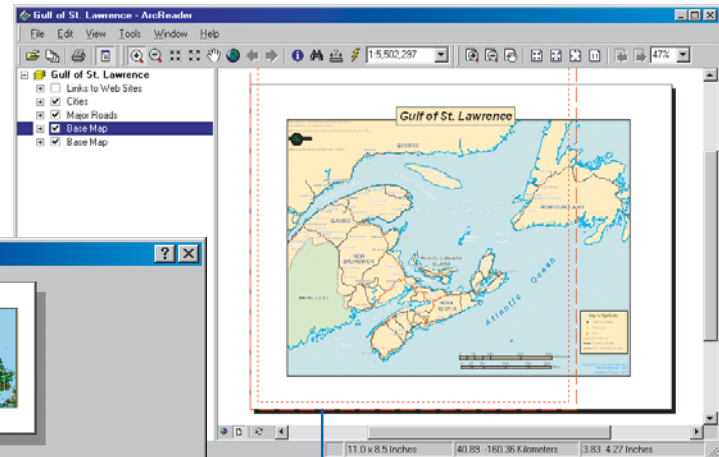
Using Page Setup to determine the appropriate paper size



What you see before checking the Show Margins check box in Page Setup



Notice that Landscape would be a more appropriate setting for this map. Only the portions of the map within the red rectangle will print on the printer page (as shown on the lower right).



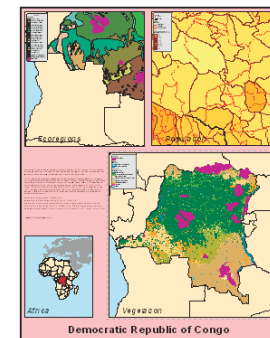
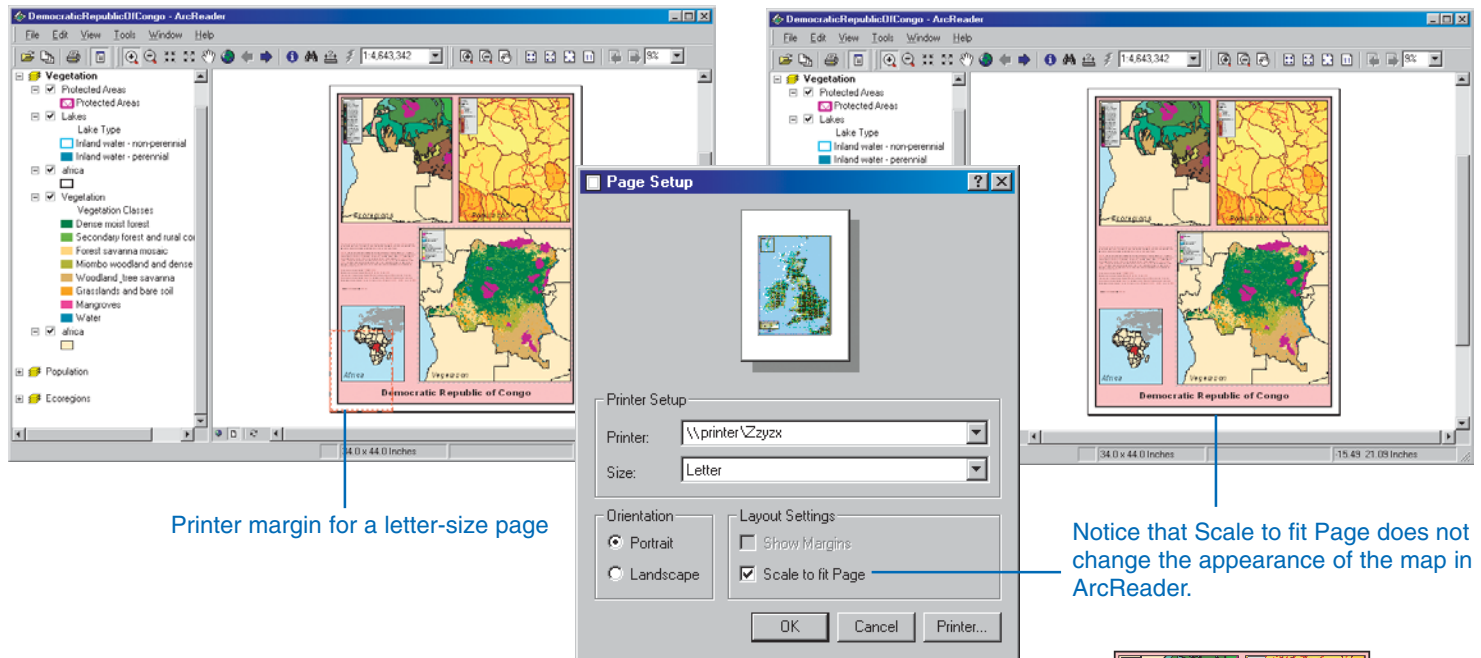
What you see after checking the Show Margins check box in Page Setup



The printed page

Printing a large map on a small page

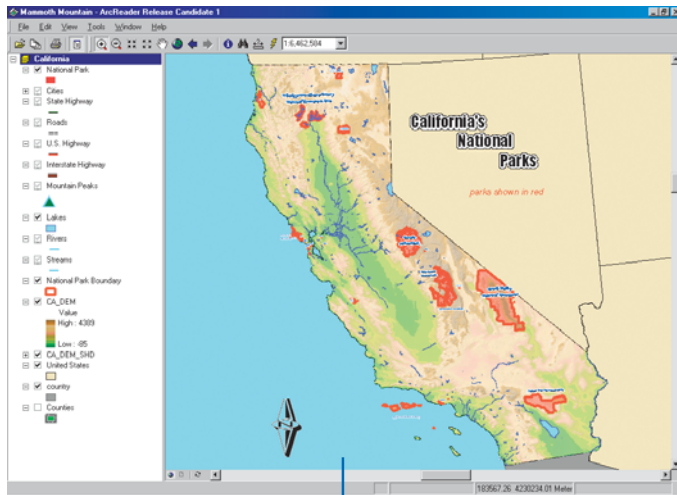
Check Scale to fit Page on the Page Setup dialog box when the published map size is too large to fit on the available printer.



The printed page

Printing from Data view

The portion of the map in the display area will be scaled to fit the selected printer page. Printing from Data view always scales the map to fit the page.



The map displayed in Data view



Printing from Data view scales the data in the ArcReader display window to fit the printer page.

Printing from Layout view

You can print your map from Layout view, but it is important to keep in mind that the map will not scale to fit the printer page. If you are going to print from Layout view, you need to click the File menu, click Page Setup, and check Scale to fit Page.

Getting help

You can quickly get help with the buttons and menu commands you see on the interface in ArcReader. Hover over a command or button with the mouse pointer and press Shift+F1 on your keyboard.

You can also get help in some dialog boxes. When you click the What's This? button in the upper-right corner of the dialog box and click an item in that dialog box, a description of the item pops up.

Much of the information in this book is also available in the online Help system. The Help topics are organized around the main tasks you want to complete as well as the concepts behind the tasks.

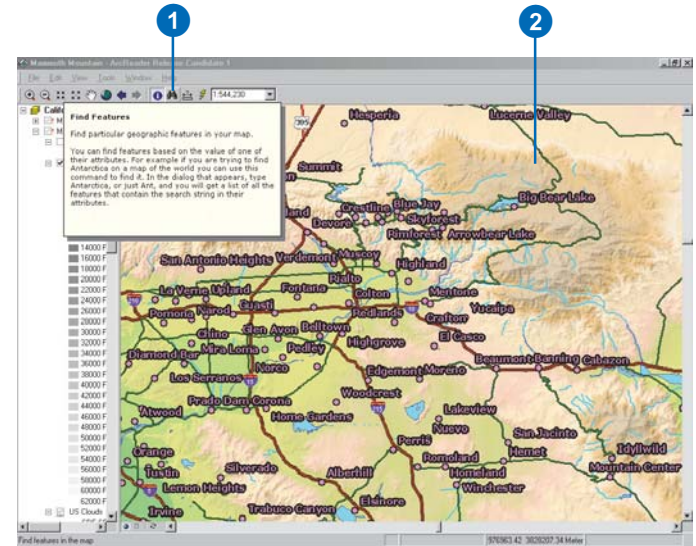
To access the online Help for ArcReader, click the Help menu and click ArcReader Help, or press F1.

Getting help in the ArcReader window

1. Move the pointer over a button or command and press Shift+F1 on your keyboard.

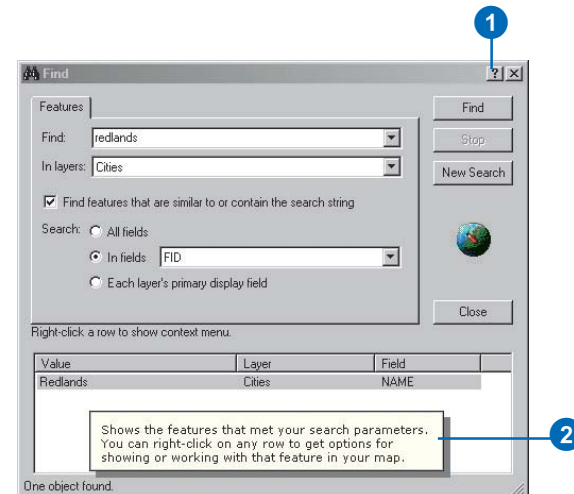
Help text appears.

2. Click anywhere on the screen to close the Help description box.



Getting help in a dialog box

1. Click the What's This? button.
2. With the Help pointer, click the item in the dialog box about which you want more information.
3. Click anywhere on the screen to close the Help description box.



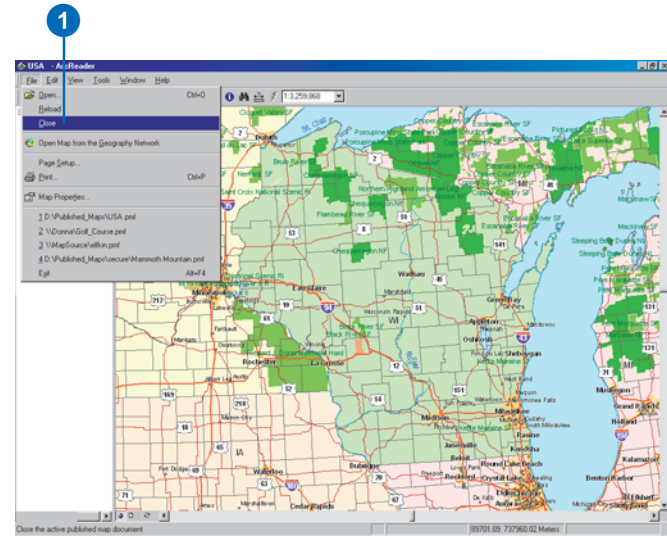
Closing and exiting

To remove the currently loaded map from ArcReader, close the map. To close the map and exit ArcReader, use the Exit command on the Tools menu.

Closing an opened map

1. Click the File menu and click Close.

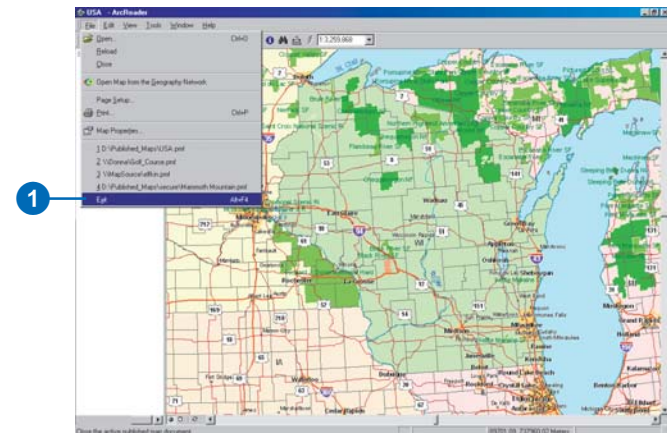
Opening a new map also closes the current map.



Closing ArcReader

1. Click the File menu and click Exit.

The ArcReader session is ended.



ArcGIS Publisher basics

4

IN THIS CHAPTER

- **Starting ArcGIS Publisher**
- **Preparing maps for publishing in ArcMap**
- **Creating a map to share on a computer network**
- **Creating a map to distribute with data**
- **Creating a map with Internet data**
- **Using Publisher settings**
- **The Map Contents Summary dialog box**
- **Sharing your maps**

ArcGIS Publisher is an optional extension you can install on ArcGIS Desktop. Publisher allows you to save maps for distribution and sharing with others. Publisher converts ArcMap map documents (.mxd) into the published map format (.pmf) used with ArcReader. This chapter describes the basics of using Publisher, such as how to prepare maps for publishing, how to control what functionality the map is published with, and how to share maps.

A quick-start ArcGIS Publisher tutorial follows this chapter; it will help you quickly learn how to use Publisher. It shows you how to publish a map and how to customize Publisher settings. Completing the tutorial is a fast way to learn some of what the ArcGIS Publisher extension has to offer, and it is a good way to learn how to effectively use Publisher.

Starting ArcGIS Publisher

ArcGIS Publisher is an extension to ArcMap. You must enable and add the Publisher toolbar to ArcMap to work with Publisher. Any .mxd file can be converted to a published map file using Publisher.

Tip

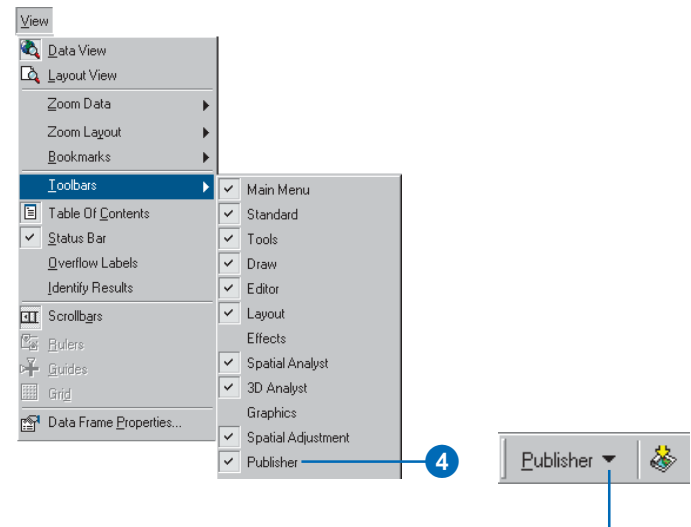
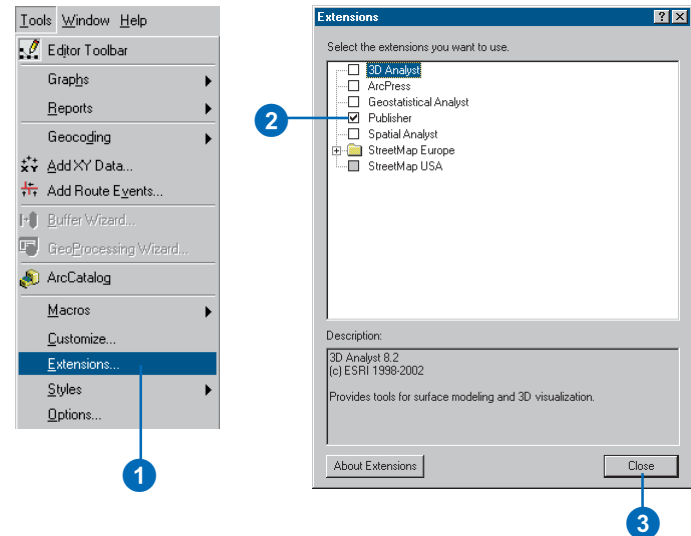
Why is the Publisher toolbar unavailable?

The Publisher toolbar may be unavailable for several reasons. Remember that the Publisher toolbar must be turned on in the extension manager. You also need an ArcGIS Publisher license to use Publisher.

Enabling and adding the Publisher toolbar

1. Click the Tools menu in ArcMap and click Extensions.
2. Check Publisher in the Extensions dialog box.
3. Click Close.
4. Click the View menu, point to Toolbars, and click Publisher.

The Publisher toolbar will be added to ArcMap.



The Publisher toolbar is added to ArcMap

Preparing maps for publishing in ArcMap

When publishing a map it is important to consider the purpose of the map and how the map will be used in ArcReader. It is also important to recognize what is in the map and how ArcMap settings, as well as Publisher settings, will affect how the output is displayed.

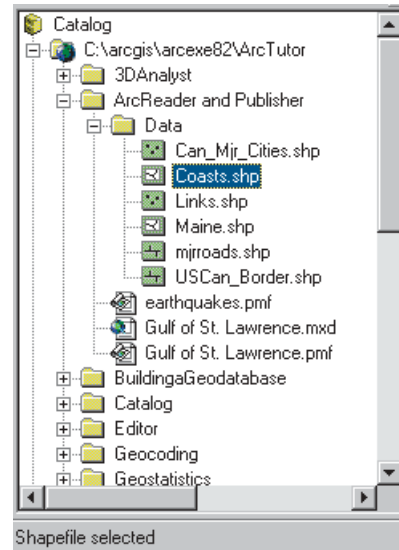
Accessing data

ArcReader references data sources in the same manner that ArcMap does. The data source information in the map document is also stored in the published map. Because ArcReader will be using the same method of connecting to the data, it is important to ensure that the ArcReader user will have access to the data.

In ArcMap, use the Map Properties dialog box and the Source tab on the Layer Properties dialog box to set data sources. You can also click the Source tab on the table of contents to get a quick look at the current data source connections for a map.

You need to choose the right data source connection method for your published map. What connection method you use depends on how the map will be used. For a map that is going to be distributed on a computer network, you should create the map with universal naming convention (UNC) data paths or network server-based data. If you plan to deliver the data with the published map (perhaps putting everything on digital media, such as a CD), you should use relative paths to connect to the data. You may also want to consider using Internet-served data. If you do this, anyone with a Geography NetworkSM connection will be able to use the map in ArcReader.

Delivering data with the map



The graphic above shows a directory structure in ArcCatalogTM. The Gulf of St. Lawrence.pmf file references C:\ArcReader and Publisher\Data\Coasts.shp data. If you were to distribute data with the published map, you would create the map using relative paths. In this case the path would be ...Data\Coasts.shp for the data in the map. ArcMap will not show the path in this manner, but if you choose Store relative path names, this is the path that will be stored in the map. As long as the published map stays relative to the data, the map layers will be accessible in ArcReader. If you were to put the map and data on a CD, you would place the Data directory and everything in it on disk.

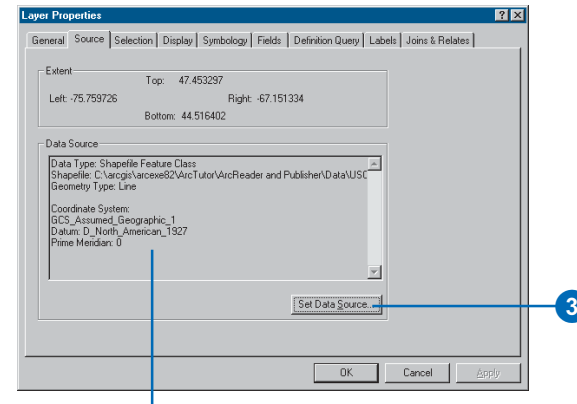
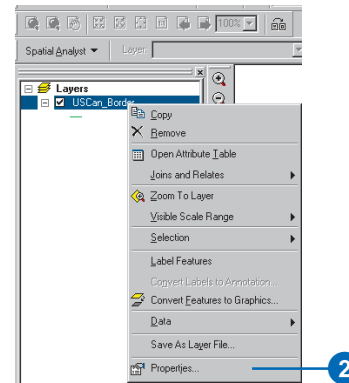
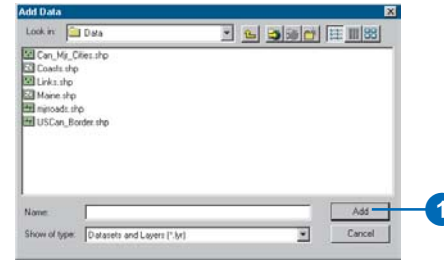
The following tasks demonstrate how to store data source information in a map for sharing on a network.

Creating a map to share on a computer network

If you are using ArcSDE™ or Internet-served data, the published map will work for all ArcReader users who have access to the servers. For file-based data you will need to create maps that store the location of the data on the network. If you click a drive letter when you add data from your computer, a local path to the data will be stored in the map. To make the map usable on another computer, you will want to store the UNC pathname in the map.

Converting local drive paths to UNC paths

1. Open ArcMap, click the Add Data button, then click the Add button to add data from a local drive.
2. Right-click the layer in the table of contents and click Properties.
3. Click the Source tab and click Set Data Source in the Layer Properties dialog box. ►

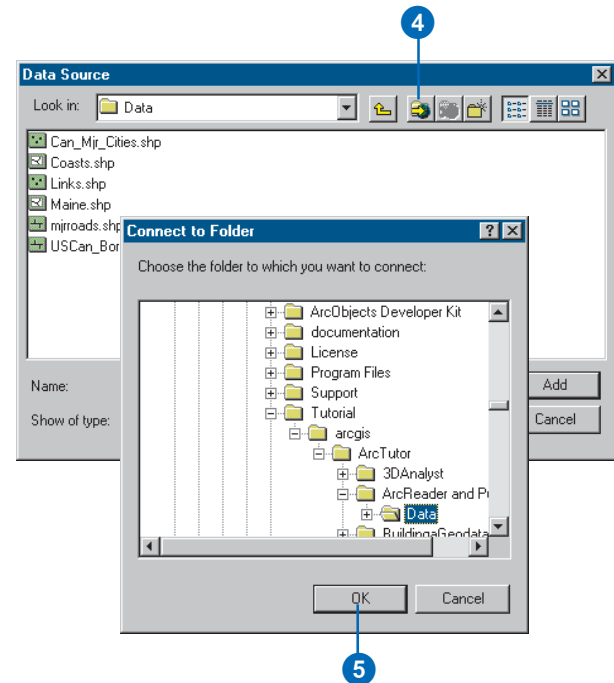


Notice the current data source is local.

4. Click the Connect To Folder button.
5. Double-click Network Neighborhood on the Connect to Folder dialog box, browse to the directory on the computer that contains the data, then click OK.
6. Click Add in the Data Source dialog box to close it and get back to the Layer Properties dialog box.

In the Layer Properties dialog box, you will now see that the UNC pathname is stored in the map.

The UNC pathname will be published in the map, and all computers on the network with access to the directory will be able to use the map in ArcReader.



The UNC pathname is stored in the map.

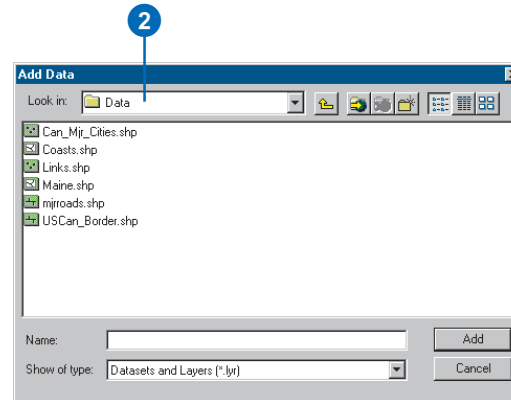
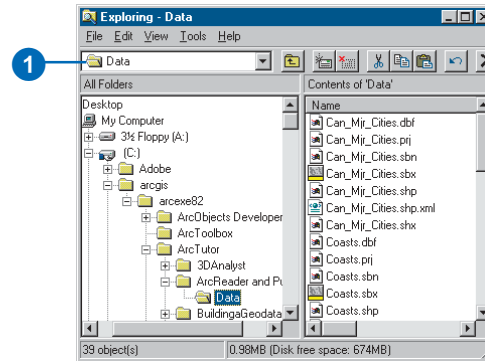


Creating a map to distribute with data

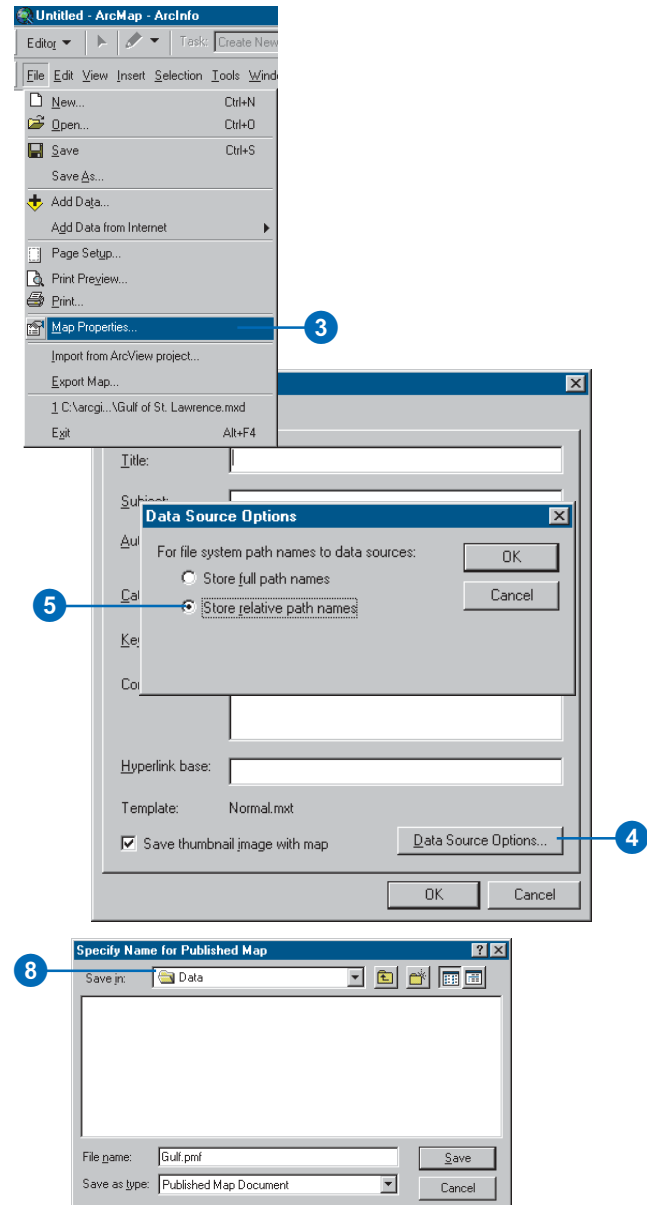
If you plan to distribute data with the map, you need to use relative paths when you create the map. When using relative paths, the map will be able to access the data as long as it stays in the same location relative to the data.

Creating a map with relative path data

1. Open Windows Explorer and put all of the data that will be used to create the map into the same folder.
2. Click the Add Data button and add your data to the map.



3. Click the File menu and click Map Properties.
4. Click Data Source Options on the Map Properties dialog box.
5. Click Store relative path names in the Data Source Options dialog box, then click OK.
6. Click OK in the Properties dialog box.
7. Click the Publisher menu and click Publish Map.
8. Publish or save the map in a directory that has the same parent directory as the data in the map. The data in the map will be referenced correctly as long as the map and data stay in the same relative location to one another. Send the whole directory to anyone that will be using the map.



Creating a map with Internet data

There is nothing complex about publishing Internet data. On the publishing side you only need to add data from the Internet. The user of the published map will need an Internet connection to see the data in the map.

Tip

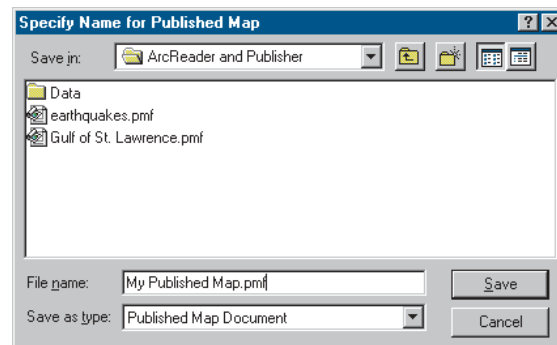
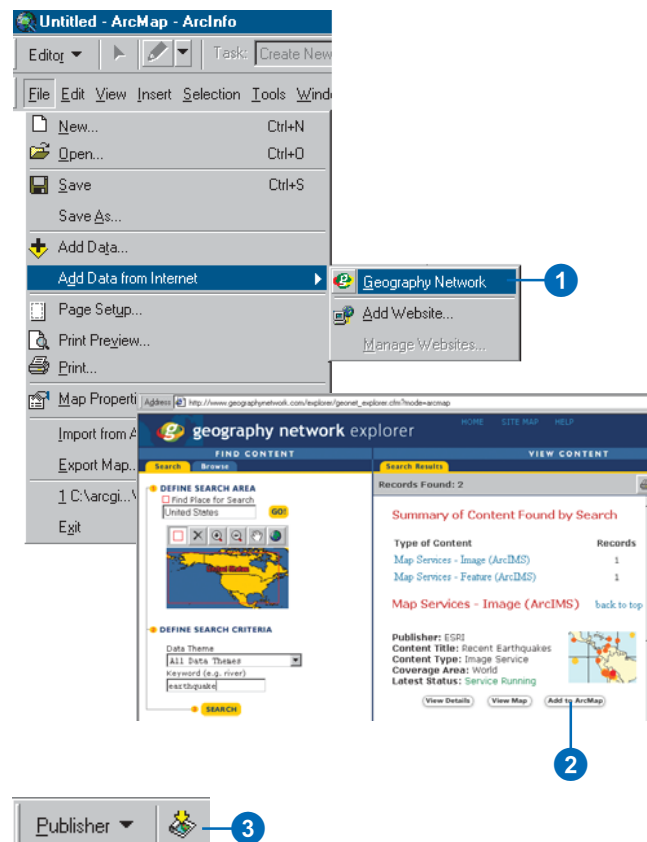
ArcReader can open maps from the Geography Network

Published maps can be placed on the Geography Network and opened by any ArcReader user. For more information on sharing maps on the Internet, go to www.geographynetwork.com.

Creating a map with Internet data

1. Click the File menu, point to Add Data from Internet, and click Geography Network.
2. Search for Geography Network data and add it to ArcMap.
3. Click the Publish Map button on the Publisher menu bar and enter the output location.

The published map can be sent to and used by anyone who has ArcReader and a Geography Network connection.



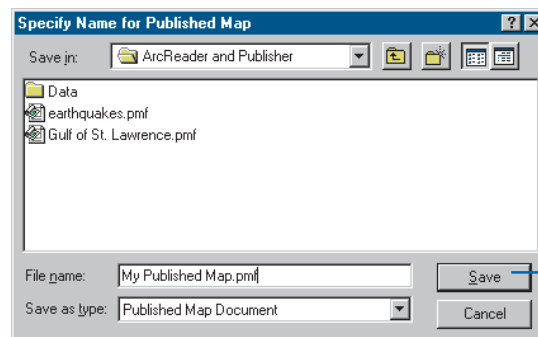
Using Publisher settings

Publishing a map allows it to be used in ArcReader. By default, what you see in ArcMap is what you will see in ArcReader. However, there are some options available that allow you to control how the map will be viewed and used in ArcReader. Using Publisher, you can restrict the view to a specific data frame, limit the use of some commands, or even specify a password to protect the map. The settings are designed to give the map author control over how the map is viewed and how the data is explored. The following tasks show you how to publish a map with different options or restricted functionality.

Publishing a map with default settings

1. Open a map document in ArcMap.
2. Click the Publisher menu.
3. Click Publish Map.
4. Choose the output location for your published map and click Save.

A published map will be created that will look the same in ArcReader as it does in ArcMap.

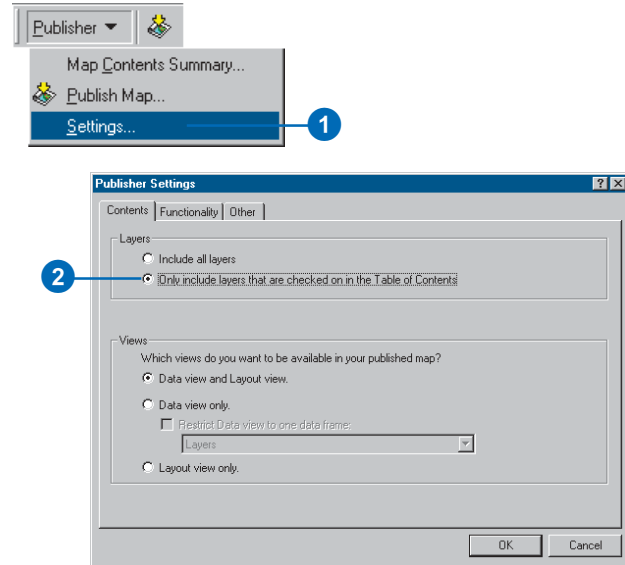


Publishing a map with just the visible layers

1. Click Publisher and click Settings.
2. Click Only include layers that are checked on in the Table of Contents.

This setting allows you to choose specific layers for publishing in a map without removing the layers from the map.

3. Click OK.
4. Click Publisher and click Publish Map.

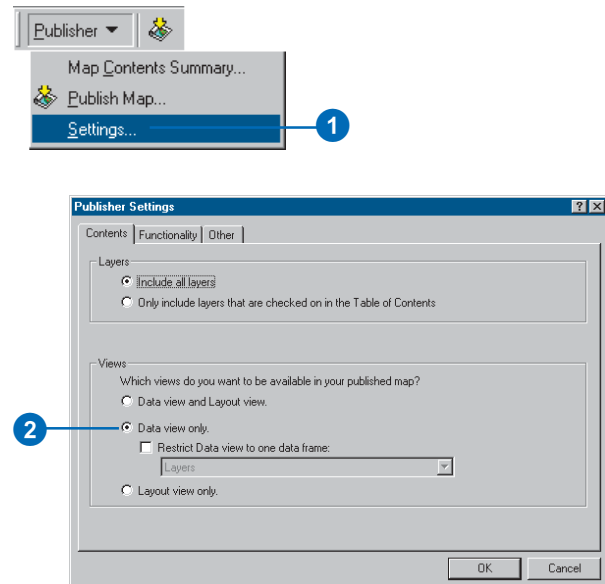


Publishing a map with just the Data view enabled

1. Click Publisher and click Settings.
2. Click the Contents tab in the Publisher Settings dialog box and click Data view only.

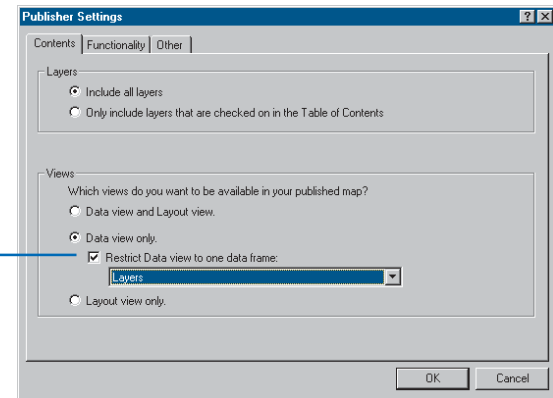
Only the data frames will be viewable in ArcReader. That means the map's page layout elements will not be included in the published map and Layout view will be unavailable.

If you want, you can also choose the data frame that will be visible in ArcReader. ►



3. Check the Restrict Data view to one data frame check box and choose a data frame from the dropdown list to publish one specific data frame. ArcReader will not be able to view the data frame in Layout view.
4. Click OK.
5. Click the Publisher menu and click Publish Map.

3

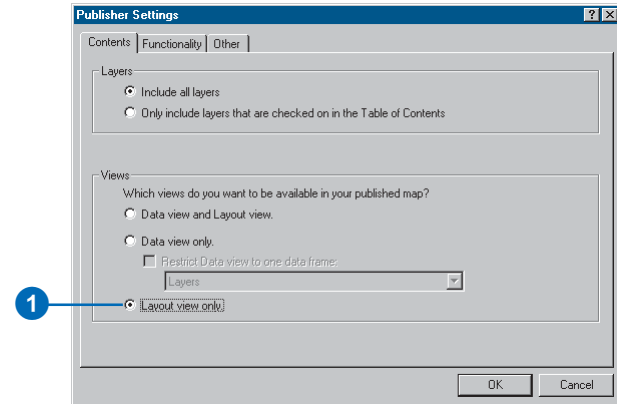


Publishing just the Layout view

1. Click Layout view only in the Publisher Settings dialog box.

Only the Layout view will be available in ArcReader. It will not be possible to view the map in Data view.

2. Click OK.
3. Click Publisher and click Publish Map.

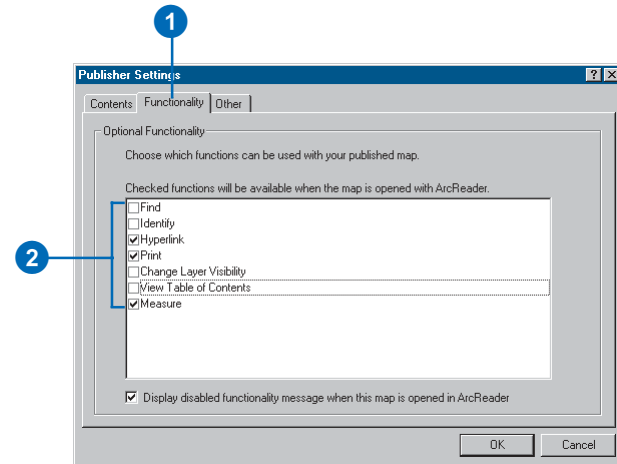


Disabling ArcReader commands and tools

1. Click Publisher, click Settings, then click the Functionality tab.
2. Uncheck the commands and tools in the list that will be disabled in ArcReader, then click OK.

When the map is opened, a message will appear telling the ArcReader user that some functionality has been disabled. To suppress this message, uncheck the Display disabled functionality message when this map is opened in ArcReader check box before publishing the map.

3. Click Publisher and click Publish Map.



Tip

You can open published maps that contain secure layers with or without a password.

By default, maps containing secure layers will prompt the ArcReader user for the password. Optionally, you can turn off password protection by including the password with the layer when the map is published.

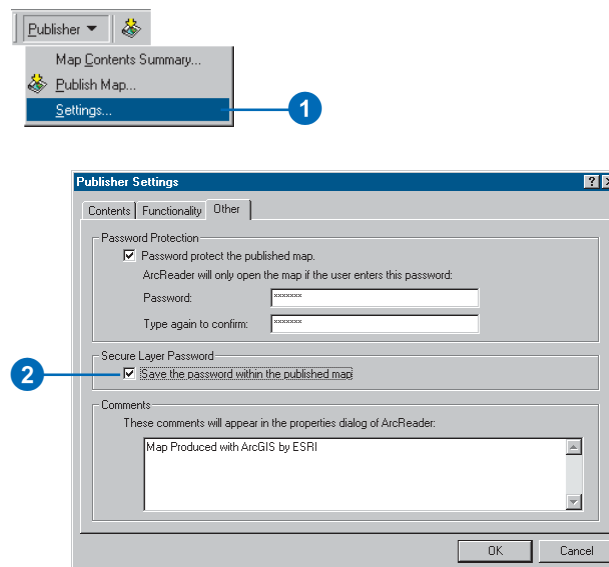
Including secure-layer passwords

1. Click the Publisher menu and click Settings.

The Publisher Settings dialog box appears.

2. Click the Other tab. Check the Save the password within the published map check box.
3. Click OK.

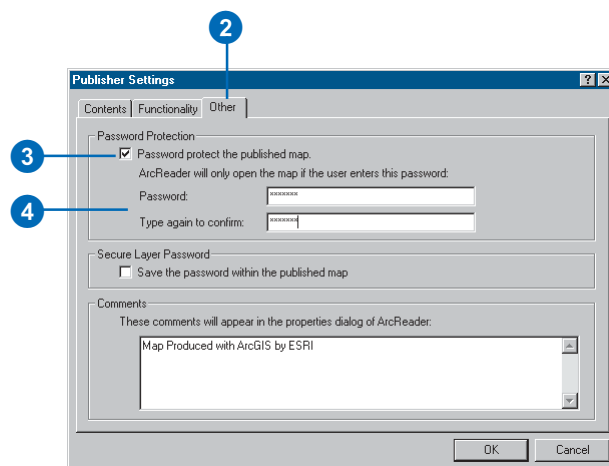
Secure data requires a password to be entered when it is added to ArcMap. Use this setting to store secure-layer passwords in the published map if you want the ArcReader user to see the secure layers without entering a password.



Protecting published maps with a password

1. Click the Publisher menu and click Settings.
2. Click the Other tab in the Publisher Settings dialog box.
3. Check the Password protect the published map check box.
4. Type in a password and confirm the password.
5. Click OK.

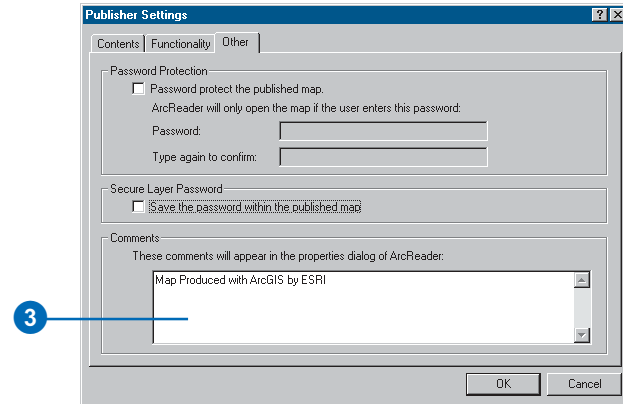
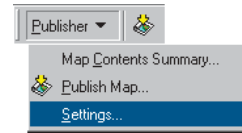
ArcReader requires the password to open the map.



Adding comments to publish with the map

1. Click the Publisher menu and click Settings.
2. Click the Other tab in the Publisher Settings dialog box.
3. Type comments into the Comments text box.
4. Click OK.

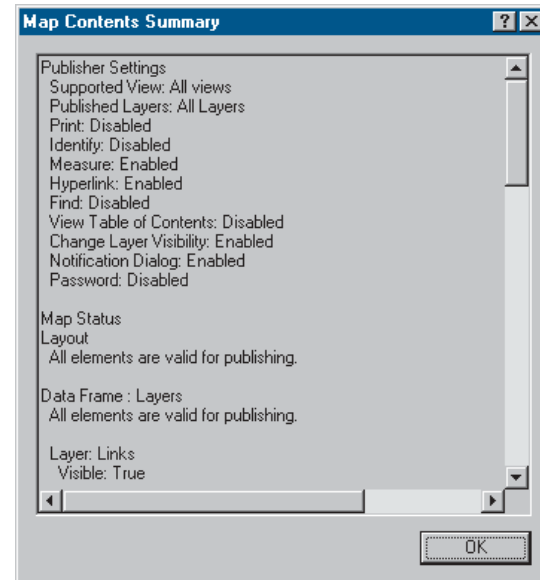
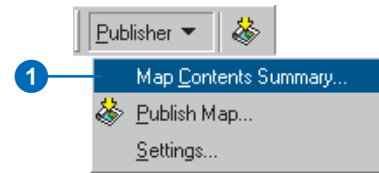
ArcReader users will be able to see the comments in the ArcReader Map Properties dialog box.



The Map Contents Summary dialog box

The Map Contents Summary dialog box contains information about publisher settings, map properties, and layer properties. You can use the information in the dialog box to determine how the map will be published. For example, if you have decided to only include visible layers in your map, only the visible layers will be listed in the Map Contents Summary information. You can also check the data source information that will be put into the published map in the Map Contents Summary dialog box.

1. Click Publisher and click Map Contents Summary.
The Map Contents Summary dialog box appears.



The Map Contents Summary dialog box shows you the parameters that control how the map will be published.

Sharing your maps

Once you have created your published map, you can share it with ArcReader users and serve it using ArcIMS®.

Keep in mind that you must ensure access to the data sources when you share your map. For file-based data sources, be sure your users can access the data for each layer. For multiuser database management system data, ensure your users have database access. For ArcIMS layers, ensure the server is available to your users. For more information on choosing and setting data source connections, see 'Preparing maps for publishing in ArcMap' in this chapter.

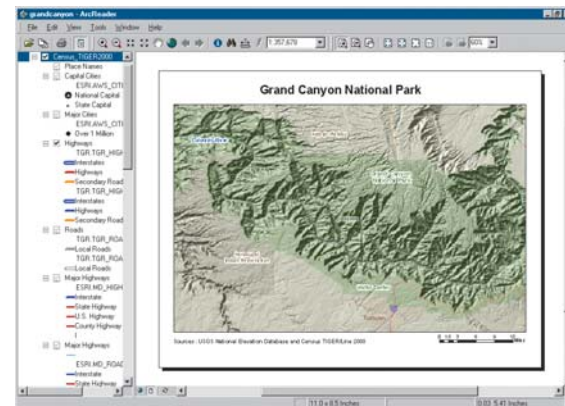
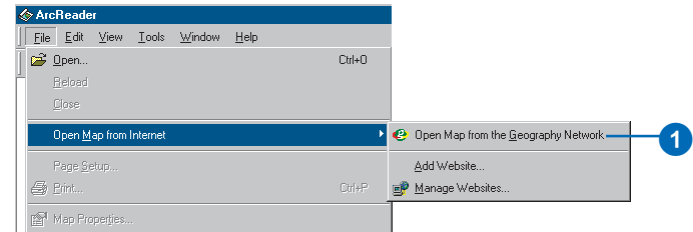
Tip

Adding Web sites to your map other than the Geography Network

If you have another Web site that you would like to access data from, you can do that. Click the File menu, point to Open Map from Internet, then click Add Website. Type the Web site's URL and click OK. You can access the Web site by clicking the File menu, pointing to Open Map from Internet, then clicking the Web site you added. You can remove Web sites and rename them by clicking Manage Websites.

Opening maps shared on the Geography Network with ArcReader

1. Click the File menu in ArcReader, point to Open Map from Internet, then click Open Map from the Geography Network.
2. Search for a map and add it to ArcReader.



ArcGIS Publisher tutorial

5

IN THIS CHAPTER

- **Exercise 1: Publishing a map**
- **Exercise 2: Customizing ArcGIS Publisher settings**
- **Exercise 3: Using ArcGIS Publisher security settings**

The best way to learn ArcGIS Publisher is to try it yourself. This tutorial guides you through the process of converting your ArcMap map document into a published map you can use in ArcReader.

Exercise 1 shows you how to publish a map as well as how to get help with Publisher.

Exercise 2 walks you through different ways that you can publish a map. For example, you can decide what functionality is included with your map or specify whether the published map can be viewed in Data view, Layout view, or both.

Exercise 3 shows you how to publish a map that is password protected.

Each exercise in this tutorial takes about 10–15 minutes to complete. You have the option of working through the entire tutorial at once or completing each exercise one at a time.

Before you begin, install Publisher and the ArcReader tutorial data. To install the data, run the Tutorial setup during the ArcGIS Desktop installation or independently. For more information on how to install tutorial data, look at the ArcGIS Desktop installation guide for your platform.

Exercise 1: Publishing a map

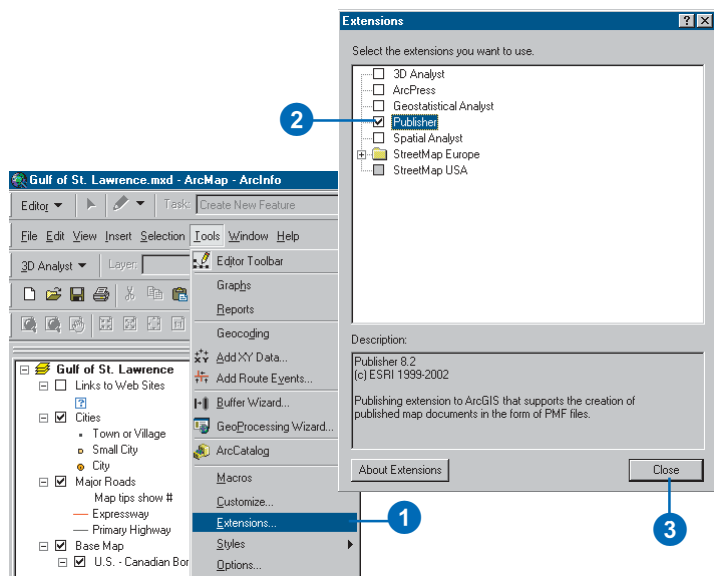
Choosing a map to publish

This exercise uses the Gulf of St. Lawrence.mxd file located in the ArcReader tutorial data. However, it is possible to do this exercise with any map document.

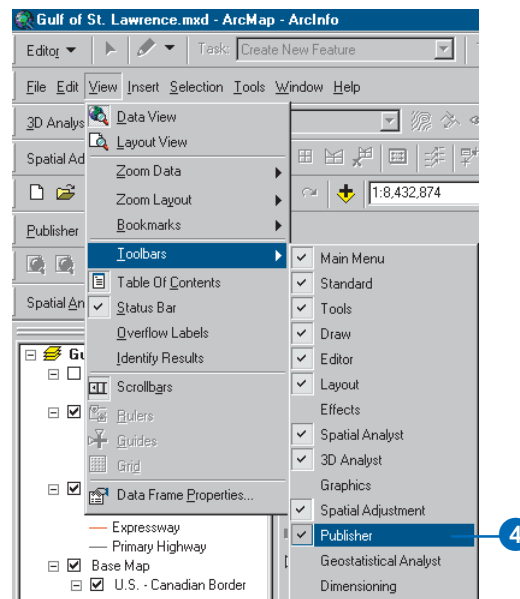
1. Click Start, point to Programs, point to ArcGIS, then click ArcMap.
2. Open the Gulf of St. Lawrence.mxd file (located in the \ArcTutor\ArcReader and Publisher folder).

Enabling and loading the Publisher toolbar

1. Click the Tools menu and click Extensions.
2. Check Publisher in the Extensions dialog box.
3. Click Close.



4. Click View, point to Toolbars, and click Publisher.



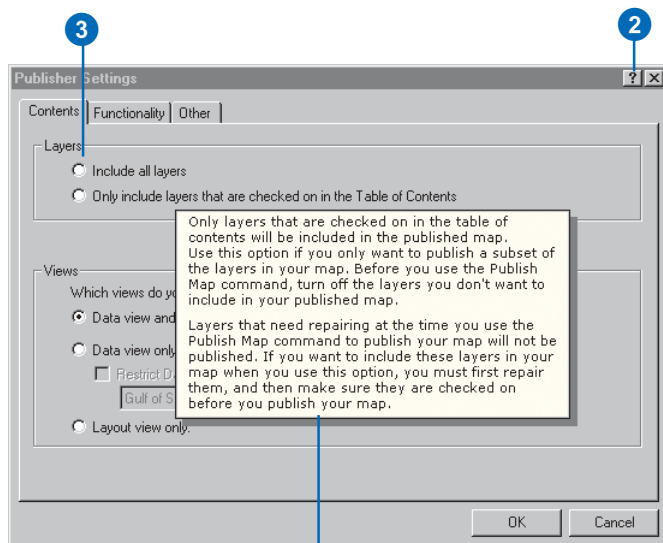
The Publisher toolbar appears.



Using context-sensitive help to get more information about Publisher

Context-sensitive help provides information about parts of the application interface. Click the Help button or press Shift+F1 while holding the pointer over the command you would like more information about.

1. Click the Publisher menu and click Settings.
2. Click the Help button (the small question mark next to the Close button).
3. Click the option, button, or command you want more information about.
4. Click Cancel.



Context-sensitive help

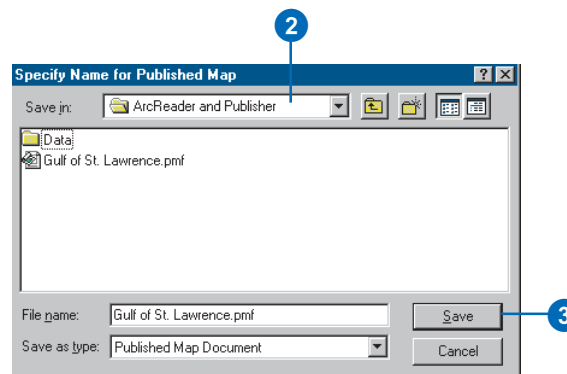
Publishing a map using the default settings

1. Click Publisher and click Publish Map.
2. Use the file browser to name and select the output location for the published map.



3. Click Save.

You have just published a map.



Viewing the map in ArcReader

Please note that ArcReader is installed with a Complete installation of ArcGIS Desktop. If you did not choose to add ArcReader during the initial installation, it can be added later. Please refer to the ArcGIS Desktop installation guide located in the Documentation folder on the CD.

After you have published a map, it's a good idea to open it in ArcReader to ensure that the map is published as expected.

1. Click Start, point to Programs, point to ArcGIS, then click ArcReader.
2. Click File and click Open.

The Select Published Map Document dialog box appears.

3. Navigate to the directory where the map was saved.
4. Double-click to open your published map.

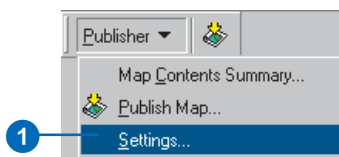
In this exercise, you learned how to set up a map to publish using ArcGIS Publisher. In the next exercise, you will learn how you can customize ArcGIS Publisher settings in order to publish your map exactly the way you want it.

Exercise 2: Customizing ArcGIS Publisher settings

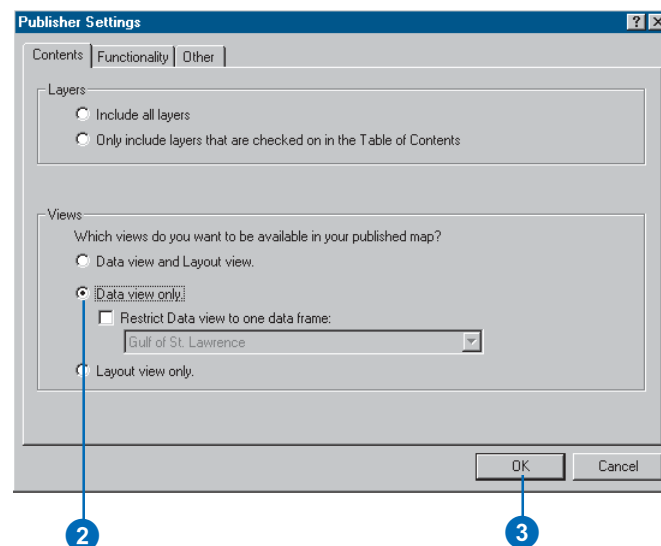
Publisher lets you adjust the settings of your map when you publish it. Having control over the way your map is published serves a variety of purposes, from making it easier for ArcReader users to interact with a complex map to protecting sensitive data. Selecting the proper settings can help make the map more useful for its intended audience.

Publishing a map in Data view only

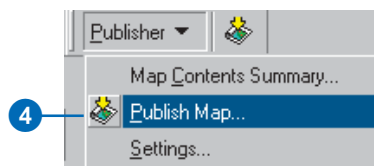
1. Click the Publisher menu and click Settings.



2. Click the Contents tab and click the Data view only button.
3. Click OK.



4. Click Publisher and click Publish Map.



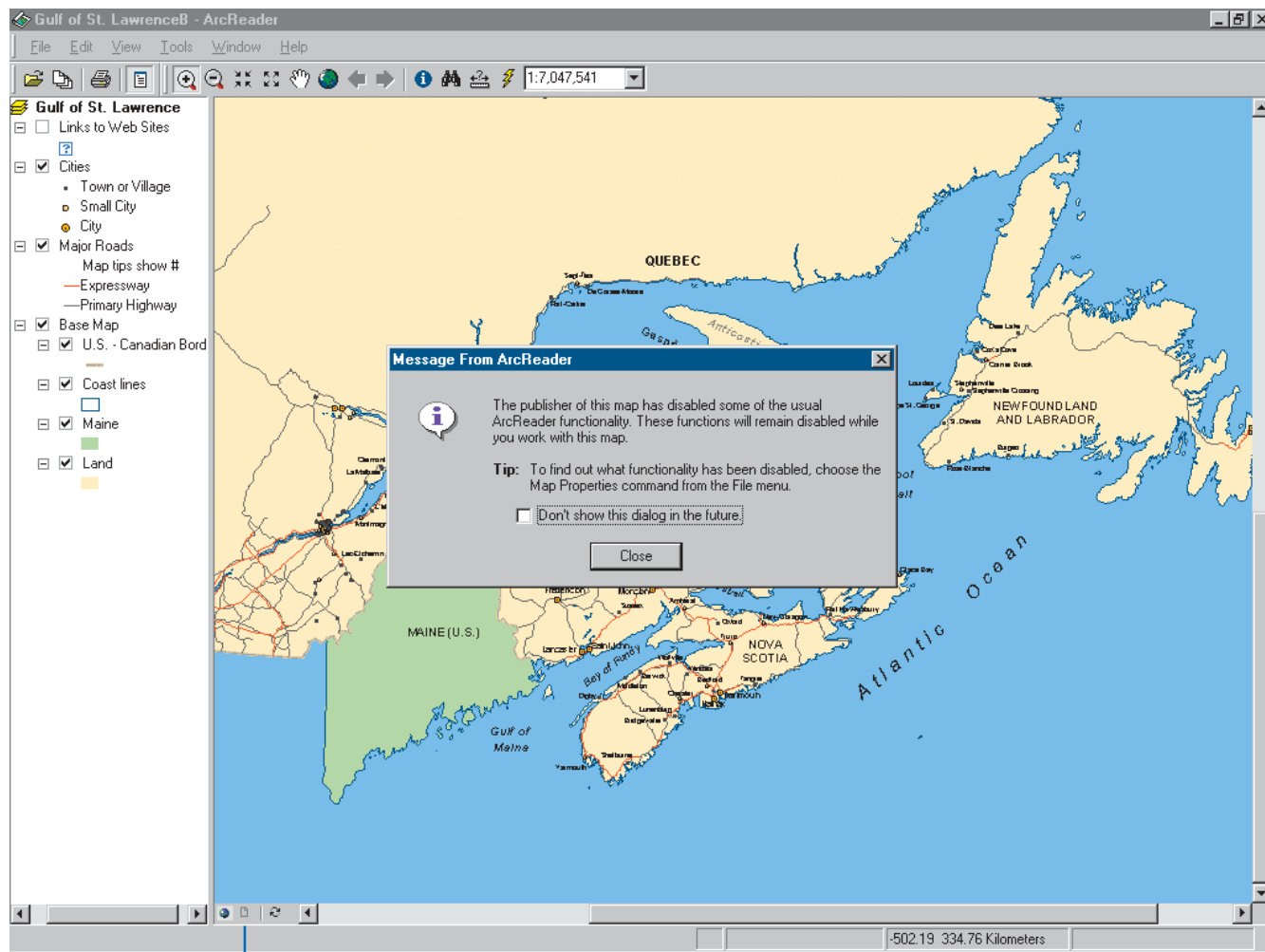
5. Choose an output location for the map and click Save.

If you try to save the map with the same name as a map that you have previously published, you will be asked if you want to overwrite the map. Click No and give the map a new name.

After you have saved the map, open it in ArcReader to ensure that it was published with only Data view enabled.

The graphic on the following page illustrates what your map should look like in ArcReader once you have published it with only Data view enabled.

When the map is opened in ArcReader, a message displays that alerts the map user to disabled functionality.



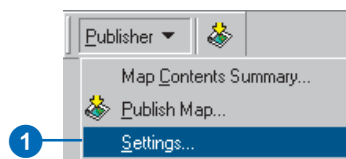
The Layout view button is disabled.

This is an example of a map published with only Data view enabled.

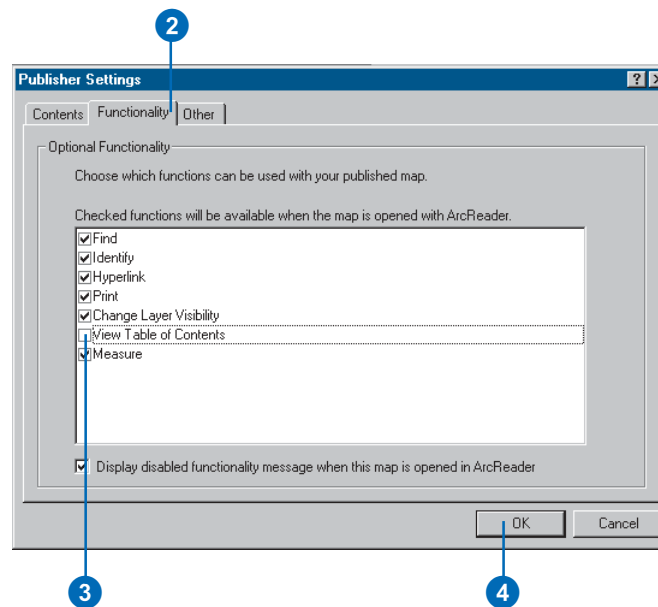
Publishing a map without a table of contents

Sometimes you may need to publish maps with reduced functionality to protect data or to meet special needs of your audience. Publisher lets you publish maps with reduced functionality, allowing you to tailor the ArcReader experience for a particular purpose. The following steps demonstrate how to turn the table of contents off. You can follow the same steps to reduce other functionality in your map, depending on your needs.

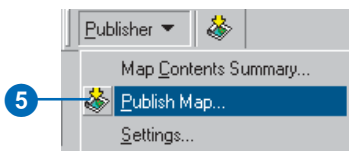
1. Click Publisher and click Settings.



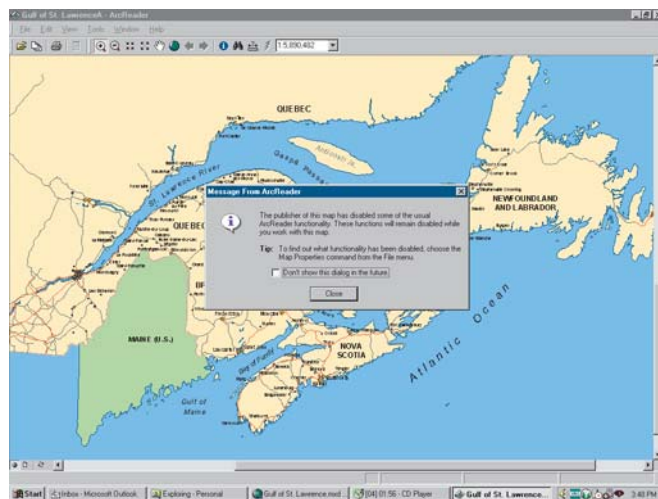
2. Click the Functionality tab.
3. Uncheck View Table of Contents.
4. Click OK.



5. Click Publisher, click Publish Map, and save the map to an output location.
6. Open ArcReader and navigate to the directory where you saved your map.



The table of contents does not appear.



The message notifies the user that some commands or tools have been disabled.

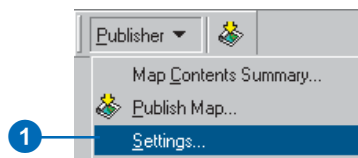
In this exercise, you saw how to publish a map without a table of contents. In the following exercise, you will learn how to use the security settings in Publisher to control who can access the data in your published map.

Exercise 3: Using ArcGIS Publisher security settings

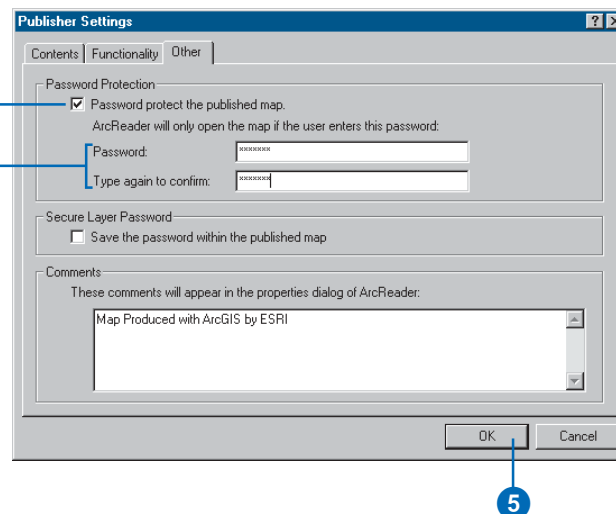
There may be times when you want to control who can access your published map or the data in the map. In cases like this, you can publish your map so a password is required to open it in ArcReader. Publisher honors data source passwords and allows you to add another layer of security by password-protecting a published map.

Publishing a map that is password protected

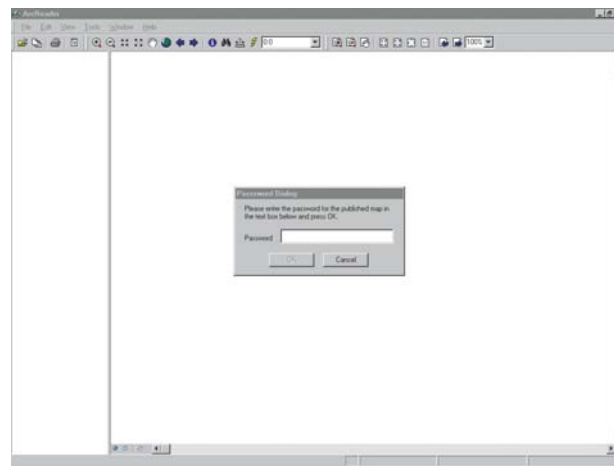
1. Click Publisher and click Settings.



2. Click the Other tab.
3. Check the Password protect the published map check box.
4. Enter a password and confirm the password.
5. Click OK.
6. Click Publish Map and save the map to an output location.



7. Reopen ArcReader. You are now prompted to enter a password before the map displays.



ArcReader prompts for a password when the map is opened.

In this tutorial, you have been introduced to some functions of ArcGIS Publisher. You learned how to change the Publisher settings to publish a map that effectively conveys the information that you want. You also saw how to view your published map in ArcReader and how to set security on your published map. For more information on Publisher, please refer to the ArcGIS Desktop Help system. To get information about specific dialog boxes, options, or commands, use the context-sensitive help.

Glossary

active data frame

The data frame you're currently working with—for example, the one to which you are adding layers. The active data frame is shown in bold in the table of contents.

attribute

A characteristic of a map feature. Attributes of a river might include its name, length, average depth, and so on.

attribute table

Information about features on a map, stored in rows and columns. Each row relates to a single feature, while each column contains the values for a single characteristic.

data frame

A frame on the map that displays layers occupying the same geographic area. You may have one or more data frames on your map depending on how you want to organize your data. For instance, one data frame might highlight a study area, and another might provide an overview of where the study area is.

data source

Any geographic data, such as a coverage, shapefile, raster, or geodatabase.

data view

An all-purpose view for exploring, displaying, and querying geographic data. This view hides all map elements, such as titles, North arrows, and scalebars. See also layout view.

display units

The units—for example, feet, miles, meters, or kilometers—ArcReader uses to report measurements, dimensions of shapes, and distance tolerances and offsets.

feature

A representation of a real-world object in a layer on a map.

feature class

1. A classification describing the format of geographic features and supporting data in a coverage. Coverage feature classes for representing geographic features include point, arc, node, route system, route, section, polygon, and region. One or more coverage feature is used to model geographic features; for example, arcs and nodes can be used to model linear features, such as street centerlines. The tic, annotation, link, and boundary feature classes provide supporting data for coverage data management and viewing.

2. The conceptual representation of a geographic feature. When referring to geographic features, feature classes include point, line, area, and surface. In a geodatabase, an object class that stores features and has a field of type geometry in a geodatabase.

field

A column in a table. Each field contains the values for a single attribute.

geodatabase

A geographic database that provides services for managing geographic data. A geodatabase is hosted inside a relational database management system. A geodatabase contains feature datasets.

graticule

A graphic representation on a map of the network of parallels and meridians (latitude and longitude) that subdivide the earth's surface.

grid

A geographic representation of the world as an array of equally sized square cells arranged in rows and columns. Each grid cell is referenced by its geographic x,y location. See also raster.

group layer

Several layers that appear and act like a single layer in the table of contents in ArcReader.

image

Represents geographic features by dividing the world into discrete squares called cells. Examples include satellite and aerial photographs, scanned documents, and building photographs. See also raster.

layer

A collection of similar geographic features—such as rivers, lakes, counties, or cities—of a particular area or place for display on a map. A layer references geographic data stored in a data source, such as a coverage, and defines how to display it. You can create and manage layers as you would any other type of data in your database.

layout

The design or arrangement of elements—such as geographic data, North arrows, and scalebars—in a digital map display or printed map.

layout view

The view for laying out your map. Layout view shows the virtual page upon which you place and arrange geographic data and map elements—such as titles, legends, and scalebars—for printing. See also data view.

legend

A list of symbols appearing on the map; includes a sample of each symbol and text describing which feature each symbol represents.

map

A graphical presentation of geographic information. It contains geographic data along with other elements, such as a title, North arrow, legend, and scalebar. You can interactively display and query the geographic data on the map and also prepare a printable map by arranging the map elements around the data in a visually pleasing manner.

map display

A graphic representation of the map on the computer screen.

map document

The disk-based representation of a map. Map documents can be printed or embedded into other documents. Map documents have an .mxd file extension.

map element

A graphic component, such as a scalebar, North arrow, and title, that helps describe the geographic data on the map.

Map Tips

Displays onscreen descriptions of map features when you hover the mouse pointer over the feature.

map units

The units—for example, feet, miles, meters, or kilometers—in which the coordinates of spatial data are stored.

neatline

A border commonly drawn around geographic features, often to separate them from other map elements.

North arrow

A map element that shows how the map is oriented.

projection

A mathematical formula that transforms feature locations from the earth's curved surface to a map's flat surface. A projected coordinate system employs a projection to transform locations expressed as latitude and longitude values to x,y coordinates. Projections cause distortions in one or more of these spatial properties: distance, area, shape, and direction.

raster

Represents any data source that uses a grid structure to store geographic information. See also grid and image.

scale

The relationship between the dimensions of features on a map and the geographic objects they represent on the earth, commonly expressed as a fraction or a ratio. A map scale of 1/100,000 or 1:100,000 means that one unit of measure on the map equals 100,000 of the same unit on the earth.

scalebar

A map element that graphically shows a map's scale.

shapefile

A vector data storage format for storing the location, shape, and attributes of geographic features. A shapefile is stored in a folder and contains one feature class.

symbol

A graphic representation of an individual feature or class of features that helps identify it and distinguish it from other features.

symbolology

The criteria used to determine symbols for the features in a layer. A characteristic of a feature may influence the size, color, and shape of the symbol used.

table of contents

Lists all the layers on the map and shows what the features in each layer represent.

Index

A

- Active data frame 33
 - defined 85
- ArcGIS Publisher
 - customizing settings 77–81
 - settings 65
 - starting 58
 - using security settings 82
- ArcGIS Publisher tutorial
 - enabling Publisher toolbar 74
 - loading Publisher tutorial 74
 - publishing a map 74–76
 - viewing map in ArcReader 76
- ArcReader
 - accessing from taskbar 28
 - checking functionality of map 30
 - closing 56
 - controlling startup options 39
 - exiting 56
 - help 55
 - information warning messages 30
 - Magnifier Window 46
 - Options dialog box 39
 - printing 51
 - starting 28
 - window 31
- ArcReader tutorial
 - bookmarks
 - using 13
 - data view 17
 - getting help with tools 12
 - hyperlinks 22
 - Identify window 20
 - layers 14–15
 - layout view 17
 - magnifier window 15
 - changing properties 16

- ArcReader tutorial (continued)
 - Map Tips 18
 - moving around on a map 11
 - printing a map 24
 - querying a map 18
 - starting ArcReader 10
 - viewing a map 10

- Attribute tables
 - defined 85

- Attributes
 - defined 85

B

- Bookmarks
 - using 45
- Broken layers
 - getting more information 38

D

- Data
 - accessing 59
- Data frames 32, 35
 - active 33
 - defined 85
 - defined 85
 - described 33
 - organizing layers in 33
 - showing the contents of 35, 56
- Data sources 29
 - defined 85
- Data view
 - defined 85
 - described 40
 - switching to 31, 36, 40
- Display
 - units
 - defined 85
- Distance
 - measuring 50, 54

F

- Feature class
 - defined 86
- Features
 - defined 85
 - finding on a map 47
 - identifying 48
- Fields
 - defined 86
- Find tool 47
- Functionality
 - restricting 65

G

- Geodatabase
 - defined 86
- Getting started
 - with ArcGIS Publisher. *See* ArcGIS Publisher tutorial
 - with ArcReader. *See* ArcReader tutorial
- Graticules
 - defined 86
- Grid
 - defined 86
- Group layers
 - defined 86

H

- Help 55
 - in dialog boxes 55
 - pointer 55

I

- Identify tool 48
- Identifying features 48
- Images
 - defined 86

L

- Layers 32, 35
 - adding 32
 - broken
 - getting more information 38
 - broken links 29
 - defined 86
 - described 32
 - drawing order 32
 - identifying features in 48
 - organizing in data frames 33
 - visible scale range 36
- Layout view
 - defined 86
 - described 40
 - switching to 31, 36, 40
- Legends
 - defined 86
- Links
 - to data 29

M

- Magnifier Window 46
- Map Contents Summary dialog box 71
- Map display
 - defined 87
- Map documents 27
 - defined 87
- Map elements
 - defined 87
- Map Properties dialog box 30
 - accessing 30
 - broken layers 38
 - functionality 37

- Map Tips 18
 - defined 87

- Map units
 - defined 87

- Maps
 - as documents 27
 - creating for computer network 60
 - creating to distribute with data 62
 - creating with Internet data 64
 - data view 40
 - defined 87
 - described 27
 - exploring data 47
 - layout view 40
 - opening 29
 - preparing for publishing 59
 - publishing
 - adjusting settings 65
 - with comments 70
 - sharing 72
 - working with data 47

N

- Neatlines
 - defined 87
- North arrows
 - defined 87

O

- Online help
 - in dialog boxes 55
 - pointer 55
- Opening
 - a map 29

P

- Printing 51
- Projections
 - defined 87
- Publisher toolbar
 - adding 58
 - enabling 58
- Publishing maps
 - adjusting settings 65

R

- Rasters
 - defined 87

S

- Scale
 - defined 87
- Scalebars
 - defined 87
- Shapefiles
 - defined 87
- Spatial bookmarks
 - using 45
- Splash screen
 - turning on and off 30, 39
- Symbology
 - defined 87
- Symbols
 - defined 87

T

- Table of contents 32
 - defined 88
 - described 32
 - displaying layers in 34
 - showing and hiding 34
 - using 34
- Tables
 - fields
 - defined 86
- Taskbar
 - starting ArcReader from 28
- Tutorial
 - ArcGIS Publisher. *See* ArcGIS Publisher tutorial
 - ArcReader. *See* ArcReader tutorial

U

- Units
 - display
 - defined 85
 - map
 - defined 87

V

- Visible scale range 36

Z

- Zooming
 - to a layer 43
 - to a specific scale 44

