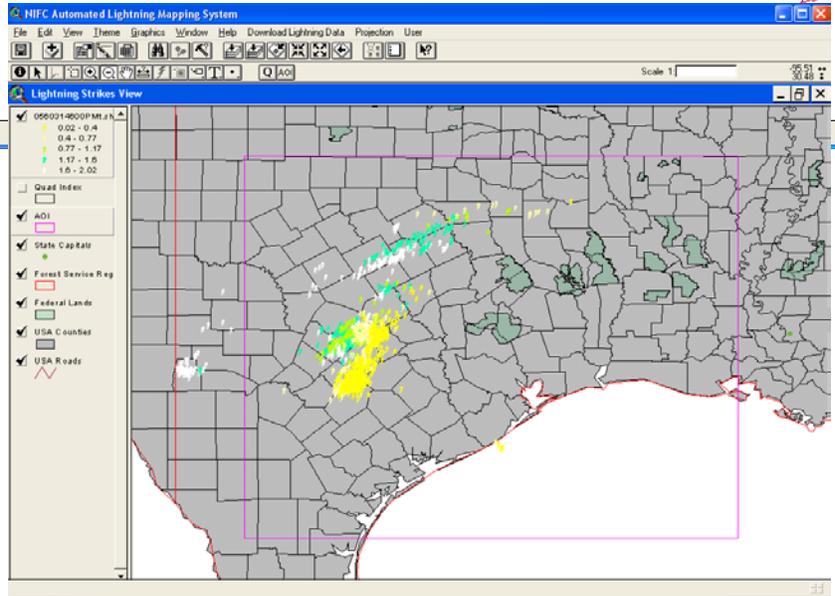
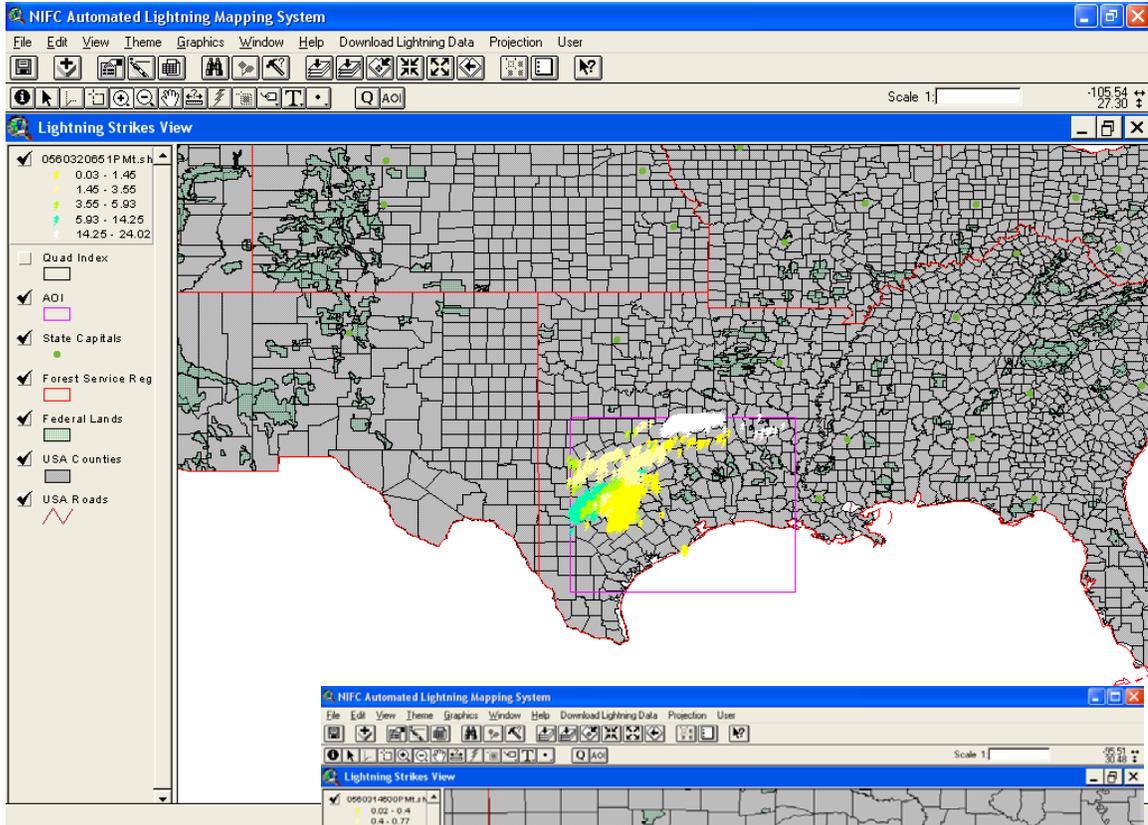


Automated Lightning Mapping System User's Guide



May 2003

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Getting started

This chapter explains the information you need to log on and use the Automated Lightning Mapping System (ALMS). ALMS allows you to download near real time lightning location information from the Bureau of Land Management lightning data server on the Internet. Topics include:

- Before you begin
- Installing ALMS
- Terms and concepts.

Before you begin

Before using ALMS, you must feel confident that:

- You are familiar with your personal computer and functions keys, and understand personal computer concepts.
- You are familiar with Windows 95, Windows NT, Windows 2000 or Windows XP and can log on and log off.
- You have basic skills using ArcView 3.2 and an Internet browser.

Software and hardware requirements

You must have the following hardware and software to run ALMS:

Item	Minimum Requirement	Recommended
Operating System	Windows 95, Windows NT, Windows 2000, Windows XP	same
Internet Browser	MS Internet Explorer 5.0 or newer	same
Internet connection	9600 or higher	56K or higher
mapping software	ArcView 3.2	ArcView 3.2
CPU	Pentium	Pentium 200
monitor color support	256	65,536
monitor resolution	640 x 480	same
RAM	32 MB	64 MB
hard disk space available	15 MB	same
mouse	yes	same
printer	any - windows compatible	color laser

Installing ALMS

This section outlines the basic instructions to install ALMS for Windows 98, NT, 2000 and XP operating environments. Before starting the installation process, close all other applications.

To download the ALMS installation file from the Internet

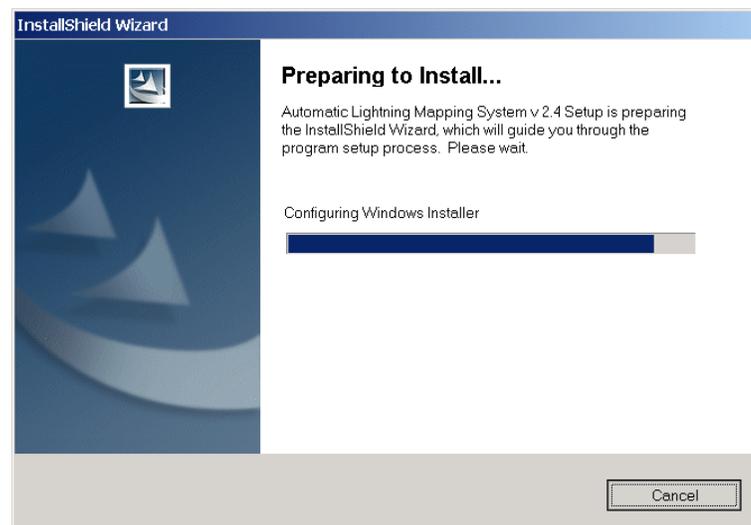
- 1 Start your Internet browser.
- 2 In the address box, type **<http://www.fs.fed.us/fire/planning/nist/distribu.htm>**, and then press ENTER.
- 3 Scroll down to **Software**, and then double-click **ALMSV2.4.0**.
- 4 Double-click the installation file, and then save it in the folder of your choice.

For Forest Service users, save the ALMS_V24.exe file in C:\fsprod\fam\ALMS For all others, follow your agency's guidelines.

To install ALMS V2.4.0

- 1 From your personal computer, locate the folder that contains the file **ALMS_V24.exe**.
- 2 Double-click **ALMS_V24.exe**.
- 3 Complete the installation process as instructed on your screen.

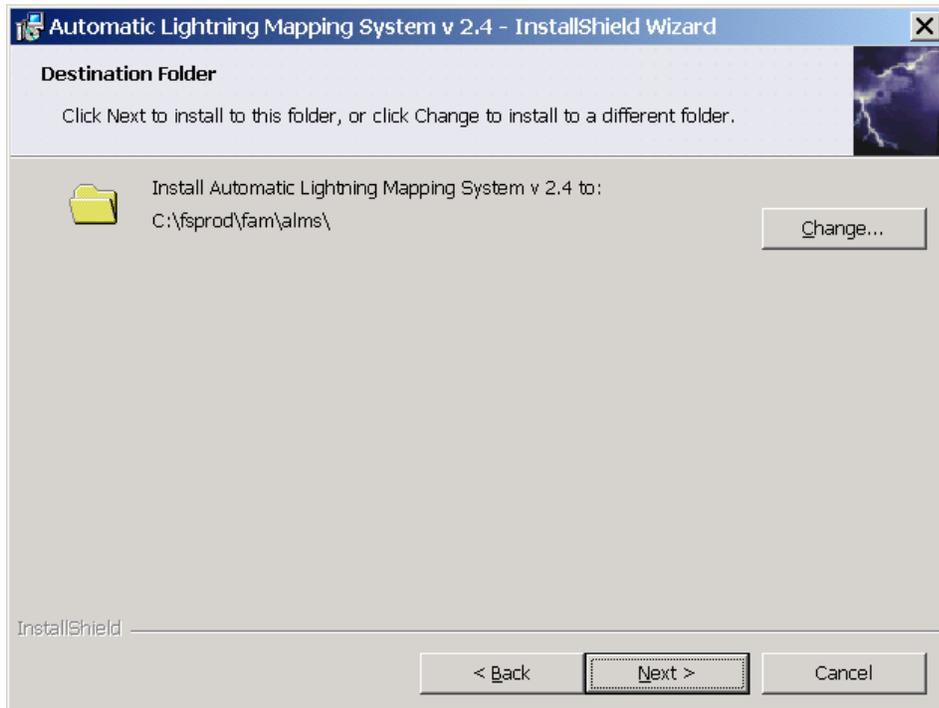
The following diagram shows the first ALMS Installation dialog box.



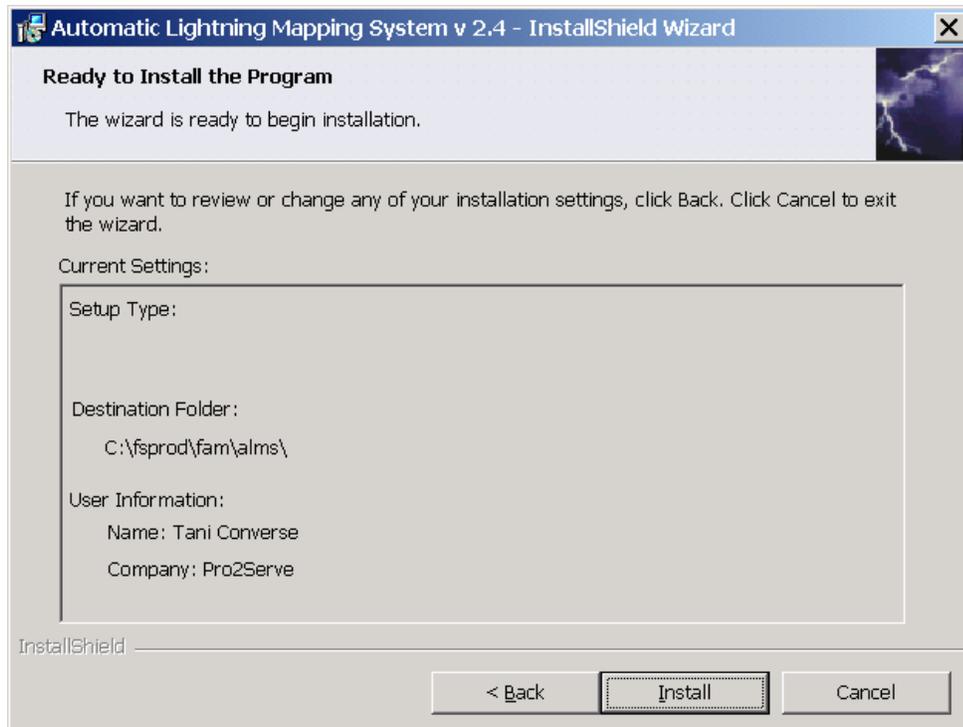
The following diagram shows the Welcome dialog box. Click **Next** to continue the installation process.



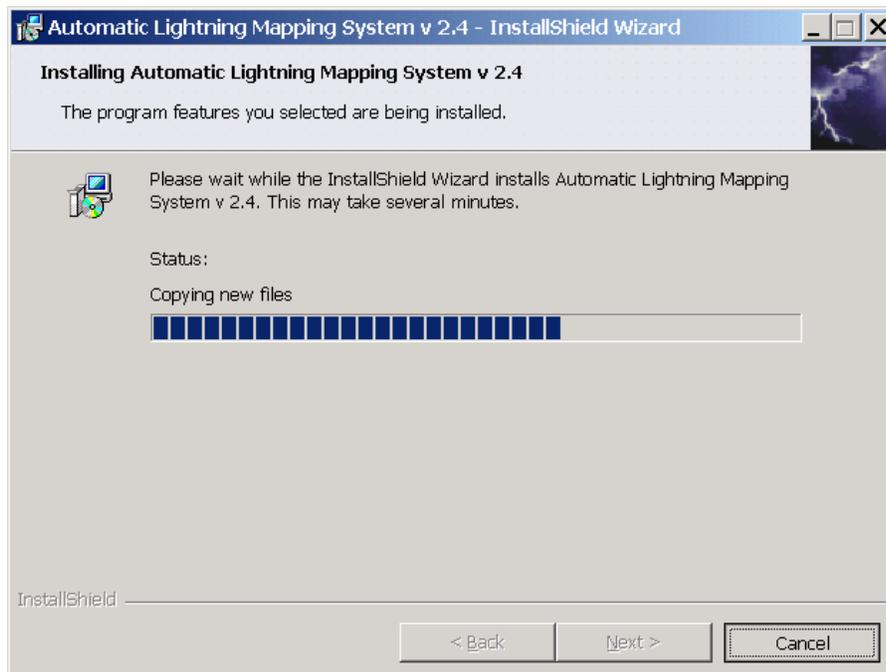
The following diagram shows the Choose Destination Location dialog box. Review the Destination Folder for the ALMS software, and then click **Next** to continue the installation process.



The next screen allows you to review the installation settings you have chosen. Hit Install to continue or Back to go to a previous screen and change a setting.



As the installation continues, you will see the following screen.



When the installation is complete, the following screen will display. Click Finish to complete the installation.



To configure your time zone on the BLM lightning data server

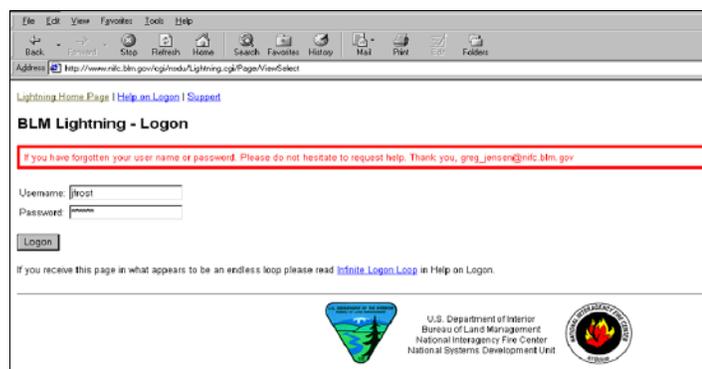
Perform this task only if you have not previously done so!

- 1 Start your Internet browser.
- 2 In the address box, type **http://www.nifc.blm.gov**, and then press ENTER.
- 3 On the **Wildland Fire Management Information Home Page**, click **Lightning**.
- 4 On the **BLM Lightning - Logon** screen, type your **Username** and **Password**, and then click **Logon**.
- 5 On the **BLM Lightning - Successful Logon** screen, click **User Preferences**.
- 6 Under **Time Zone Selection**, select the appropriate **Time Zone** and **Daylight Savings Time** preference, and then click **Update Preferences**.
- 7 When finished, click **Logoff**, and then exit your Internet browser.

The following diagram shows the Wildland Fire Management Information Home Page.



The following diagram shows the BLM Lightning - Logon screen.



The following diagram shows the BLM Lightning - User Preferences screen.

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Folders

Address <http://www.nifc.blm.gov/cgi/nsdu/Lightning.cgi/Page/UserPreference>

[Lightning Home Page](#) | [Help](#) | [Help on User Preferences](#) | [Select View](#) | [Logout](#) | [Support](#)

BLM Lightning - User Preferences

Logon Information

Username: JFROST

Applications

Authorized Lightning
 Application(s): Weather

Time Zone Selection

Time Zone:

Use Daylight Savings Time when appropriate
 Never use Daylight Savings Time

Organization Information

Organization: United States Forest Service
 Unit: National Interagency Fire Center
 Sub Unit: NIFC

Contact Information

Name: First Last

Phone: Area Code Prefix Extension

email address:

To set up ALMS

Before starting this task, log off Lotus Notes to avoid potential memory conflicts.

- 1 Click **Start**, point to **Programs**, point to **ESRI**, and then click **ArcView GIS 3.2**.
- 2 On the **Welcome to ArcView GIS** screen, click **Cancel**.
- 3 On the **File** menu, click **Extensions**.
- 4 On the **Extensions** dialog box, select the **Automated Lightning Mapping** check box, and then click **OK**.

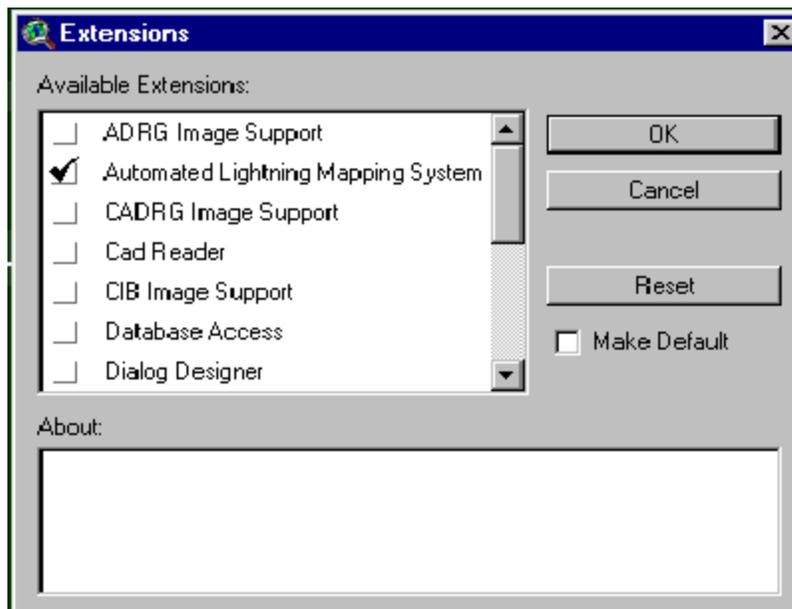
*Do not select the **Make Default** check box!*

- 5 On the **NIFC ALMS Login** dialog box, type your BLM Lightning Server **Username**, click **OK**, then type your BLM Lightning Server **Password** and click **OK**.

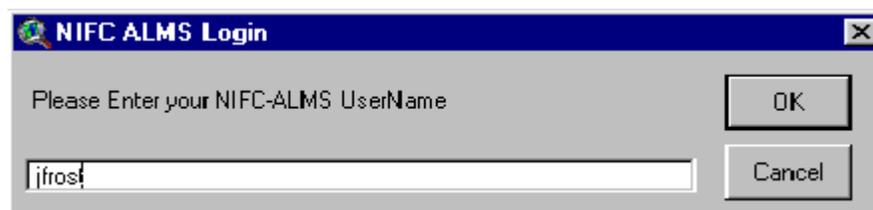
The following diagram shows the Welcome to ArcView GIS dialog box.



The following diagram shows the Extensions dialog box. The Automated Lightning Mapping System check box is selected.



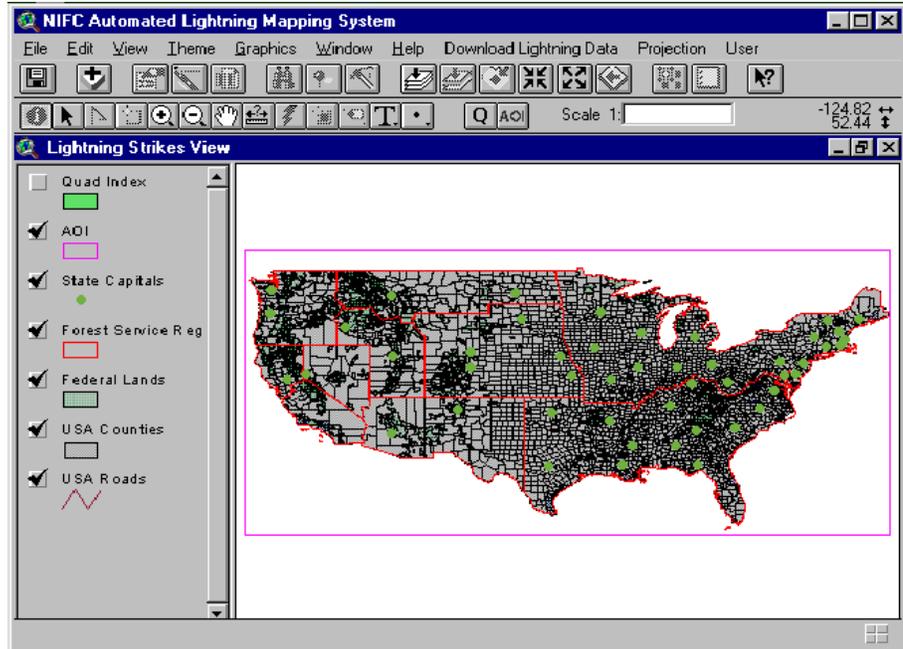
The following diagram shows the NIFC ALMS Login dialog box.



The following diagram shows the Password dialog box.



The following diagram shows the Lightning Strikes View of the NIFC Automated Lightning Mapping System screen.



To verify the installation process

If ArcView 3.2 is already running, skip steps 1 and 2. Begin with step 3.

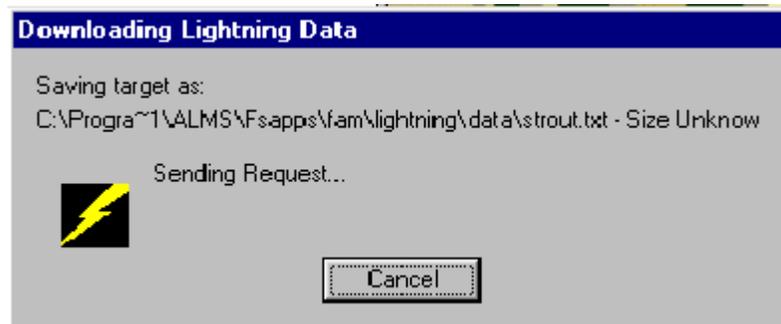
- 1 Click **Start**, point to **Programs**, point to **ESRI**, and then click **ArcView GIS 3.2**.
- 2 On the **Welcome to ArcView GIS** screen, click **Cancel**.
- 3 On the **File** menu, click **Extensions**.
- 4 On the **Extensions** dialog box, select the **Automated Lightning Mapping** check box, and then click **OK**.

*Do not select the **Make Default** check box!*

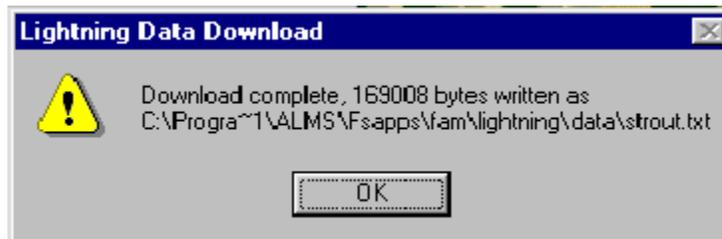
- 5 On the **Download Lightning Data** menu, click **Last 2 Hours**.
- 6 On the **Lightning Data Download** dialog box, click **OK**.

The following diagrams show the subsequent informational messages and dialog boxes that appear after your first successful log on to ALMS.

The following diagram shows the Downloading Lightning Data dialog box.



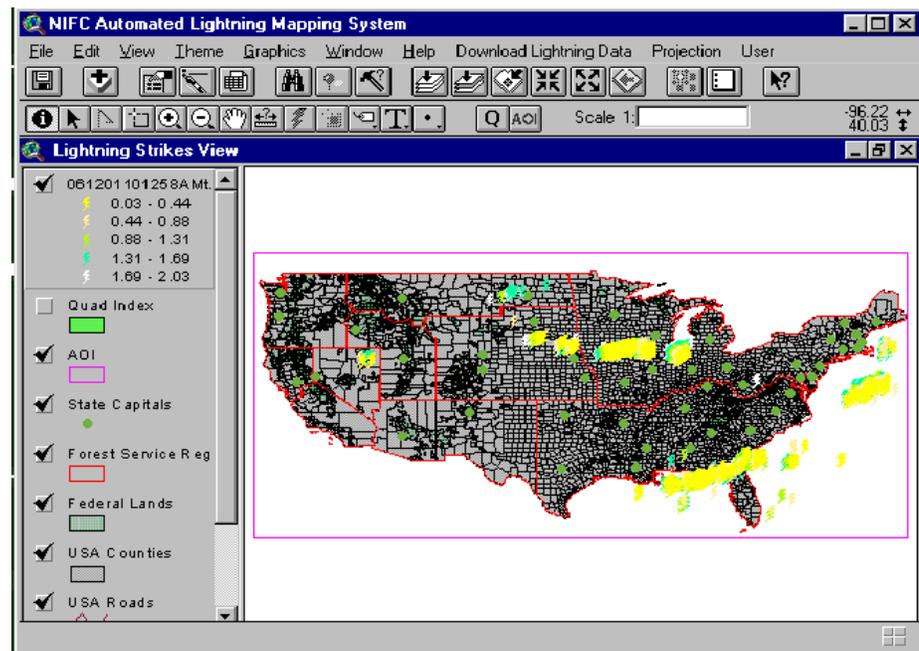
The following diagram shows the Lightning Data Download box. From here, click OK to continue the process.



The following diagram shows the Press any key dialog box. From here, click OK to display the resulting Lightning Strikes View.



The following diagram shows the resulting Lightning Strikes View and new lightning data displayed on the map.



You have just successfully installed ALMS! Next, complete the clean up task and then you are ready to use ALMS.

To clean up

- 1 On the **Start** menu, point to **Programs**, and then click **Windows Explorer**.
- 2 Open the folder that contains the install file **ALMS_V24.exe**.
- 3 Right-click **ALMS_V24.exe**, select **Delete**, and then click **Yes**.

To log off ALMS

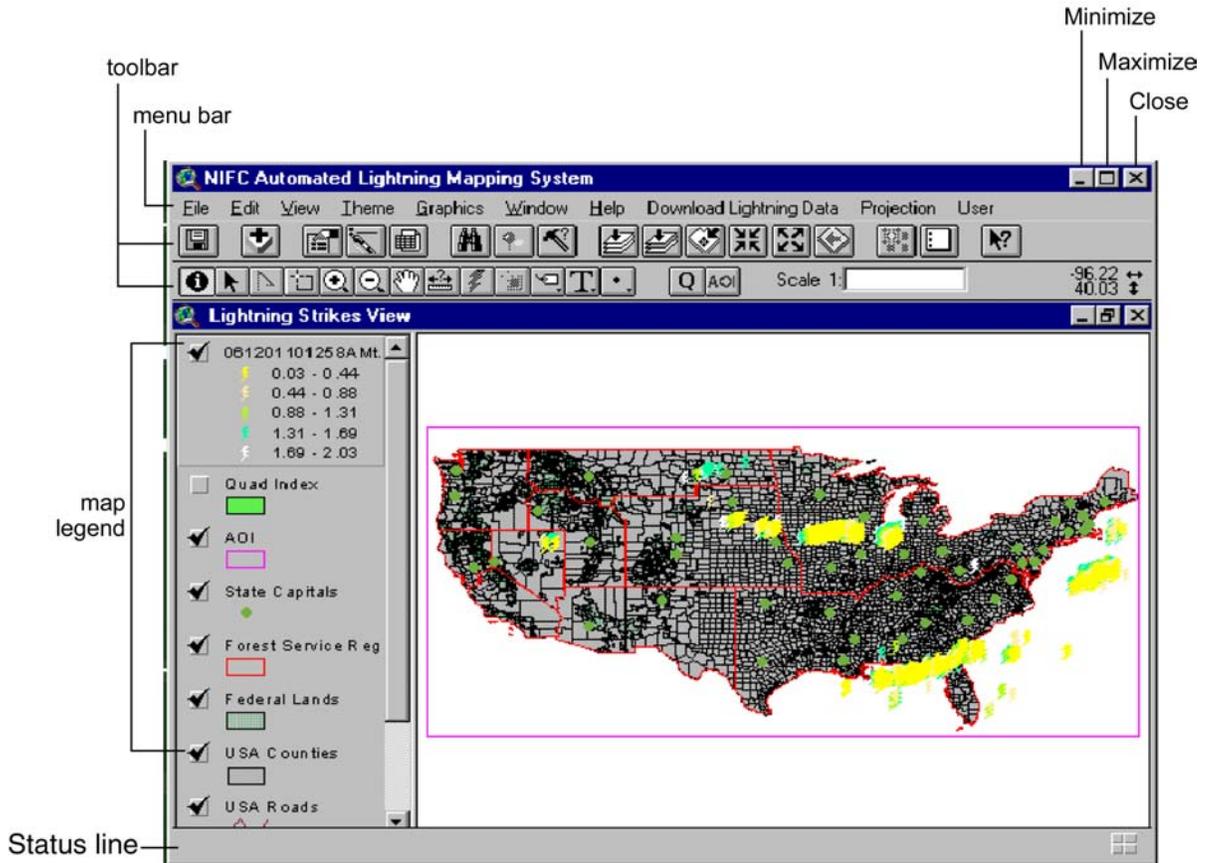
- On the **File** menu, click **Exit**.

Terms and concepts

This section identifies some of the key toolbars and menus that you will be using in ALMS.

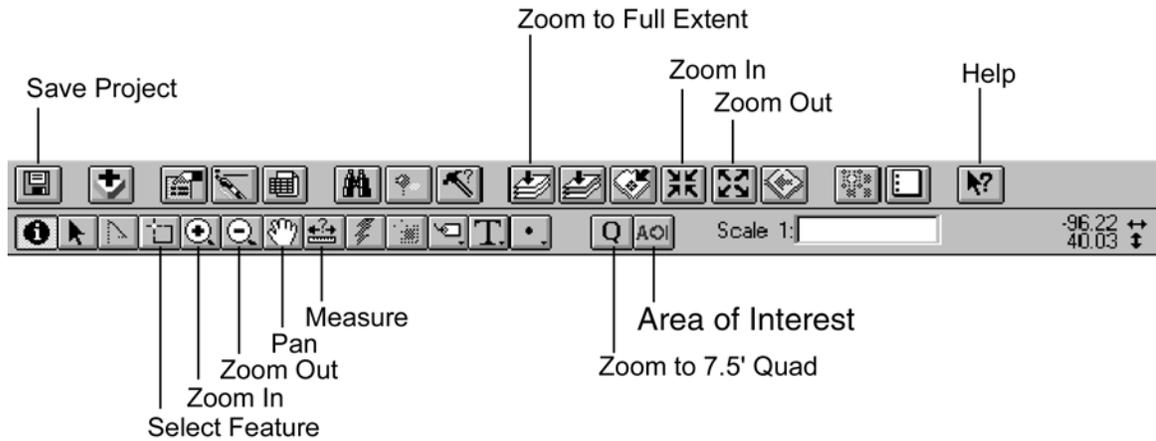
Screen terminology

The following diagram shows the ALMS screen and screen elements.



Toolbar

The following diagram shows the buttons that are available on the ALMS toolbar. Each button allows you to perform a specific function. When you hover the mouse over a particular button, a description of that button's function displays on the status line, which is located on the lower left-hand portion of the ALMS screen.



For more information about using toolbar buttons, refer to your ArcView user's guide.

Using ALMS

This chapter explains some of the basic functions you can perform in ALMS. Topics include:

- Logging on
- Downloading lightning data
- Reviewing specific areas of interest
- Switching to a different user
- Setting the projection.

Logging on

You may want to create a shortcut of ArcView GIS 3.2 to save time logging on!

To log on to ALMS

- 1 Click **Start**, point to **Programs**, point to **ESRI**, and then click **ArcView GIS 3.2**.
- 2 On the **File** menu, click **Extensions**.
- 3 On the **Extensions** dialog box, select the **Automated Lighting Mapping** check box, and then click **OK**.

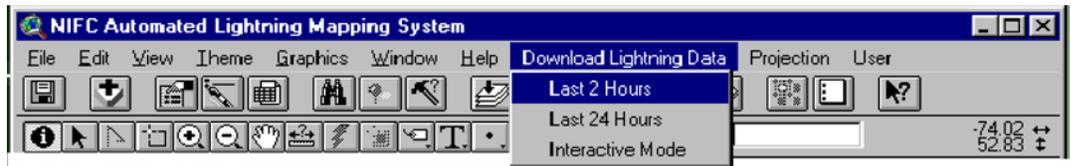
Downloading lightning data

This section explains how to download lightning data for the last two hours or for the last 24 hours.

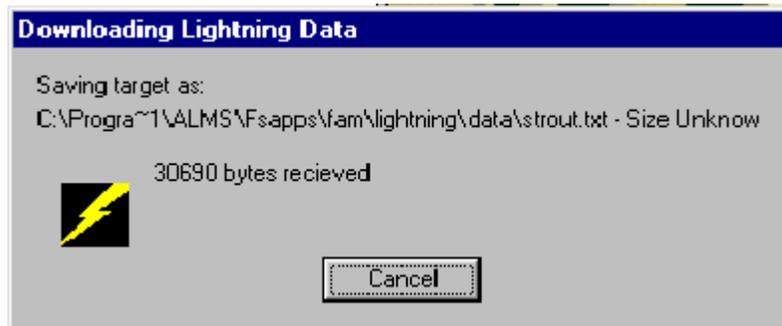
To download lightning data

- 1 On the **Download Lightning Data** menu, click **Last 2 Hours** or click **Last 24 Hours**, as appropriate.
- 2 On the **Lightning Data Download** dialog box, click **OK**.
- 3 On the **Press any key** dialog box, click **OK**.

The following diagram shows the Download Lightning Data menu. From here, you can download data from the last two hours, the last 24 hours, or choose the interactive mode.



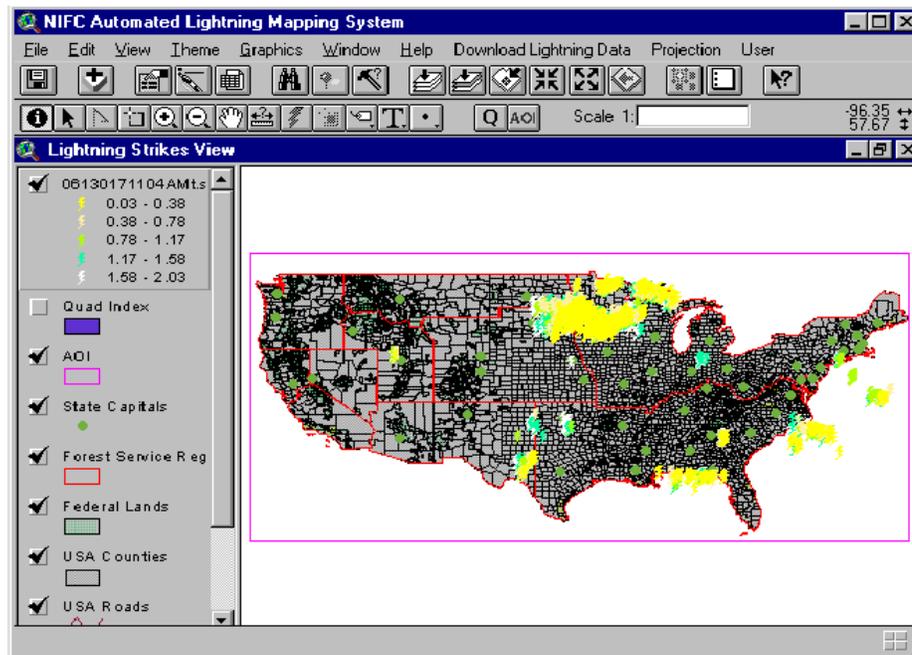
The following diagram shows the Downloading Lightning Data dialog box that appears when the download process begins.



The following diagram shows the Press any key dialog box that appears when the download process completes.



The following diagram shows the resulting Lightning Strikes View and new lightning data displayed on the map.



Reviewing specific areas of interest

This section explains how to use toolbar buttons to review specific areas of interest. Use these buttons in combination to quickly identify the specific area of your choice.

Using the zoom buttons

There are four different zoom buttons that you can use to navigate around the map:



- The zoom buttons that show arrows pointing toward or away from a center point allow you to zoom in or zoom out from the center of the display. These two buttons are on the first row of the toolbar, below the Download Lightning Data menu.



- The zoom buttons that show a plus sign (+) or minus sign (-) within a magnifying glass allow you to zoom in or zoom out from a point you click on the map. These two buttons are on the second row of the toolbar, below the Theme menu.

To zoom in or zoom out

- Click the zoom button of your choice, and then click on the map location of your choice.

Performing other functions

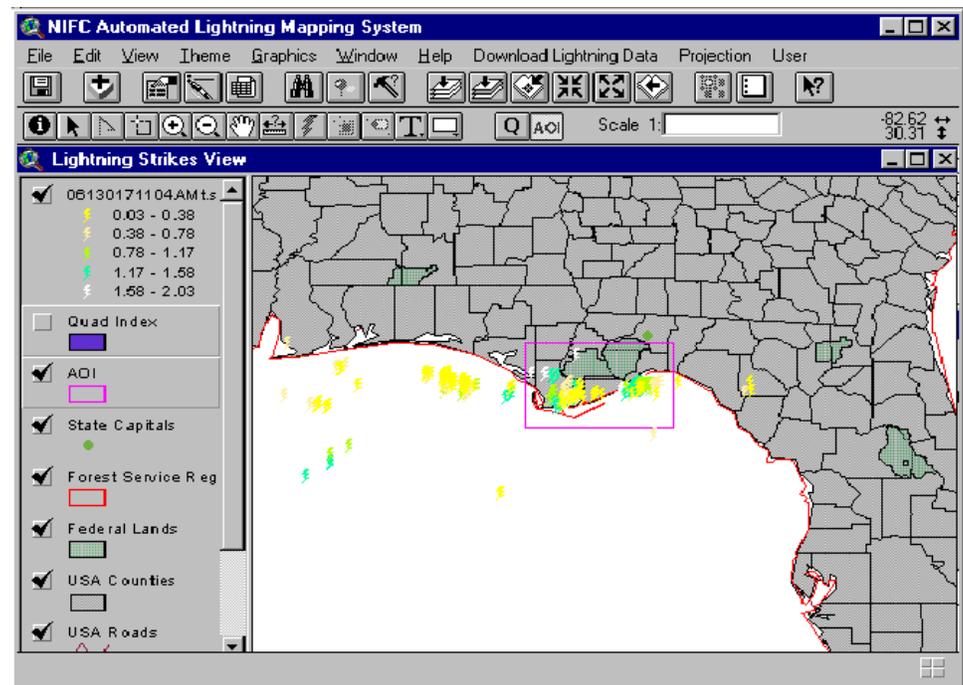
The AOI button allows you to select a specific area of interest and limit the spatial extent of downloaded lightning data. The Q button allows you to display a 7.5' quad of the area of interest. The Identify Results dialog box that displays shows information about the quad you selected.



To select an area of interest

- 1 On the toolbar, click the AOI button.
- 2 Click, hold, and drag to create a rectangle around the area of your choice.

The following diagram shows the resulting Lightning Strikes View for the area of interest. Notice the AOI check box selected on the map legend.



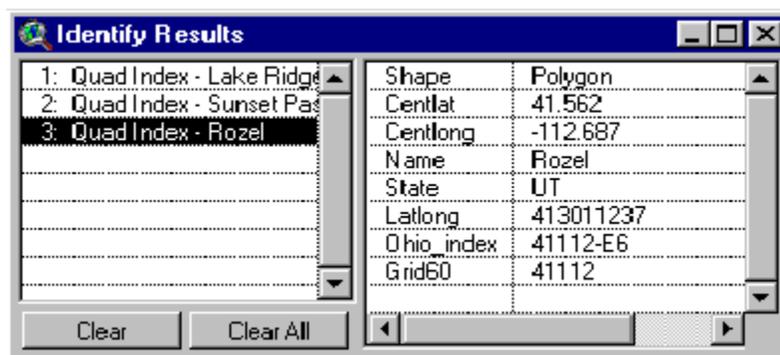
To turn off the area of interest view, clear the AOI check box.



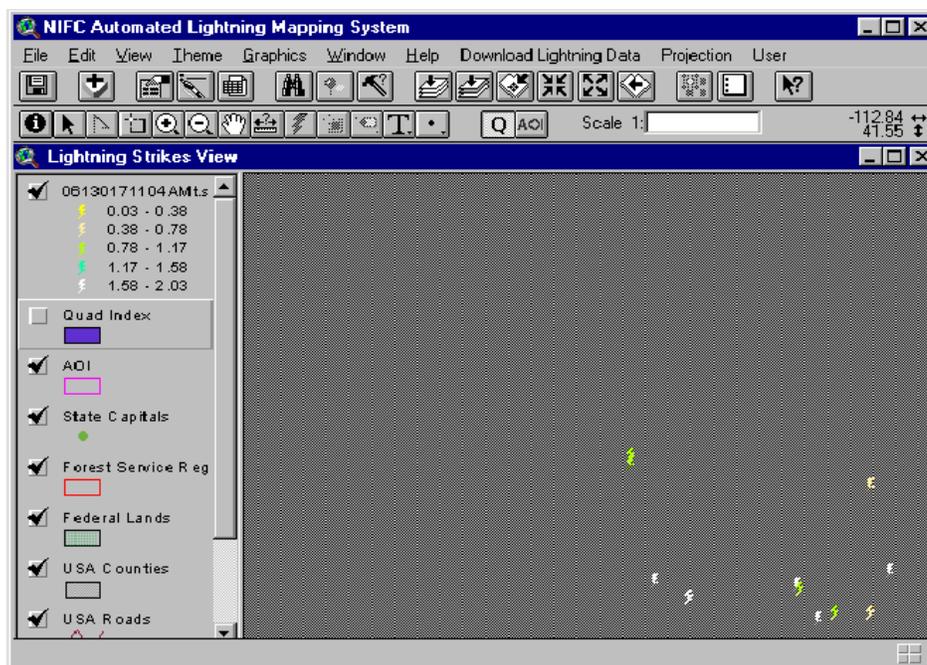
To display a 7.5' quad

- 1 On the toolbar, click the Q button, and then click the map location of your choice.
- 2 Review the **Identify Results** dialog box, and then click **Close** to review the resulting quad.

The following diagram shows the Identify Results dialog box.



The following diagram shows the resulting Lightning Strikes View of the selected quad.



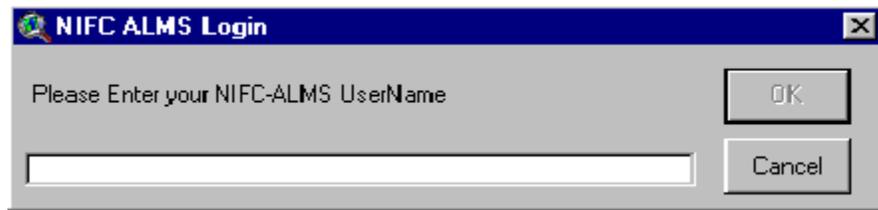
Switching to a different user

The Change User option allows you to switch to a different user.

To switch to a different user

- 1 On the **User** menu, click **Change User**.
- 2 On the **NIFC ALMS Login** dialog box, type the new BLM Lightning Server **Username**, click **OK**, and then type that BLM Lightning Server **Password** and click **OK**.

The following diagram shows the NIFC ALMS Login dialog box.



The following diagram shows the Password dialog box.



Setting the projection

In ALMS, the default projection is, “Geographic.” While ArcView ships with all projections, ALMS includes the following user interface:

- NAD27 (North American Datum 1927)
 - Projection: UTM
 - Projection: Teale Albers
- NAD83 (North American Datum 1983)
 - Projection: State Plane.

If you need others, use the ArcView Projection Utility Wizard extension.

Perform this task one time only. Once you have these settings, you do not need to change them.

You can obtain information on the Teale Albers projection from the Internet site <http://www.gislab.teale.ca.gov/wwwgis/albers.html>

To set a projection

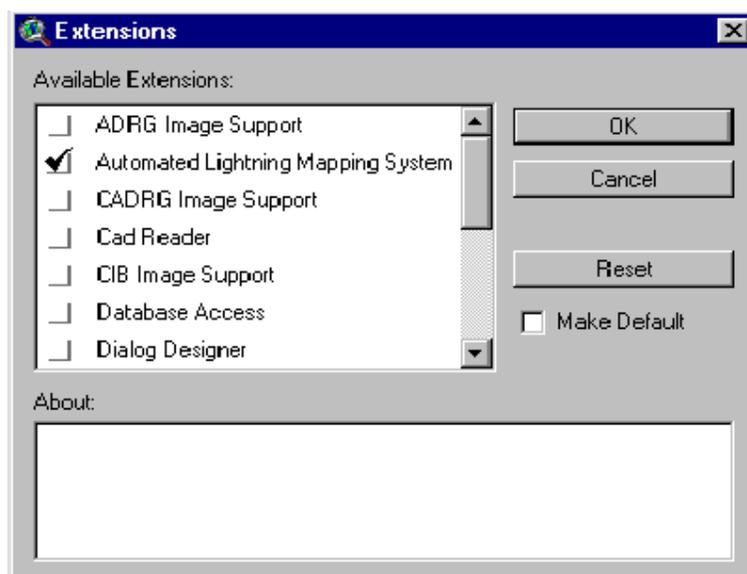
- 1 Start ArcView 3.2.
- 2 On the **File** menu, click **Extensions**.
- 3 On the **Extensions** dialog box, select the **Automated Lightning Mapping** check box, and then click **OK**.
- 4 On the **Projection** menu, click the projection of your choice.
- 5 On the **Project the View** dialog box, select the **Coordinate System** of your choice or the State of your choice, as appropriate, and then click **OK**.

The contents of this dialog box will vary based on the projection you selected in step 4. For the Teale-Albers coordinate system, you will skip this step.

- When finished, click **OK** on the **Projecting Data** dialog box to complete the process.

Reprojecting "projected" data is time consuming. Be patient!

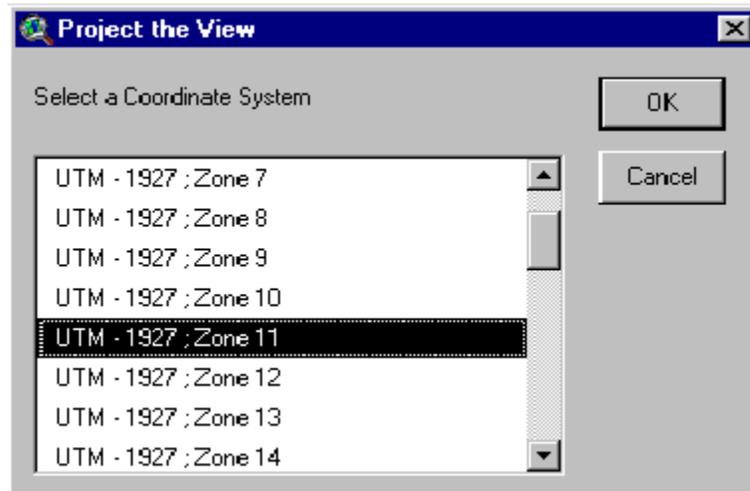
The following diagram shows the Extensions dialog box and the Automated Lightning Mapping System selected.



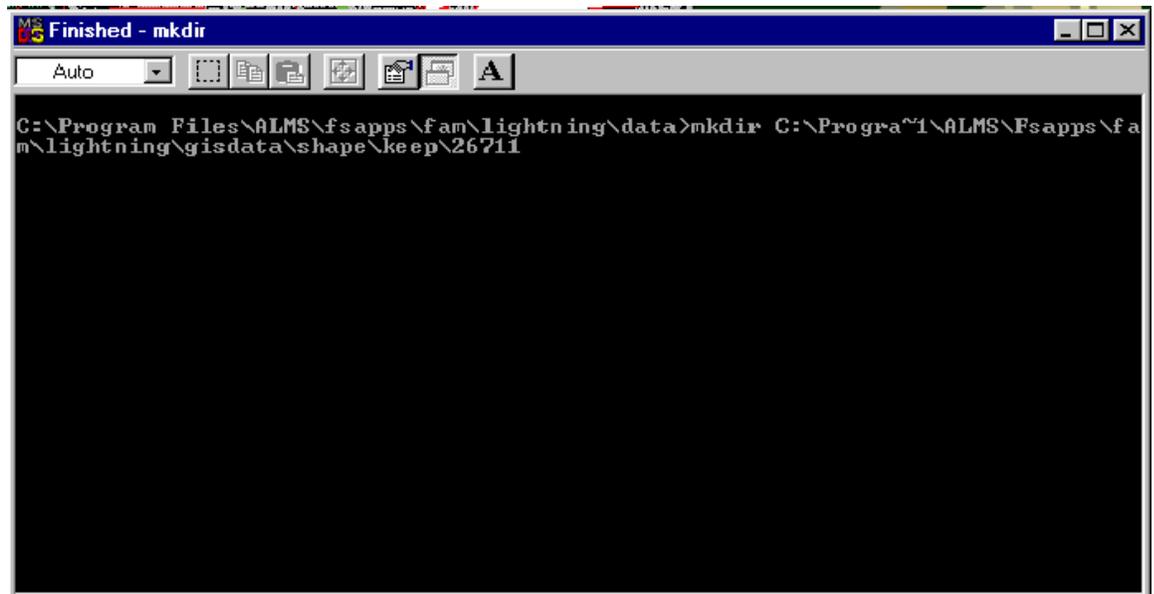
The following diagram shows the Projection menu. From here, you can select the datum of your choice.



The following diagram shows the Project the View dialog box. From here, choose the Zone that best fits your area.

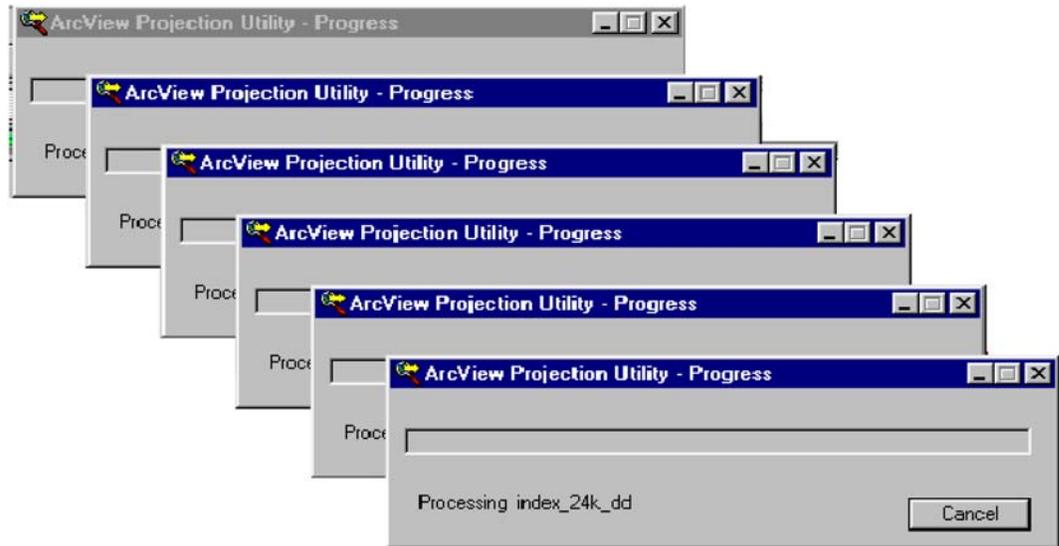


The following diagram shows the Finished - mkdir window that appears when you begin the projection. This window also appears at the end of the process.

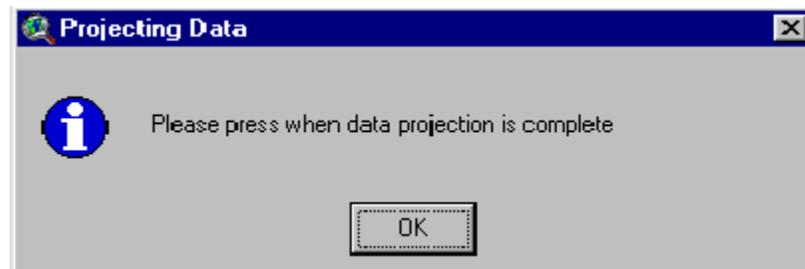


This window does not close at the end of the process, click the Close button on the top right portion of the window.

The following diagram shows some of the ArcView Projection Utility - Progress dialog boxes.



The following diagram shows the Projecting Data dialog box. From here, click OK to complete the process.



The following diagram shows the resulting projection using NAD27, Zone 11.

