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Introduction

 $ESRI^{\otimes}$ ArcIMS $^{\otimes}$ is Internet Map Server (IMS) software for authoring, designing, publishing, and administering Internet mapping applications. ArcIMS allows Web clients, map servers, data servers, and the Web server to communicate with one another.

Use this guide to get ArcIMS up and running. If you are new to ArcIMS, start with the typical installation for your platform. Once you are familiar with ArcIMS, use this guide to help you figure out your site configuration and install ArcIMS on a distributed system.

This book assumes you have a Web server and servlet engine installed and operational and know how to administer the Web server, stop and start services/daemons, and create virtual directories. It also assumes knowledge of the Internet and related terminology.

Overview

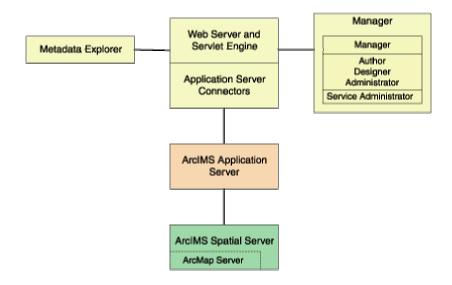
What's included with ArcIMS 4.0.1?

- The installation CD with ArcIMS software. See Using ArcIMS for details on working with ArcIMS. To find out about ArcIMS customization, see Customizing ArcIMS, a five-book series you can install with the software. The ArcXML Programmer's Reference Guide, a programming guide for customizing map configuration files, is also included with the software. For a printable version of Installing ArcIMS, see ArcOnline at http://support.esri.com for an Adobe® Portable Document Format (PDF) for your platform. The free Adobe Arcobat Reader® software can be downloaded from www.adobe.com.
- ArcExplorerTM—JavaTM Edition is included with ArcIMS and is documented in Using ArcExplorer—Java Edition.
- ArcSDE[®] for Coverages is included with ArcIMS and comes with two digital documents: Installing ArcSDE for Coverages and ArcSDE for Coverages Administration Guide. ArcSDE for Coverages can be used without any special licenses or keycodes. Refer to the ArcSDE for Coverages CD for information. Installing ArcSDE for Coverages is optional.
- ServletExec 4.1.1 is included on the ArcIMS CD under the ServletExec folder for all supported platforms except SGI[®] IRIX[®]. See the ServletExec readme and the ServletExec installation guide, located in this folder, for information on installing ServletExec.

ArcIMS components

ArcIMS is made up of:

- ArcIMS Manager/Manager Applications
- ArcIMS Application Server
- ArcIMS Application Server Connectors
- ArcIMS Spatial Servers
- ArcIMS Service Administrator
- ArcIMS Viewers



Each component is described in the following paragraphs.

See the discussion of architecture in *Using ArcIMS* for more detailed information on ArcIMS components.

ArcIMS Manager

The ArcIMS Manager provides the Web-based interface and supports the three main tasks you perform in ArcIMS—Author ArcIMS Services, Design Web pages, and Administer sites. As a Web interface, ArcIMS Manager also allows remote site management.

ArcIMS Manager resides on the Web server computer and can be accessed remotely via the Internet using the Microsoft[®] Internet Explorer Web browser. Remote access to ArcIMS Manager requires a one-time Remote Manager download to the remote computer. See Installing ArcIMS Remote Manager for instructions regarding Remote Manager.

ArcIMS Manager is supported only on Windows[®] using Internet Explorer. It is not supported on $HP^{\mathbb{R}}$ - $UX^{\mathbb{R}}$, $IBM^{\mathbb{R}}$ AIX[®], Linux[®] Red $Hat^{\mathbb{R}}$, $SGI^{\mathbb{R}}$ IRIX[®], or Sun^{TM} SolarisTM, and it is not supported on Windows using Netscape CommunicatorTM. This is because Netscape Communicator does not currently support scripting of applets—a feature that is critical for ArcIMS Manager.

ArcIMS Manager Applications

The ArcIMS Manager Applications—Author, Designer, and Administrator—are also provided as independent applications that run outside a Web browser. They can be installed on any computer.

ArcIMS Service Administrator

The ArcIMS Service Administrator is a remote site administration tool and can be used as an alternative to or in conjunction with ArcIMS Administrator. The ArcIMS Service Administrator can also be used to administer ArcSDE. To administer ArcSDE on Windows, a custom installation of the optional ArcSDE Administrator component on the ArcSDE Server is required; on UNIX, a custom installation of ArcIMS Spatial Server is required on the ArcSDE Server. The ArcIMS Service Administrator uses the JavaServerTM Pages (JSP) tag libraries and the Java API (application program interface) of the ArcIMS Java Connector.

The ArcIMS Service Administrator is installed with a typical installation and a custom Spatial Server installation on Windows and with a typical installation and ArcIMS Manager Applications installation on UNIX.

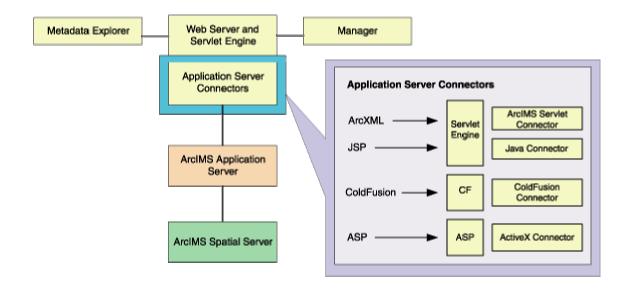
See Using ArcIMS, 'Using ArcIMS Service Administrator,' for details on using ArcIMS Service Administrator.

ArcIMS Application Server

The ArcIMS Application Server handles the incoming requests and tracks which ArcIMS Services are running on which ArcIMS Spatial Servers. The ArcIMS Application Server hands off a request to the appropriate Spatial Server. The Application Server is written as a Java application and runs as a Windows service or a daemon process (on UNIX®/Linux). It may reside on any computer.

ArcIMS Application Server Connectors

The ArcIMS Application Server Connectors are used to connect the Web server to the ArcIMS Application Server. Each instance of a connector is dedicated to one Web server and must be installed on the same computer as the Web server; however, a single Web server can support several connectors.



The ArcIMS Servlet Connector is the standard connector used for ArcIMS, and it supports the OpenGIS Consortium (OGC) Web Map Service (WMS) 1.1.0 implementation specification. It uses the ArcIMS language, ArcXML, to communicate from the Web server to the ArcIMS Application Server. The ArcIMS Servlet Connector provides Map Service-level user password authentication. You need the ArcIMS Servlet Connector to administer your ArcIMS site and to author and design ArcIMS Web pages.

In addition to the ArcIMS Servlet Connector, you can use the following connectors to link the Web server to the ArcIMS Application Server:

- ColdFusion® Connector
- ActiveX[®] Connector
- Java Connector

The ColdFusion and ActiveX connectors work with custom clients and translate their own languages into ArcXML. The ArcIMS—Java Connector communicates with the ArcIMS Application Server via a Java application or JSP client. Samples can be installed with the software. For more information on these custom connectors, see the Customizing ArcIMS series.

The ArcIMS—Java Connector runs on Windows and UNIX/Linux, the ColdFusion Connector runs on Windows and Solaris, and the ActiveX Connector runs on Windows only. If you install these connectors, the ArcIMS Servlet Connector must also be installed on your system for the custom connectors to communicate with ArcIMS.

After installation, see ArcIMS Servlet Connector in *ArcIMS Help* for information on the ArcIMS Servlet Connector and WMS. See *Customizing ArcIMS—ColdFusion Connector* for information on using the ColdFusion Connector. See *Customizing ArcIMS—ActiveX Connector* for information on using the ActiveX Connector. For JSP Connector information, see *Customizing ArcIMS—Java Connector*.

ArcIMS Spatial Servers

The ArcIMS Spatial Server is the backbone of ArcIMS. ArcIMS Spatial Servers process requests for maps and related information and serve the data to the client. For ArcIMS Metadata Service, ArcGIS™ and ArcSDE are required.

For ArcMap™ Server, ArcGIS and ArcObjects™ runtime files are required; ArcMap Server only runs on Windows platforms. ArcIMS Spatial Servers run on a Windows NT® Server, Windows NT Workstation, Windows 2000, Windows XP, or UNIX/Linux. A graphics card is not required.

Note: ArcMap Server installs the ArcObjects runtime files. ArcGIS cannot reside on the same computer as the ArcObjects runtime files; therefore, ArcGIS cannot reside on the same computer as ArcMap Server.

ArcIMS Viewers

ArcIMS provides client-side viewers:

- ArcIMS HTML Viewer
- ArcIMS—Java Viewer
- Metadata Explorer

The ArcIMS Viewers determine the functionality and graphical look of your Web site. The viewer is what appears in the Web browser when someone accesses your Web site.

The Java Viewers require a one-time ArcIMS Viewer download to the client user's computer and are only compatible with Web browsers that support Java plug-in functionality. See Installing ArcIMS Viewer for instructions regarding the Java client download.

The Metadata Explorer can only be used to view metadata from an ArcIMS Metadata Service. See *Creating and Using Metadata Services* for information on Metadata Explorer.

Five steps to get ArcIMS up and running

There are five steps required to get ArcIMS running:

- 1. Verify that your site meets ArcIMS system requirements.
- 2. Determine your ArcIMS site configuration.
- 3. Install ArcIMS.
- 4. Configure your Web server.
- 5. Configure ArcIMS.

These steps are outlined below.

For the latest requirements or for any changes to the Installation Guide, see the Readme.html file on the ArcIMS Web Site at http://support.esri.com.

What you need to get ArcIMS running

Step 1: Verify that your site meets ArcIMS system requirements

Hardware configuration

- Memory requirements
- Disk space

System software

- Operating system
- Web server
- Servlet engine
- Java Runtime Environment (J2SE JRE)
- Web browser

Step 2: Determine your ArcIMS site configuration

- ArcIMS Typical Configuration—All on a single computer
- ArcIMS Custom Configuration—ArcIMS Application Server Connectors
- ArcIMS Custom Configuration—ArcIMS ArcMap Server (Windows only)
- ArcIMS Custom Configuration—ArcIMS Manager Applications
- ArcIMS Custom Configuration—ArcIMS Spatial Servers
- ArcIMS Custom Configuration—Metadata Explorer

Step 3: Install ArcIMS

Step 4: Configure your Web server

- Configure your Web server and servlet engine.
- Create virtual directories.

Step 5: Configure ArcIMS

Set environment parameters.

See the installation flowchart for your platform for an overview of the steps required to get ArcIMS running:

- HP-UX
- IBM AIX
- Linux Red Hat
- Microsoft Windows
- SGI IRIX
- Sun Solaris

Questions, feedback, and information

Questions and feedback

ArcIMS Help provides information on how to contact ESRI Technical Support with questions or comments.

All questions and comments should be forwarded to ESRI Technical Support.

• Phone: 909-793-3774

• Fax: 909-792-0960

• E-mail: support@esri.com

 Hours: 6:00 a.m to 6:00 p.m., Pacific time, Monday through Friday, except ESRI holidays. If you are outside the United States, please contact your local ESRI distributor.

ArcIMS Knowledge Base

The ArcIMS Knowledge Base is a database that contains:

- Frequently Asked Questions
- How To instructions
- Troubleshooting tips
- Error messages

You can search the Knowledge Base using keywords, or you can browse through folders that contain information on different topics relating to ArcIMS.

You can access the ArcIMS Knowledge Base from ArcOnline at http://support.esri.com.

Using ArcIMS Help

If you need more information about a specific topic or procedure, use ArcIMS Help from within ArcIMS. You can locate what you need by searching the table of contents, finding terms in the index, or finding the number of times a term appears in a section.

Visit the ESRI home page on the Internet

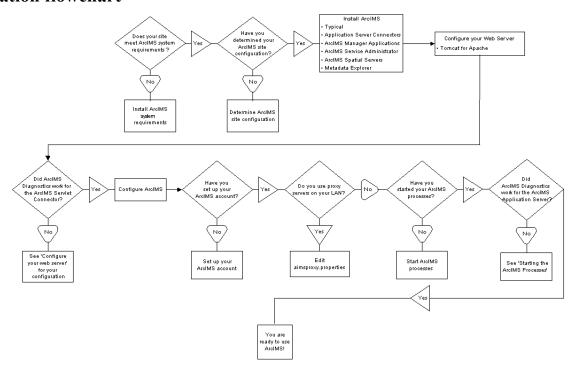
Visit the ESRI home page at www.esri.com for up-to-date information on ESRI software and services. It is an invaluable resource in helping you expand your understanding of geographic information system (GIS) technology and Internet mapping.

Visit the ArcIMS home page at www.esri.com/software/arcims for the latest information about ArcIMS including a showcase of ArcIMS-enabled Web sites.

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 and pocketbook. For more information, go to www.esri.com/education.

Installation flowchart



Step 1: Verify that your site meets ArcIMS system requirements

The ArcIMS Manager Applications—Author, Designer, and Administrator—must be installed together on one computer. They don't need to be installed on the Web server. ArcIMS Manager is not available on SGI IRIX due to limitations of Web browsers for IRIX.

Hardware configuration

Memory requirements

This can be a combination of disk-backed memory and physical memory:

- Manager Applications: 64 MB of RAM recommended
- ArcIMS Application Server: 256 MB of RAM recommended
- ArcIMS Spatial Server: 256 MB of RAM recommended per CPU
- HTML Viewers: 64 MB of RAM recommended
- Java Viewers and ArcExplorer—Java Edition: 128 MB of RAM recommended
- All components: 256 MB of RAM recommended per CPU

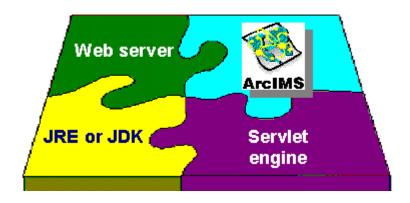
Disk space

The disk space requirements for all ArcIMS components are 732 MB.

For current information, see the ArcIMS installation program on the CD.

System software

The following system software is required to run ArcIMS.



Operating system

• IRIX (64-bit) 6.5.11

Note: ESRI recommends that you execute ArcIMS from a C shell. The instructions in this document are for a C shell environment setup only.

Note: The X Window System must be installed. X Window is usually installed by default with the operating system.

Web server

ArcIMS works in conjunction with Web server software, so a Web server must be installed and operational in order to start serving maps.

System administration access to the Web server computer is necessary, and knowing how to stop and start your Web server is mandatory.

ArcIMS is fully supported on the following Web server:

Apache Web Server for SGI with Jakarta-Tomcat as its servlet engine (hereafter referred to as Tomcat)

The servlet engine must use J2SE JRE or J2SE SDK 1.3.1.

See ArcIMS System Requirements at http://arconline.esri.com/arconline/sysreqs.cfm?PID=6 for other Web servers and their ESRI support level.

Font Requirement

The following True Type Fonts are required by ArcIMS Spatial Server:

- LucidaBrightRegular.ttf
- LucidaSansRegular.ttf
- LucidaTypewriterRegular.ttf

These fonts are located in \$AIMSHOME/jre/lib/fonts directory. These True Type Fonts must be placed in the /usr/lib/X11/fonts/Type1 directory.

Installing Chinese HKSCS Font

ESRI includes ZYSongHKSCS TrueType font on the ArcIMS 4.0.1 CD. This font contains Traditional Chinese (which are regular Traditional Chinese and HKSCS characters) and Simplified Chinese characters.

Font Installation procedure:

- 1. Copy ZYSongHKSCS5.ttf from \$AIMSHOME/fonts into the following font path:
 - /usr/lpp/X11/lib/X11/fonts/TrueType
- 2. Modify font.properties file for this ZYSongHKSCS font that is located in: <JREHOME>/lib or <JAVA_HOME>/lib by following the instructions at: http://java.sun.com/j2se/1.3/docs/guide/intl/fontprop.html

Java Runtime Environment

Java Runtime Environment 1.3.1 is a prerequisite for installing ArcIMS. Java Runtime Plug-in 1.3.1 will be installed under the ArcIMS Installation Directory/jre.

1. Create an environment variable for J2SE JRE. Add the following line to your .login or .cshrc file:

```
setenv JAVA_HOME <JRE Installation Directory>
```

Make sure the \$JAVA_HOME/bin is in the PATH.

2. Verify that you have the correct J2SE JRE running by typing:

```
java -version
```

For example, SGI IRIX should return the following:

```
java version "1.3.1"
```

Java (TM) 2 Runtime Environment, Standard Edition (build 1.3.1-mtibuild-011130-22:40)

Classic VM (build 1.3.1-mtibuild-011130-22:40, native threads, mipsjit)

ArcIMS Service Administrator requirements

The following software is required to use the ArcIMS Service Administrator:

• Java 2 Software Development Kit (J2SE SDK) from http://www.sgi.com/developers/devtools/languages/java.html

Metadata Service requirements

The following software is required to use the ArcIMS Metadata Service:

- ArcGIS 8.3
- ArcSDE 8.3

Metadata Explorer requirements

The following software is required to use the Metadata Explorer:

Java 2 Software Development Kit (J2SE SDK) from http://www.sgi.com/developers/devtools/languages/java.html

Web browser for ArcIMS Viewers

HTML Viewer: Netscape Communicator 4.76 or 4.77

The Java Viewer requires that a one-time download including the Java 2 Plug-in and ArcIMS Viewer Download be installed.

• Java Standard Viewer: Netscape Communicator 4.76 or 4.77

The Java Custom Viewer doesn't run in Netscape Communicator.

Note: See http://arconline.esri.com/arconline/sysreqs.cfm?PID=6 for the latest support information.

Note: All Web pages created on SGI IRIX can be viewed on Windows. See ArcOnline at http://support.esri.com for Web browser requirements on Windows.

Application Server Connectors

ArcIMS Application Server requires the following optional software if you will be creating custom Viewers using JSP:

JSP Connector

Java 2 Software Development Kit 1.3.x (J2SE SDK)
 For JSP information, see Customizing ArcIMS—JSP Connector.

ArcSDE

The following versions of ArcSDE are supported by ArcIMS:

Metadata users only

ArcSDE 8.3

Other users

- ArcSDE 8.0.x, ArcSDE 8.1.x, ArcSDE 8.2, or ArcSDE 8.3
- ArcSDE for Coverages 8.0.x, ArcSDE for Coverages 8.1.x, ArcSDE for Coverages 8.2, or ArcSDE for Coverages 8.3

Once you have the required software, see Step 2: Determine your ArcIMS site configuration.

Step 2: Determine your ArcIMS site configuration

Choosing an ArcIMS configuration for your system

ArcIMS provides the mechanism to allow ArcIMS Spatial Servers, ArcIMS Application Servers, and the Web server to communicate with one another to serve maps and data over the Internet to client Web browsers. An ArcIMS site consists of one or more computers that host the Web server, ArcIMS Application Server, ArcIMS Spatial Server, and data.

There are many possible ArcIMS site configurations. Some sites run all ArcIMS components on a single computer, and some are composed of multiple computers. The only requirement in a multiple computer environment is that you must install the ArcIMS Application Server Connectors and Manager (Windows) on the same computer as the Web server.

Configurations will vary depending on the available computing resources and the mapping services provided. For ArcIMS Spatial Servers, processing speed and the ability to handle the load are important. Will the ArcIMS Services perform process-intensive functions or create basic map displays? How many services will be running at one time? Will the Web server computer be dedicated to the Web site or used for other purposes as well? Answers to these questions will assist in ArcIMS site configuration planning.

Configure an ArcIMS Web site based on the anticipated number of users visiting the site and the number of maps generated each day. For example, a Web site with very few anticipated users, averaging 100 to 1,000 maps per day, could run from one computer. A high-volume Web site, with 100,000 to 1,000,000 maps per day, should be distributed to multiple ArcIMS Spatial Server computers.

The ArcIMS typical installation installs all standard components on one computer. ArcIMS also supports custom configurations for multiple ArcIMS Spatial Servers, ArcIMS Application Server Connectors, and Manager Applications.

The advantages of these different installation options are listed below.

Advantages of Different ArcIMS Installation Options		
Typical (ArcIMS on one computer)	 Limited computer resources. Quick and easy way to learn ArcIMS. Light Web site usage. Remotely access ArcIMS Manager using Microsoft Internet Explorer Web browser (Windows only). 	
Multiple ArcIMS Spatial Servers	Expand configuration.Add processing capabilities.Heavy Web site usage.	
ArcIMS Manager Applications	 Access ArcIMS functions without needing Internet Explorer Web browser. Solution for environments where Internet Explorer isn't available and for advanced users. 	

Application Server Connectors	Customize Web pages using JSP.
Metadata Explorer	 View metadata from an ArcIMS Metadata Service.

When you have determined your site configuration, see Step 3: Install ArcIMS.

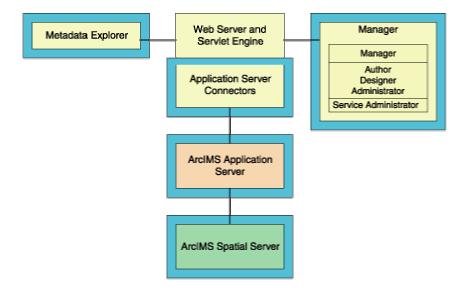
Step 3: Install ArcIMS

Choose the installation steps for your configuration:

- Doing a typical installation
- Installing ArcIMS custom Application Server Connectors
- Installing ArcIMS Manager Applications
- Installing ArcIMS Service Administrator
- Installing multiple ArcIMS Spatial Servers
- Installing Metadata Explorer

Doing a typical installation

In this scenario, your Web site uses the resources of one computer; Web server software and ArcIMS applications are installed on the same computer. This configuration is useful for those with limited resources or light server loads. See Overview for details on ArcIMS components.



Installing ArcIMS

Note: Make sure that the user account that installs ArcIMS has write permissions to the installation directory.

The install command has five options:

Usage: install <-help | -load | -remove | -verify >

Type install -help to read more about the installation procedure.

1. To install ArcIMS from the CD, become super user and put the ArcIMS CD into your CD drive:

% su

You are prompted for your super user password. If you don't know this password, contact your system administrator. If a /CDROM directory doesn't exist, create one:

mkdir /CDROM

The ArcIMS CD is automatically mounted. Before installing ArcIMS, exit super user mode:

exit

Note: For security reasons, don't install ArcIMS as super user. ESRI recommends that you create a separate user account for installing and administering ArcIMS.

2. To start ArcIMS installation, type the following command from anywhere on your system:

%/CDROM/ArcIMS/install -load

This will start the command-driven dialog for the ArcIMS software installation procedure. Default selections are noted in brackets []. To obtain a list of options or online help, type '?' at any prompt. You can quit the installation procedure at any time by typing 'quit' or 'q'. To return to a previous question, type the caret, '^'. Before continuing with the installation you will be asked to read the license agreement and accept it, or exit if you don't agree with the terms. The default is set to 'no' and you have to type 'yes' to proceed with the installation. Please read the license agreement file appropriate for your locale. The license agreement files are in Adobe Acrobat PDF format and are located at http://www.esri.com/licenseagreement. The English version can be found on the CD at /cdrom/license. ESRI is willing to license the software to you only if you accept and agree to the license agreement. If you have read and agree with the terms in the license agreement type 'yes' to continue the installation process, if not press <return> or type 'no' to exit the installation process.

- 3. At the Enter CD mount point: [/CDROM/ArcIMS] prompt, type the location and press <Return>.
- 4. At the Enter pathname to install directory prompt, type the path to where you want ArcIMS installed on your system. The ArcIMS version and date display.
- 5. At the ArcIMS Application Server Package numbers to load: [all] prompt, press <Return> to accept the default and install all packages.
- 6. At the ArcIMS Application Server Connectors Package numbers to load: [none] prompt, type "?" to display a list of available packages. Type the numbers of the packages you want to install separated by commas, type "all" to load all packages, or press <Return> to accept the default and load no packages.

Note: For ArcIMS to function, you need to install the Application Server and at least one connector.

7. At the ArcIMS Manager Applications Package numbers to load: [all] prompt, press <Return> to accept the default and install all packages.

Note: You must choose [all] to run ArcIMS Author, ArcIMS Administrator, and ArcIMS Designer.

- 8. At the ArcIMS Spatial Server Software Package numbers to load: [all] prompt, press < Return > to accept the default and install all packages.
- 9. At the ArcIMS Metadata Explorer/Gazetteer Data Package numbers to load: [all] prompt, press <Return> to accept the default and load all packages.
- 10. At the ArcIMS Sample Applications and Data Package numbers to load: [none] prompt, type "?" to display a list of available packages. Type the numbers of the packages you want to install separated by commas, type "all" to load all packages, or press <Return> to accept the default and load no packages.

Note: If you install any Sample packages, you need to install the Tutorial Data package.

The Package selection complete prompt and the package you chose to install display.

11. At the Is this correct? [yes] prompt, press < Return > to accept the default and install ArcIMS.

The size of the selected packages and available space display.

12. At the List file names while loading? [no] prompt, press <Return> to accept the default or type "yes" and press <Return>, if desired.

ArcIMS is installed, and the Finished loading package(s) message displays.

13. After installing ArcIMS, take the ArcIMS CD out of the CD drive.

Note: The Spatial Server uses TrueType fonts located in: /usr/lib/X11/fonts/Type1. ArcIMS Author and ArcExplorer—Java Edition use fonts from the font.properties file located in: <JREHOME>/lib or <\$JAVA_HOME>/lib. You can modify the font property file for your own font by following the instructions at: http://java.sun.com/j2se/1.3/docs/guide/intl/index.html.

Before you begin using ArcIMS, you must complete Step 4: Configure your Web server.

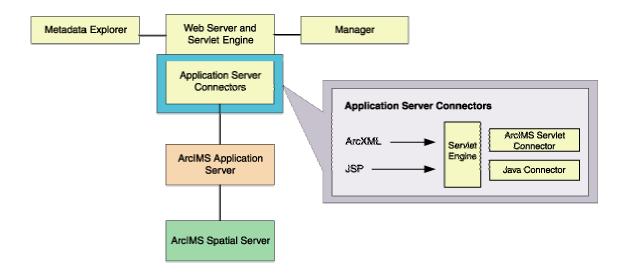
See the appropriate section to configure your Web server to run ArcIMS:

Configuring Tomcat for Apache

Installing ArcIMS custom Application Server Connectors

In this custom scenario, you select an ArcIMS Application Server Connector depending on the development environment you plan to use for creating Web pages. The supported ArcIMS Application Server Connectors on IRIX are Servlet with WMS and Java.

ArcIMS Application Server and Application Server Connector reside on the Web server. Each Web server can have more than one Application Server Connector, as long as they are of different types.



The Servlet Connector with WMS is the standard ArcIMS Connector. Select this connector if you plan to administer Web pages or use the Web design tools in ArcIMS (Author and Designer). The Servlet Connector also provides service-level user password authentication. WMS works within the OGC WMS 1.0.0 specification.

The Java Connector communicates with the ArcIMS Application Server and a JSP client.

Note: These instructions describe only the custom Application Server Connector installation. To install ArcIMS Application Server, ArcIMS Manager Applications, and ArcIMS Spatial Server, refer to Doing a typical installation.

Installing ArcIMS Application Server Connectors

Perform the following steps on the computer where you want to install ArcIMS Application Server and custom Connectors.

1. To install ArcIMS from the CD, become super user and put the ArcIMS CD into your CD drive:

% su

You are prompted for your super user password. If you don't know this password, contact your system administrator. If a /CDROM directory doesn't exist, create one:

mkdir /CDROM

The ArcIMS CD is automatically mounted. Before installing ArcIMS, exit super user mode:

exit

Note: For security reasons, don't install ArcIMS as super user. ESRI recommends that you create a separate user account for installing and administering ArcIMS.

2. To start ArcIMS installation, type the following command from anywhere on your system:

%/CDROM/ArcIMS/install -load.

This will start the command-driven dialog for the ArcIMS software installation procedure. Default selections are noted in brackets []. To obtain a list of options or online help, type '?' at any prompt. You can quit the installation procedure at any time by typing 'quit' or 'q'. To return to a previous question, type the caret, '^'. Before continuing with the installation you will be asked to read the license agreement and accept it, or exit if you don't agree with the terms. The default is set to 'no' and you have to type 'yes' to proceed with the installation. Please read the license agreement file appropriate for your locale. The license agreement files are in Adobe Acrobat PDF format and are located at http://www.esri.com/licenseagreement. The English version can be found on the CD at /cdrom/license. ESRI is willing to license the software to you only if you accept and agree to the license agreement. If you have read and agree with the terms in the license agreement type 'yes' to continue the installation process, if not press <return> or type 'no' to exit the installation process.

- 3. At the Enter CD mount point: [/CDROM/ArcIMS] prompt, type the location and press <Return>.
- 4. At the Enter pathname to install directory prompt, type the path to where you want ArcIMS Application Server Connectors installed on your system.

The ArcIMS version and date display.

- 5. At the ArcIMS Application Server Package numbers to load: [all] prompt, type "none" and press <Return>.
- 6. At the ArcIMS Application Server Connectors Package numbers to load: [none] prompt, type "?" to display a list of available packages. Type the numbers of the packages you are installing separated by commas, type "all" to load all packages, or press <Return> to accept the default and load no packages.

Note: For ArcIMS to function, you need to install the Application Server and at least one connector.

- 7. At the ArcIMS Manager Applications Package numbers to load: [all] prompt, type "none" and press <Return>.
- 8. At the ArcIMS Spatial Server Software Package numbers to load: [all] prompt, type "none" and press <Return>.
- 9. At the ArcIMS Metadata Explorer/Gazetteer Data Package numbers to load: [all] prompt, type "none" and press <Return>.
- 10. At the ArcIMS Sample Applications and Data Package numbers to load: [none] prompt, type "?" to display a list of available packages. Type the numbers of the packages you are installing separated by commas, type "all" to load all packages, or press <Return> to accept the default and load no packages.

Note: If you install any Sample packages, you need to install the Tutorial Data package.

The Package selection complete message and a list of the packages you chose to install display.

11. At the Is this correct? [yes] prompt, press <Return> to accept the default and install the ArcIMS Application Server and custom Connector packages.

The size of the selected packages and available space display.

12. At the List file names while loading? [no] prompt, press <Return> to accept the default or type "yes" and press <Return>, if desired.

ArcIMS Application Server and custom Connector are installed, and the Finished loading package(s) message displays.

13. After installing ArcIMS, unmount the ArcIMS CD and take it out of the CD drive. As super user:

umount /<dev>

where <dev> stands for the CD device.

Configure the connector you installed:

- ArcIMS Java Connector
- ArcIMS Servlet Connector
- WMS

Note: To install the Z39.50 Connector see Installing Metadata Explorer.

ArcIMS Java Connector

For information on using the ArcIMS Java Connector, see Customizing ArcIMS—Java Connector.

ArcIMS Servlet Connector

If you installed the ArcIMS Servlet Connector, before you begin using ArcIMS software, you must complete Step 4: Configure your Web server. See the appropriate section to configure your Web server to run ArcIMS:

Configuring Tomcat 3.2.3 for Apache 1.3.20

For information on the ArcIMS Servlet Connector, see ArcIMS Help.

WMS

To configure ArcIMS to use WMS, perform the following:

1. In a text editor, open the WMSEsrimap_prop file in the location where you placed it when you configured your Web server. For example:

Apache with Tomcat: <Tomcat Installation Directory>/webapps/ROOT/WEB-INF/classes

Note: If the file is not there, see Step 4: Configure your Web server.

- 2. Find enable and change it to enable=true.
- 3. Find appServerMachine and set it to the name of the computer where the ArcIMS Application Server is installed.
- 4. Find appServerClientPort and set it to the name of the port on which the Application Server is running (default is 5300).
- 5. Find capabilitiesDir and provide the path to the capabilities directory, for example, capabilitiesDir=/disk1/ArcIMS/capabilities
- 6. Find debug and set it to debug=true if you want detailed debug information. If you set it to true, the log file will be created inside the working directory.
- 7. Find workingDirectory and provide the path to the working directory, for example, workingDirectory=/disk1/ArcIMS/workingdir
- 8. Find reaspect and set it to true if you want to reaspect the generated map images.
- 9. Find defaultService and set it to a default ArcIMS Service name. If the WMS client doesn't specify the Service, then this default Service will be used.
- 10. Save and close the file.
- 11. Stop and start your Web server.

12. To test that WMS is installed and working, open your browser and type:

http://<localhost>/servlet/com.esri.wms.Esrimap?Cmd=ping

Note: If your Web server port is not set to the default port (port 80), then type the following:

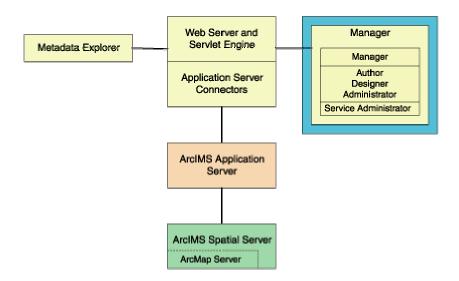
http://<localhost>:<port#>/servlet/com.esri.wms.Esrimap?Cmd=ping

The following should display: ArcIMS WMS-OGC Connector Version 4.0

For information on WMS, see ArcIMS Help.

Installing ArcIMS Manager Applications

In this custom scenario, ArcIMS Manager Applications can be installed on any computer on your network. This is optimal for UNIX/Linux users since Manager is not available for the UNIX/Linux environment.



Note: These instructions describe only the ArcIMS Manager Applications installation. To install ArcIMS Spatial Server, ArcIMS Application Server, and Application Server Connectors, refer to Doing a typical installation.

Installing ArcIMS Manager Applications

On the computer where you wish to install ArcIMS Manager Applications, perform the following steps:

1. To install ArcIMS from the CD, become super user and put the ArcIMS CD into your CD drive:

% su

You are prompted for your super user password. If you don't know this password, contact your system administrator. If a /CDROM directory doesn't exist, create one:

mkdir /CDROM

The ArcIMS CD is automatically mounted. Before installing ArcIMS, exit super user mode:

exit

Note: For security reasons, don't install ArcIMS as super user. ESRI recommends that you create a separate user account for installing and administering ArcIMS.

2. To start ArcIMS installation, type the following command from anywhere on your system:

%/CDROM/ArcIMS/install -load.

This will start the command-driven dialog for the ArcIMS software installation procedure. Default selections are noted in brackets []. To obtain a list of options or online help, type '?' at any prompt. You can quit the installation procedure at any time by typing 'quit' or 'q'. To return to a previous question, type the caret, '^'. Before continuing with the installation you will be asked to read the license agreement and accept it, or exit if you don't agree with the terms. The default is set to 'no' and you have to type 'yes' to proceed with the installation. Please read the license agreement file appropriate for your locale. The license agreement files are in Adobe Acrobat PDF format and are located at http://www.esri.com/licenseagreement. The English version can be found on the CD at /cdrom/license. ESRI is willing to license the software to you only if you accept and agree to the license agreement. If you have read and agree with the terms in the license agreement type 'yes' to continue the installation process, if not press <return> or type 'no' to exit installation process.

- 3. At the Enter CD mount point: [/CDROM/ArcIMS] prompt, type the location and press <Return>.
- 4. At the Enter pathname to install directory prompt, type the path to where you want ArcIMS Manager Applications installed on your system.

The ArcIMS version and date display.

- 5. At the ArcIMS Application Server Package numbers to load: [all] prompt, type "none" and press <Return>.
- 6. At the ArcIMS Application Server Connectors Package numbers to load: [none] prompt, press <Return> to accept the default and install no packages.
- 7. At the ArcIMS Manager Applications Package numbers to load: [all] prompt, press <Return> to accept the default and install all packages.
- 8. At the ArcIMS Spatial Server Software Package numbers to load: [all] prompt, type "none" and press <Return>.
- 9. At the ArcIMS Metadata Explorer/Gazetteer Data Package numbers to load: [all] prompt, type "none" and press <Return>.

The Package selection complete prompt and the package you chose to install display.

10. At the ArcIMS Sample Applications and Data Package numbers to load: [none] prompt, type "?" to display a list of available packages. Type the numbers of the packages you are installing separated by commas, type "all" to load all packages, or press <Return> to accept the default and load no packages.

Note: If you install any Sample packages, you need to install the Tutorial Data package.

The Package selection complete prompt and a list of the packages you chose to install display.

11. At the Is this correct? [yes] prompt, press <Return> to accept the default and install the ArcIMS Manager Applications packages.

The size of the selected packages and available space display.

12. At the List file names while loading? [no] prompt, press <Return> to accept the default or type "yes" and press <Return>, if desired.

ArcIMS Manager Applications are installed, and the Finished loading package(s) message displays.

13. After installing ArcIMS, take the ArcIMS CD out of the CD drive.

You are ready to use ArcIMS Manager Applications.

Note: ArcIMS Author and ArcExplorer—Java Edition use fonts from the font.properties file located in: <JREHOME>/lib or <\$JAVA_HOME>/lib. You can modify the font property file for your own font by following the instructions at: http://java.sun.com/j2se/1.3/docs/guide/intl/index.html.

If you wish to use ArcIMS Service Administrator to administer ArcIMS Services, see Configuring ArcIMS Service Administrator.

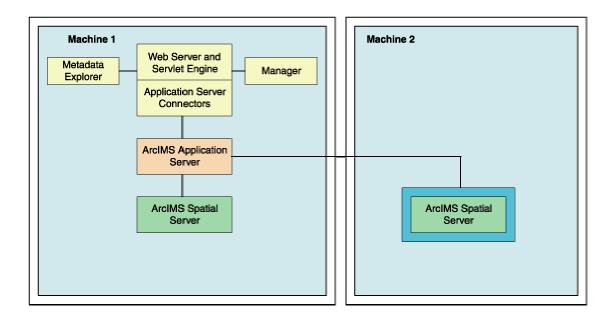
Installing ArcIMS Service Administrator

The ArcIMS Service Administrator is a remote site administration tool and can be used as an alternative to or in conjunction with ArcIMS Administrator. The ArcIMS Service Administrator uses the JavaServer Pages (JSP) tag libraries and the Java API (application program interface) of the ArcIMS Java Connector. Java 2 Software Development Kit (J2SE SDK) is required for ArcIMS Service Administrator.

- The ArcIMS Service Administrator is installed with a typical installation or with ArcIMS Manager Applications. If you plan to administer only ArcIMS Services, you need to:
 - 1. Install ArcIMS Manager Applications on the computer where you wish to use ArcIMS Service Administrator.
 - 2. Configure ArcIMS Service Administrator for your Web server.
- The ArcIMS Service Administrator can also be used to administer ArcSDE. To administer ArcSDE on UNIX/Linux, you need to do the following:
 - 1. Install ArcIMS Manager Applications on the computer where you wish to use ArcIMS Service Administrator.
 - 2. Configure ArcIMS Service Administrator for your Web server.
 - 3. Install and set up the optional ArcSDE Administrator component on the ArcIMS.

Installing multiple ArcIMS Spatial Servers

In this custom scenario, several computers run ArcIMS Spatial Servers and communicate with the Web server via TCP/IP. One computer runs Web server software with Manager Applications, ArcIMS Application Server, and Application Server Connectors, with multiple instances of ArcIMS Spatial Server. ArcIMS Application Server balances the load, maximizing speed and capacity if you have heavy application use.



Note: These instructions describe only ArcIMS Spatial Server installation. To install ArcIMS Manager Applications, ArcIMS Application Server, and Application Server Connectors, refer to Doing a typical installation.

Installing ArcIMS Spatial Server

Perform the following steps on the computer where you want to install an ArcIMS Spatial Server.

1. To install ArcIMS from the CD, become super user and put the ArcIMS CD into your CD drive:

% su

You are prompted for your super user password. If you don't know this password, contact your system administrator. If a /CDROM directory doesn't exist, create one:

mkdir /CDROM

The ArcIMS CD is automatically mounted. Before installing ArcIMS, exit super user mode:

exit

Note: For security reasons, don't install ArcIMS as super user. ESRI recommends that you create a separate user account for installing and administering ArcIMS.

2. To start ArcIMS installation, type the following command from anywhere on your system:

% /CDROM/ArcIMS/install -load

This will start the command-driven dialog for the ArcIMS software installation procedure. Default selections are noted in brackets []. To obtain a list of options or online help, type '?' at any prompt. You can quit the installation procedure at any time by typing 'quit' or 'q'. To return to a previous question, type the caret, '^'. Before continuing with the installation you will be asked to read the license agreement and accept it, or exit if you don't agree with the terms. The default is set to 'no' and you have to type 'yes' to proceed with the installation. Please read the license agreement file appropriate for your locale. The license agreement files are in Adobe Acrobat PDF format and are located at http://www.esri.com/licenseagreement. The English version can be found on the CD at /cdrom/license. ESRI is willing to license the software to you only if you accept and agree to the license agreement. If you have read and agree with the terms in the license agreement type 'yes' to continue the installation process, if not press <return> or type 'no' to exit installation process.

- 3. At the Enter CD mount point: [/CDROM/ArcIMS] prompt, type the location and press <Return>.
- 4. At the Enter pathname to install directory prompt, type the path to where you want ArcIMS Spatial Server installed on your system.

The ArcIMS version and date display.

- 5. At the ArcIMS Application Server Package numbers to load: [all] prompt, type "none" and press <Return>.
- 6. At the ArcIMS Application Server Connectors Package numbers to load: [none] prompt, press <Return> to accept the default and install no packages.
- 7. At the ArcIMS Manager Applications Package numbers to load: [all] prompt, type "none" and press <Return>.
- 8. At the ArcIMS Spatial Server Software Package numbers to load: [all] prompt, press <Return> to install the Spatial Server software.

The Package selection complete prompt and the package you chose to install display.

- 9. At the ArcIMS Metadata Explorer/Gazetteer Data Package numbers to load: [all] prompt, type "none" and press <Return>.
- 10. At the ArcIMS Sample Applications and Data Package numbers to load: [none] prompt, type "?" to display a list of available packages. Type the numbers of the packages you are installing separated by commas, type "all" to load all packages, or press <Return> to accept the default and load no packages.

Note: If you install any Sample packages, you need to install the Tutorial Data package.

The Package selection complete prompt and a list of the packages you chose to install display.

11. At the Is this correct? [yes] prompt, press <Return> to accept the default and install the ArcIMS Spatial Server packages.

The size of the selected packages and available space display.

12. At the List file names while loading? [no] prompt, press <Return> to accept the default or type "yes" and press <Return>, if desired.

ArcIMS Spatial Server is installed, and the Finished loading package(s) message displays.

13. After installing ArcIMS, unmount the ArcIMS CD and take it out of the CD drive. As super user:

umount /<dev>

where <dev> stands for the CD device.

14. In your environment, set the AIMSHOME variable to the location where you installed the spatial server component:

setenv AIMSHOME < ArcIMS Spatial Server Installation Directory > / ArcIMS

15. Modify the startup parameters for the ArcIMS Monitor process located in the file: \$AIMSHOME/Xenv/aimsmonitor. Search for the section:

"OPTIONALLY MODIFY THE VALUES OF THESE VARIABLES".

- a. Set the value of AIMSHOME to the same location as in Step 14 above.
- b. Set the value of JAVA HOME to the location of your J2SE JRE.

Note: Java VM is assumed to be located at \$JAVA HOME/bin/java.

- 16. Make sure that the following directories are mounted and visible on this computer:
 - a. The server output directory that was established as a virtual directory on your Web server (see Step 4: Configure your Web server for your configuration)
 - b. All data directories referenced in all your map configuration files

Note: These directories must be mounted using exactly the same pathnames as on the Web server computer; for example, if your map configuration files reference data located in the directory /machine2/data, then /machine2 must be mounted on this computer as well. The path /net/machine/machine2/data is not considered the same, and ArcIMS will not work.

17. The ArcIMS Monitor process relies on the Monitor properties file for some of its information. Navigate to \$AIMSHOME/Monitor/Monitor.properties, open the file in a text editor, and follow the descriptions to customize the process. The Monitor properties file needs to be edited prior to starting the aimsmonitor process.

Edit the Monitor properties file and change the value "localhost" to the name of your Application Server. For example:

registryHost = <server name>.esri.com

18. Start the ArcIMS Monitor process.

You may set up the ArcIMS Monitor process as a daemon that starts up every time your computer is rebooted, or you may choose to start it manually when required.

- a. To start the ArcIMS Monitor process at system boot, refer to the instructions provided in the file \$AIMSHOME/Xenv/aimsmonitor.
- b. To start ArcIMS Monitor manually, navigate to the \$AIMSHOME/Xenv directory and type the following:

./aimsmonitor start &

19. Start ArcIMS Administrator on the Web server computer (or do a Site Refresh in Administrator if it is already running) to see the new Spatial Server listed under Servers.

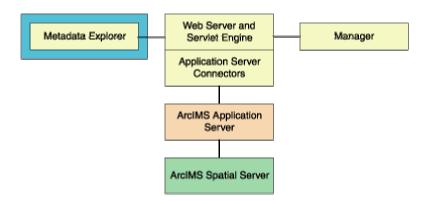
Note: The Spatial Server uses TrueType fonts located in: /usr/lib/X11/fonts/Type1.

After installing an ArcIMS Spatial Server, see *Using ArcIMS*, 'Administering your site,' for details on how to administer the ArcIMS Spatial Server.

See ArcIMS Help for more information on configuring your Web site.

Installing Metadata Explorer

In this custom scenario, you install Metadata Explorer and Gazetteer data to view metadata from an ArcIMS Metadata Service. Java 2 Software Development Kit (J2SE SDK) is required for ArcIMS Metadata Explorer.



Note: These instructions describe only Metadata Explorer and Gazetteer data installation. To install the ArcIMS Host (ArcIMS Manager, ArcIMS Application Server, ArcIMS Spatial Server, and Application Server Connectors), refer to Doing a typical installation.

Installing Metadata Explorer

On the computer where you wish to install Metadata Explorer, perform the following steps.

1. To install ArcIMS from the CD, become super user and put the ArcIMS CD into your CD drive:

% su

You are prompted for your super user password. If you don't know this password, contact your system administrator. If a /CDROM directory doesn't exist, create one:

mkdir /CDROM

The ArcIMS CD is automatically mounted. Before installing ArcIMS, exit super user mode:

exit

Note: For security reasons, don't install ArcIMS as super user. ESRI recommends that you create a separate user account for installing and administering ArcIMS.

2. To start ArcIMS installation, type the following command from anywhere on your system:

% /CDROM/ArcIMS/install -load.

This will start the command-driven dialog for the ArcIMS software installation procedure. Default selections are noted in brackets []. To obtain a list of options or online help, type '?' at any prompt. You can quit the installation procedure at any time by typing 'quit' or 'q'. To return to a previous question, type the caret, '^'. Before continuing with the installation you will be asked to read the license agreement and accept it, or exit if you don't agree with the terms. The default is set to 'no' and you have to type 'yes' to proceed with the installation. Please read the license agreement file appropriate for your locale. The license agreement files are in Adobe Acrobat PDF format and are located at http://www.esri.com/licenseagreement. The English version can be found on the CD at /cdrom/license. ESRI is willing to license the software to you only if you accept and agree to the license agreement. If you have read and agree with the terms in the license agreement type 'yes' to continue the installation process, if not press <return> or type 'no' to exit the installation process.

3. At the Enter CD mount point: [/CDROM/ArcIMS] prompt, type the location and press <Return>.

- 4. At the Enter pathname to install directory prompt, type the path to where you want Metadata Explorer installed. The ArcIMS version and date display.
- 5. At the ArcIMS Application Server Package numbers to load: [all] prompt, type "none" and press <Return>.
- 6. At the ArcIMS Application Server Connectors Package numbers to load: [none] prompt, press <Return> to accept the default and install no packages.
- 7. At the ArcIMS Manager Applications Package numbers to load: [all] prompt, type "none" and press <Return>.
- 8. At the ArcIMS Spatial Server Software Package numbers to load: [all] prompt, type "none" and press <Return>.
- 9. At the ArcIMS Metadata Explorer/Gazetteer Data Package numbers to load: [all] prompt, press <Return> to accept the default and load all packages.
- 10. At the ArcIMS Sample Applications and Data Package numbers to load: [none] prompt, type "?" to display a list of available packages. Type the numbers of the packages you are installing separated by commas, type "all" to load all packages, or press <Return> to accept the default and load no packages.

Note: If you install any Sample packages, you need to install the Tutorial Data package.

The Package selection complete prompt and a list of the packages you chose to install display.

- 11. At the Is this correct? [yes] prompt, press <Return> to accept the default and install the ArcIMS Manager Applications packages. The size of the selected packages and available space display.
- 12. At the List file names while loading? [no] prompt, press <Return> to accept the default or type "yes" and press <Return>, if desired. ArcIMS Metadata Explorer is installed, and the Finished loading package(s) message displays.
- 13. After installing ArcIMS, take the ArcIMS CD out of the CD drive.

Note: The Z39.50 Connector is installed with the Metadata Explorer. In order to use the Z39.50 connector it must be configured. See Configuring the Z39.50 Connector.

See Creating and Using Metadata Services for information on Metadata Explorer.

You need to configure your Web server to use ArcIMS Metadata Explorer.

Configuring the **Z39.50** Connector

The Z39.50 Connector must be installed prior to configuring. For information on installing the Z39.50 Connector see Installing Metadata Explorer.

To configure ArcIMS with Z39.50, perform the following.

- 1. In a text editor, open z3950.properties.
 - <ArcIMS Installation Directory>/ArcIMS/Metadata/Z3950Connector/z3950.properties
- 2. If necessary, change the port number the Z39.50 Connector will use.

```
port=210
```

The default port number is 210 but it can be modified depending on your network configuration.

3. Edit defaultServiceName=MyMetadataService to match your Metadata Service name.

If you have not created your Metadata Service yet, accept the default value and edit the property as necessary at a later date

See Creating and Using Metadata Services for details on creating the necessary Metadata Service.

4. The default connection type is HTTP. If utilizing TCP/IP connection protocols, proceed to Step 7. connectionType=http

5. Set the URL of the server hosting ArcIMS services.

```
url=http://<localhost>.<domain>.com
```

6. If browsing of the Metadata Service used in Step 3 is restricted by username and password, set these values. The username and password remain blank if browse access is unrestricted.

username=

password=

If you have not created your Metadata Service yet, accept the default blank values and edit the property as necessary at a later date.

See Creating and Using Metadata Services or ArcIMS Help for details on the methods used to restrict access to services. Proceed to Step 9.

7. If connectionType=http in Step 4 above, proceed to Step 9.

If connectionType=tcp, find appServerMachine, set it to the name of the computer where ArcIMS Application Server is installed, and remove the comment mark (#) preceding the property.

appServerMachine=hostname

8. Find appServerPort, set it to the port on which the Application Server is running, and remove the comment mark (#) preceding the property.

appServerPort=5300

The default is 5300

- 9. Save and close the file.
- 10. Execute the file z3950server.sh

<ArcIMS Installation Directory>/ArcIMS/Metadata/Z3950Connector/z3950server.sh

Installation of the Z39.50 Connector is complete. However, the connector is not functional until your have loaded the required Z39.50 specifications into your ArcSDE metadata tables. This step cannot be performed until you have created your Metadata Service. If you already have your Metadata Service created and in place, proceed to the next section, 'Loading the Z39.50 specifications.' If not, see *Creating and Using Metadata Services* for details on setting it up and loading the Z39.50 specifications into your metadata tables.

Note: If you are using TCP/IP, the connector must also be configured for authentication of users. Detailed steps are provided in *Creating and Using Metadata Services*.

Loading the Z39.50 specifications

The following step cannot be performed until you have created your Metadata Service. If you have not created your service, see *Creating and Using Metadata Services* for details on setting it up and loading the Z39.50 specifications into your metadata tables.

Execute the command-line utility that loads the necessary Z39.50 parameters into your SDE metadata tables. It's located at:

• ArcIMS/Metadata/Commands/mdzcodeloader

Command usage:

```
mdzcodeloader.exe <input_file> <sde_server_machine> <sde_instance> <database> <username> <password> {table_name_prefix} {logfile}
```

- <input_file>: The information to load ArcSDE tables is defined in two files—GEO_mandatory.xml and GEO_expanded.xml. For setting up a basic configuration, use GEO_mandatory.xml as your input file. See Creating and Using Metadata Services for details on these files.
- <sde_server_machine>: The name of the ArcSDE host machine.

- <sde_instance>: The service or port number for ArcSDE.
- <database>: The ArcSDE database name. Use the same database name used in the <SDEWORKSPACE> element of your Metadata Service configuration file (*.axl). Use "" or # to accept the default value.
- <username>: The ArcSDE database username. Use the same username used in the <SDEWORKSPACE> element of your Metadata Service configuration file (*.axl).
- {table_name_prefix}: The prefix name for your metadata tables in ArcSDE. Use the same prefix used in the <TABLE_NAME> element of your Metadata Service configuration file (*.axl). The default prefix name for ArcIMS metadata tables, IMSMETADATA will be used if you don't specify a prefix name in your command.
- {logfile}: File name used to log any errors generated during the loading of the Z39.50 data. The default name, mdzcodeloader.log, will be used if you don't specify one in your command.

For example:

mdzcodeloader GEO_mandatory.xml my.sde.machine 5151 "" user123 pass456 mymetadata.

Step 4: Configure your Web server

Choose the steps for your Web server and servlet engine:

Configuring Tomcat 3.2.3 for Apache 1.3.20

Configuring Tomcat 3.2.3 for Apache 1.3.20

After installing ArcIMS on your system, you must configure the Apache Web Server and Tomcat for ArcIMS. These instructions assume Apache and Tomcat are already running properly. If your Web server and servlet engine are not operational, contact your system administrator before you proceed. See www.apache.org for information on problems with Apache and Tomcat.

Setting up your Web server for ArcIMS

- 1. Open <Apache Installation Directory>/conf/httpd.conf in a text editor. Verify that the tomcat-apache.conf file is declared as an include in the httpd.conf file. If it is not declared, add the following at the bottom of the httpd.conf file:
 - include <Tomcat Installation Directory>/conf/tomcat-apache.conf
- 2. Verify that the line ApJServMount /servlet /ROOT is included in the tomcat-apache.conf file. If it is not listed, add it to the end of the file.
- 3. Save and close the file.
- 4. Copy the following from <arcIMS Installation Directory>/ArcIMS/Middleware/servlet_connector to <Tomcat Installation Directory>/webapps/ROOT/WEB-INF/classes:
 - com directory
 - Esrimap_prop
 - ServletConnector Res.properties
 - ServletConnector Res en US.properties
 - WMSEsrimap_prop
- 5. Open the Esrimap_prop file in a text editor.
- 6. Change the value of appServerMachine to the name of your Application Server computer. For example:
 - appServerMachine=<server name>.esri.com
- 7. Save and close the file.

Creating virtual directories

After installing ArcIMS, you must create virtual directories for output and website. A virtual directory is a mapped location on the Web server to a physical path.

- 8. Open the file <Apache Installation Directory>/conf/httpd.conf.
- 9. In the Alias section, add the following for website and server output:

Alias /output "/<Path to output directory>/output"

<Directory "/<Path to output directory>/output">

Options Indexes MultiViews

AllowOverride None

Order allow, deny

Allow from all

</Directory>

Alias /website "/<Path to website directory>/website"

<Directory "/<Path to website directory>/website">

Options Indexes MultiViews

AllowOverride None

Order allow, deny

Allow from all

</Directory>

10 For the Web pages designed in ArcIMS to start automatically, make sure your DirectoryIndex line includes default.htm. For example:

DirectoryIndex index.html default.htm

11. Save and close the file.

Making ArcIMS files available to Web users

12. To provide your Web users with the ArcIMS files that are necessary to view your Java Web pages, you need to do the following:

cp -r <ArcIMS Installation Directory>/ArcIMS/ViewerDownLoad/install <Path to website directory>

For more information, see Installing ArcIMS Viewer.

Using the Diagnostics tool to test your ArcIMS installation

- 13. Stop the Tomcat and Apache services.
- 14. Restart the Tomcat and Apache services by typing:

setenv JAVA HOME <J2SE SDK Installation Directory>

setenv PATH \$JAVA_HOME/bin:\$PATH

<Tomcat Installation Directory>/bin/startup.sh

<Apache Installation Directory>/bin/apachectl start

- 15 Open <ArcIMS Installation Directory>/ArcIMS/Xenv/ArcIMS_Diagnostics/ArcIMS_Diagnostics.html in Netscape. The ArcIMS Diagnostics tool displays.
- 16. Select your Web server protocol, type your Web server name including domain, and type your port number. The default is 80.
- 17. Click 1 to test the ArcIMS Servlet Connector.

If this test is successful, your ArcIMS Servlet Connector is configured correctly.

If you receive an error message, select the error number in the dropdown list and click View. The error number and a description display. Follow the instructions in the description to fix the problem and try the Diagnostics tool again.

See WMS for information on configuring for WMS.

See Configuring Tomcat for Apache for ArcIMS Service Administrator for information on configuring ArcIMS Service Administrator.

See Configuring Tomcat for Apache for Metadata Explorer for information on configuring Metadata Explorer.

See Step 5: Configure ArcIMS for instructions on running ArcIMS.

Configuring Tomcat 3.2.3 for Apache 1.3.20 for ArcIMS Service Administrator

If you wish to use ArcIMS Service Administrator to remotely administer ArcIMS services, you must configure your Web server:

- 1. Navigate to <ArcIMS Installation Directory>/ArcIMS/Administrator and copy the esriadmin directory to <Tomcat Installation Directory>/webapps.
- 2. In a text editor, open <ArcIMS Installation
 - Directory>/ArcIMS/Middleware/Application Server/AppServer.properties.
- 3. Find the preferenceFile parameter and edit it to point to the sitePreferences.properties file: preferenceFile=<ArcIMS Installation Directory>/ArcIMS/Middleware/Application_Server/sitePreferences.properties
- 4. Save and close the file.
- 5. Stop the Tomcat and Apache services.
- 6. Restart the Tomcat and Apache services by typing:

```
setenv JAVA_HOME <J2SE SDK Installation Directory>
```

setenv PATH \$JAVA_HOME/bin:\$PATH

<Tomcat Installation Directory>/bin/startup.sh

<Apache Installation Directory>/bin/apachectl start

See Using ArcIMS, 'Appendix A: Using ArcIMS Service Administrator,' for information.

See Configuring Tomcat 3.2.3 for Apache 1.3.20 for Metadata Explorer for information on configuring Metadata Explorer.

See Step 5: Configuring ArcIMS for the final step required to get ArcIMS running.

Setting up ArcSDE UNIX and Linux Servers for ArcIMS Service Administrator

Introduction

This document describes how to set up ArcSDE UNIX and Linux servers for use with the ArcIMS Service Administrator. This document presumes that you have already installed and configured your ArcSDE Server for the DB2, Informix, and Oracle relational database management systems.

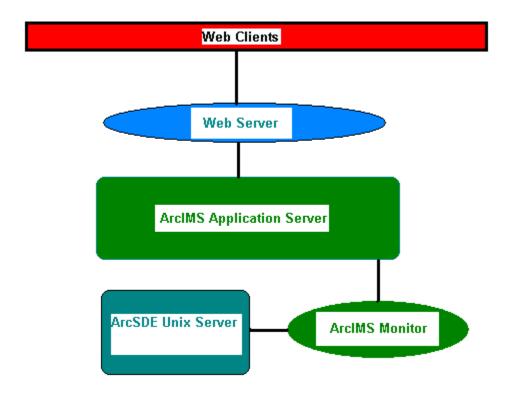
To use an ArcSDE Server with ArcIMS Service Administrator, you should already have installed ArcIMS Service Administrator and configured your Web server for ArcIMS Service Administrator. See the ArcIMS Service Administrator instructions for your platform: HP-UX, IBM AIX, Linux Red Hat, SGI IRIX, or Sun Solaris.

Background

The ArcIMS Service Administrator is a JavaServer Pages (JSP) application. It uses a presentation tier within a Web browser to administer an ArcSDE service. The ArcIMS Monitor and ArcIMS Application Server are used to direct SDE administration requests to an ArcSDE Server. Functionality administered at this release includes:

- Start, stop, pause, resume an ArcSDE three tier service.
- List, terminate, or terminate all ArcSDE gsrvr connections.
- Retrieve an ArcSDE server status, including number of connections and release number.

This Web based administrator uses the ArcIMS Application Server and ArcIMS Monitor to send requests to the ArcSDE Application Server. A user makes a request through an html page. This page is generated by JSP, which uses a proxy tier to generate ArcXML requests which are sent through the application server to an ArcIMS monitor. The ArcIMS monitor then generates ArcSDE instance management requests.



Setting up the ArcSDE Server

- 1. Install and configure ArcSDE—You must install and configure your ArcSDE Server first. Make sure you can start your ArcSDE service with the sdemon -o start command. Make sure the services.sde file in \$SDEHOME/etc contains a valid service name entry: sde82_inf 5200/tcp
- 2. You must also have the jsde82_sdk.jar and the jsde82_sdkres.jar files in your CLASSPATH. These JAR files can be installed from the ArcSDE installation CD. The easiest way to locate them in your CLASSPATH is to place them into your J2SE SDK or J2SE JRE installation directory under the lib/ext folder.
- 3. Install ArcIMS Monitor for your platform onto your ArcSDE Server: HP-UX, IBM AIX, Linux Red Hat, SGI IRIX, or Sun Solaris.

You should run the install as the same user who owns the SDE binaries and directories. Most likely, this will be the SDE user.

- 4. Once the software is installed:
 - a. Type: cd <ArcIMS Installation Directory>/ArcIMS/Monitor
 - b. Open the Monitor properties file in a text editor:
 - c. Change the registryHost setting from localhost to your ArcIMS Application Server: registryHost=<server name>.<domain>.com
 - d. Uncomment the sdePropertiesFilename parameter: sdePropertiesFilename=Sde.properties
 - e. Save and close the file.
- 5. Open the Sde.properties file in that same directory in a text editor:
 - a. Uncomment the instanceNames property and set it equal to your ArcSDE service name: instanceNames=esri_sde
 - b. Uncomment the portNumbers property and set it equal to your ArcSDE server port number: portNumbers=5151

- c. Uncomment the sdehomes property and set it equal to your \$SDEHOME path: sdehomes=/<server name>/sde82
- 6. Open the aimsmonitor script in the <ArcIMS Installation Directory>/Xenv directory in a text editor:
 - a. Uncomment the AIMSHOME property and set it to the path of your ArcIMS Installation Directory: AIMSHOME=/<server name>/ArcIMS; export AIMSHOME
 - b. Uncomment the JAVA_HOME property and set it to the path to your Java or J2SE JRE installation: JAVA_HOME=/usr/java/jre1.3.1_02

Note: For this utility, you must have J2SE SDK or J2SE JRE installed. You can install this from the ArcIMS installation CD.

- 7. Uncomment the \$LD_LIBRARY_PATH and \$LIBPATH properties accordingly. Append your existing \$LD_LIBRARY_PATH or \$LIBPATH to this entry as well.
- 8. Start the ArcIMS monitor in the \$AIMSHOME/Xenv directory:
 - ./aimsmonitor start &
- 9. Open ArcIMS Service Administrator and login. If you have set up the software correctly, you will see an ArcSDE option.

See Using ArcIMS, 'Appendix A: Using ArcIMS Service Administrator,' for information on the ArcIMS Service Administrator.

For information about installing, configuring or running ArcSDE, refer to the appropriate ArcSDE documentation.

Configuring Tomcat 3.2.3 for Apache 1.3.20 for Metadata Explorer

If you wish to use Metadata Explorer, you must configure your Web server:

- 1. Navigate to <ArcIMS Installation Directory>/ArcIMS/Metadata and copy the metadataexplorer directory to <Tomcat Installation Directory>/webapps.
- 2. Stop the Tomcat and Apache services.
- 3. Restart the Tomcat and Apache services by typing:

```
setenv JAVA_HOME <J2SE SDK Installation Directory>
setenv PATH $JAVA_HOME/bin:$PATH
```

- <Tomcat Installation Directory>/bin/startup.sh
- <Apache Installation Directory>/bin/apachectl start

See Creating and Using Metadata Services for information on Metadata Explorer.

See Configuring Tomcat 3.2.3 for Apache 1.3.20 for ArcIMS Service Administrator for information on configuring ArcIMS Service Administrator.

See Step 5: Configuring ArcIMS for the final step required to get ArcIMS running.

Step 5: Configure ArcIMS

Perform the following activities to set up your ArcIMS environment:

- Setting up your ArcIMS account
- Using ArcIMS with a proxy server
- Starting the ArcIMS processes
- Running ArcIMS

ESRI recommends that you execute ArcIMS from a C shell. The following instructions are for a C shell environment setup.

Setting up your ArcIMS account

ESRI recommends that you set up a separate account for installing and administering ArcIMS.

1. Add the following lines to your .login or .cshrc file:

setenv AIMSHOME <ArcIMS Installation Directory>/ArcIMS

Make sure that \$AIMSHOME/bin is in the PATH and \$AIMSHOME/lib and \$AIMSHOME/bin are in the LD LIBRARY PATH.

2. To enable the changes, type:

% source <.login or .cshrc>

The \$AIMSHOME/Xenv directory contains sample system startup files such as the .login and .cshrc files.

3. Copy the \$AIMSHOME/Xenv/aimsdefaults.properties file to your HOME directory.

% cp \$AIMSHOME/Xenv/aimsdefaults.properties \$HOME

4. Edit the \$HOME/aimsdefaults.properties file:

Note: Do not use system or user variables in this file. Provide the complete path.

- a. Replace all references to ARCIMSHOST with the full name of your host computer.
- b. Add a working directory location. Updating this variable will save time in navigating to the location where map configuration files are stored. To change this location, you must add a path to the following variable:

WorkingDir=<path to location where you wish to store map configuration files>

c. For geocoding, you must add a path to the following variable:

IndexBuilderEXE=<ArcIMS Installation Directory>/ArcIMS/IndexBuilder/aimsindxb.exe

d. Update the value of the following variable to point to the location of the image output directory:

ImagePath=/disk1/ArcIMS/output

e. Update the value of the following line to point to the location of a valid browser:

WebBrowser=<Netscape Installation Directory>/netscape

f. To access ArcIMS Help, update the value of the following line to reflect the location of your ArcIMS installation:

ArcIMSHelp=<ArcIMS Installation Directory>/Manager/Help/arcims help.htm

g. Update the value of the following variable to point to the location of the Web site where created sites are output:

WebSiteDir=/disk1/ArcIMS/website

Using ArcIMS with a proxy server

Use the Proxy Server properties to specify whether your LAN uses a proxy server to connect to the Internet. A proxy server is a computer on your LAN that connects to the Internet without compromising the security of your internal network. If you are not sure how your LAN connects to the Internet, contact your system administrator.

If you use proxy servers, then set the appropriate properties in the aimsproxy properties file, which is located in your \$HOME directory.

- If your LAN uses a proxy server to connect to the Internet for HTTP protocol requests:
 - 1. Open \$AIMSHOME/Xenv/aimsproxy.properties in a text editor.
 - 2. Set the HostName and Port of the proxy server to use. For example:

```
httpproxyhost=proxy.esri.com
httpproxyport=5000
```

3. After editing the aimsproxy.properties file, copy it to your \$HOME directory:

```
cp $AIMSHOME/Xenv/aimsproxy.properties $HOME
```

- If your LAN connects to the Internet via a proxy server using a secure HTTP protocol (HTTPS):
 - 1. Open \$AIMSHOME/Xenv/aimsproxy.properties in a text editor.
 - 2. Set the HostName and Port of the https proxy server to use. For example:

```
httpsproxyhost=httpsproxy.esri.com
httpsproxyport=5010
```

3. After editing the aimsproxy.properties file, copy it to your \$HOME directory:

```
cp $AIMSHOME/Xenv/aimsproxy.properties $HOME
```

 If your LAN doesn't use a proxy server and is directly connected to the Internet, do not set these properties. By default, they are not set.

Starting the ArcIMS processes

Three scripts are located in the \$AIMSHOME/Xenv directory. These scripts are used to start the ArcIMS processes. They are:

- aimsappsrvr—Starts and Stops the ArcIMS Application Server
- aimsmonitor—Starts and Stops the ArcIMS Monitor
- aimstasker—Starts and Stops the ArcIMS Tasker

Note: To start the ArcIMS Monitor process at system boot, refer to the instructions provided in the file \$AIMSHOME/Xenv/automatic_startup_instructions.

The ArcIMS processes rely on property files for some of their information. These files are located at:

- Application Server: \$AIMSHOME/Middleware/Application Server/AppServer.properties
- Monitor: \$AIMSHOME/Monitor/Monitor.properties
- Tasker: \$AIMSHOME/Middleware/Tasker/Tasker.properties

Each file contains a description of the various settings. Follow the descriptions to customize the processes. The Monitor properties and the Tasker properties files need to be edited prior to starting the aimsmonitor and aimstasker processes.

1. Edit the Monitor properties file and change the value "localhost" to the name of your Application Server. For example:

registryHost = <server name>.esri.com

2. Edit the Tasker properties file and change the value "localhost" to the name of your Application Server, for example:

registryHost = <server name>.esri.com

Change the value of "taskFile" to the path where the Tasks.xml file is located.

Also, edit the Tasks.xml file so that it contains a valid output path.

- To start the processes manually, navigate to the \$AIMSHOME/Xenv directory and start the services in the following order:
 - ./aimsappsrvr start &
 - ./aimsmonitor start &
 - ./aimstasker start &
- 4. To test the processes, open <ArcIMS Installation

Directory>/ArcIMS/Xenv/ArcIMS_Diagnostics/ArcIMS_Diagnostics.html in Netscape. The ArcIMS Diagnostics displays.

- a. Select your Web server protocol, type your Web server name including domain, and type your port number. The default is 80.
- b. Click 2 to test the ArcIMS Application Server.

If this test is successful, your ArcIMS Application Server is configured correctly.

If you receive an error message, select the error number in the dropdown list. The error number and a description display. Follow the instructions in the description to fix the problem and try the Diagnostics tool again.

- To stop the processes manually, navigate to the \$AIMSHOME/Xenv directory and stop the services in the following order:
 - ./aimstasker stop
 - ./aimsmonitor stop
 - ./aimsappsrvr stop

Running ArcIMS

The various ArcIMS components can be launched by typing the following commands at the system prompt:

- aimsadmin
- aimsauthor
- aimsdesigner

The scripts are located in the \$AIMSHOME/bin directory and are accessed by including this directory in the \$PATH variable.

You are ready to use ArcIMS.

Troubleshooting

Most problems associated with starting ArcIMS occur because of a problem with the system environment. Often a critical step was missed during the installation or configuration of the software. This topic reviews common problems with suggested approaches to solving them.

- The ports used by ArcIMS are already in use on my system.
- My ArcIMS Catalog hangs when I select local data.
- When I run aimsadmin for the first time or after deleting *.sez files, there are no ArcIMS Virtual Servers available.
- Additional Online Troubleshooting articles

Problem: The ports used by ArcIMS are already in use on my system.

Solution:

Change the port numbers ArcIMS uses. ArcIMS uses predefined ports to communicate between the Application Server and the Servlet Connector and between the Application Server and the Spatial Server.

The default ports are:

- 5300 for communication between the Application Server and the Servlet Connector.
- 5353 for communication between the Application Server and the Spatial Server.

If there is a conflict with existing ports, it will be necessary to change the ArcIMS ports. Follow these steps:

- 1. Edit the following lines in \$AIMSHOME/Middleware/servlet_connector/Esrimap_prop.
 - appServerMachine=APPSMACHINE
 - appServerClientPort=5300 **Change port number
- 2. Edit the following lines in \$AIMSHOME/Middleware/ Application Server/AppServer.properties.
 - connectorPort=5300 **Change port number
 - regPort=5353 **Change port number
- 3. Edit the following line in the \$AIMSHOME/Monitor/Monitor.properties:
 - registryPort=5353
 - Change 5353 to the regPort assigned in Step 2.
- 4. Shut down the ArcIMS Tasker, ArcIMS Monitor, and ArcIMS Application Server processes:
 - ./aimstasker stop
 - ./aimsmonitor stop
 - ./aimsappsrvr stop
- 5. Restart your Web server. Then start the ArcIMS Application Server, ArcIMS Monitor, and the ArcIMS Tasker processes:
 - ./aimsappsrvr start &
 - ./aimsmonitor start &
 - ./aimstasker start &

Problem: My ArcIMS Catalog hangs when I select local data.

Solution:

On UNIX/Linux, ArcIMS works best with Automount file systems as opposed to static mount file systems.

When a static mount NFS server is down, just as performing an ls on root (/) will hang, ArcIMS will hang if you select the local data access option in the ArcIMS Catalog.

Problem: When I run aimsadmin for the first time or after deleting *.sez files, there are no ArcIMS Virtual Servers available.

Solution:

Exit aimsadmin and reinitiate it. This should resolve the problem.

Additional Online Troubleshooting articles:

Troubleshooting ArcIMS Installation:

ArcIMS Viewer must be removed before installing ArcIMS - Article 23357 at http://support.esri.com/search/KbDocument.asp?dbid=23357

Post installation setup - Web server servlet engine configuration completed with errors - Article 23672 at http://support.esri.com/search/KbDocument.asp?dbid=23672

Error: Please enter a valid username on your domain - Article 23727 at http://support.esri.com/search/KbDocument.asp?dbid=23727

(Windows only) AdminSiteApplet is not found for Manager - Article 20394 at http://support.esri.com/search/KbDocument.asp?dbid=20394

Troubleshooting Web server & servlet engine:

Jakarta Tomcat service fails to start due to internal error - Article 22327 at http://support.esri.com/search/KbDocument.asp?dbid=22327

HowTo: Update ServletExec to use a new version of JRE - Article 20340 at http://support.esri.com/search/KbDocument.asp?dbid=20340

(Windows only) Tomcat service fails to start - Article 18766 at http://support.esri.com/search/KbDocument.asp?dbid=18766

Check out http://support.esri.com/search/KbDocument.asp?dbid=23450 for information on setting up your Web server and servlet engine.

Troubleshooting Application start up after installation:

Unable to login to Administrator in ArcIMS - Article 23057 at http://support.esri.com/search/KbDocument.asp?dbid=23057

Add virtual server failed - Article 22055 at http://support.esri.com/search/KbDocument.asp?dbid=22055

(LINUX only) Map service not available due to fonts missing - Article 22185 at http://support.esri.com/search/KbDocument.asp?dbid=22185

ArcIMS services or Tomcat stop immediately after starting - Article 20915 at http://support.esri.com/search/KbDocument.asp?dbid=20915

Reset ArcIMS so that Administrator prompts for new user information - Article 15442 at http://support.esri.com/search/KbDocument.asp?dbid=15442

HowTo: Create a scripts virtual directory in IIS - Article 23622 at http://support.esri.com/search/KbDocument.asp?dbid=23622

HowTo: View error messages generated by Administrator, Author, and ArcExplorer—Java while developing an ArcIMS site - Article 19439 at http://support.esri.com/search/KbDocument.asp?dbid=19439

HowTo: Enable Complete Logging for the ArcIMS Application Server and Spatial Server - Article 20844 at http://support.esri.com/search/KbDocument.asp?dbid=20844

Unable to add ArcMapImage Service because the ArcMap image server is not showing up - Article 22034 at http://support.esri.com/search/KbDocument.asp?dbid=22034

Unable to create an ArcMap Image Service – Article 22039 at http://support.esri.com/search/KbDocument.asp?dbid=22039

"Requested Map Service not available" error in HTML viewer – Article 21331 at http://support.esri.com/search/KbDocument.asp?dbid=21331

URL is invalid, or ArcIMS is not running in Administrator – Article 23444 at http://support.esri.com/search/KbDocument.asp?dbid=23444

Uninstalling ArcIMS 4.0.1

You must remove the following items to uninstall ArcIMS:

- 1. Remove <ArcIMS Installation Directory>/ArcIMS.
- 2. Remove the following from the appropriate Web server location:
 - com directory
 - Esrimap prop
 - ServletConnector Res.properties
 - ServletConnector_Res_en_US.properties
 - WMSEsrimap_prop

For example:

Apache with Tomcat: <Tomcat Installation Directory>/webapps/ROOT/WEB-INF/classes; esriadmin and metadataexplorer directories from <Tomcat Installation Directory>/webapps, if applicable

- 3. Remove the following files from your \$HOME directory:
 - aimsdefaults.properties
 - aimsproxy.properties, if applicable

Note: If you are using Sun ONE 6.0 (iPlanet) with ArcIMS, before Sun ONE 6.0 (iPlanet) will restart, you must remove all references to ArcIMS from the web-apps.xml file located in: <Sun ONE 6.0 (iPlanet) Installation Directory>/servers/https-<la>localhost>.<domain>.com/config.

Installing ArcIMS Viewer

The ArcIMS Viewer installation allows your end users to view ArcIMS Web sites created using the Java Viewers.

The client is supported on Windows 98, Windows NT, Windows 2000, Windows XP, HP-UX, IBM AIX, Linux Red Hat, SGI IRIX and Sun Solaris; 128 MB of RAM are required for the Java clients.

Note: You must uninstall ArcExplorer—Java Edition on your Windows computer before you install ArcIMS Viewer.

The items installed are:

- Java Plug-in 1.3 or higher (if needed)
- ESRI ArcIMS Viewer
- ArcExplorer—Java 4.0.1

See the section for your platform:

- Installing ArcIMS Viewer on HP-UX
- Installing ArcIMS Viewer on IBM AIX
- Installing ArcIMS Viewer on Linux Red Hat
- Installing ArcIMS Viewer on Microsoft Windows
- Installing ArcIMS Viewer on SGI IRIX
- Installing ArcIMS Viewer on Sun Solaris

Installing ArcIMS Viewer on HP-UX

The ArcIMS Host computer runs the ArcIMS Web site, and the ArcIMS remote computer accesses the Web site from a Web browser via the Intranet or Internet.

An Intranet client has NFS access to the ArcIMS Host, and an Internet client has only HTTP access.

Note: ArcIMS Web sites created using the Java Custom Viewer cannot be viewed from an HP-UX remote computer.

To view ArcIMS Web sites created using the ArcIMS—Java Standard Viewer, the following components must be installed on the remote computer:

- J2SE JRE 1.3 (the Java Plug-in is included with J2SE JRE)
- ArcIMS Viewer

If the remote computer has ArcIMS Manager or ArcExplorer—Java Edition installed, the J2SE JRE and ArcIMS Viewer are already available on it. If not, Internet clients are prompted to install these via the ArcIMS Viewer installation. Intranet clients can copy the necessary components to their computer. See Installing ArcIMS Viewer on a remote HP-UX computer.

There are four steps required to set up a remote ArcIMS Viewer:

- 1. Setting up the ArcIMS Host computer
- 2. Installing JRE 1.3 on a remote computer
- 3. Installing ArcIMS Viewer on a remote HP-UX computer
- 4. Setting up ArcExplorer—Java Edition on a remote computer

The steps have different instructions for Internet and Intranet clients, where appropriate.

Setting up the ArcIMS Host computer on UNIX/Linux

To provide Internet clients with the ability to download the ArcIMS Viewer from an ArcIMS Web site, the ArcIMS Web site Administrator must do the following:

cp -r \$AIMSHOME/ViewerDownLoad/install cp -r \$AIMSHOME/ViewerDownLoad/install path to your ArcIMS website directory>

For information on the ArcIMS website directory specific to the type of Web server you are using, see Configuring your Web server for HP-UX, IBM AIX, Linux Red Hat, SGI IRIX, or Sun Solaris.

If you are using Sun ONE 6.0 (iPlanet) Web server, you must make changes to support the use of ArcIMS Viewer. See the instructions for Configuring your Sun One 6.0 (iPlanet) Web server for ArcIMS Viewer.

Once you have set up the ArcIMS Host computer, the next step is to install JRE 1.3 or higher on a remote HP-UX, IBM AIX, Linux Red Hat, SGI IRIX, or Sun Solaris computer.

Installing JRE 1.3 or higher on a remote HP-UX computer

Internet clients only

When a remote HP-UX computer tries to access an ArcIMS—Java Standard Web site, the application automatically detects whether J2SE JRE and the Plug-in are installed. If not, the browser is redirected to www.hp.com to download J2SE JRE 1.3. If you have already installed J2SE JRE 1.3 but still receive the redirect message, the Plug-in may not be configured properly.

Internet and Intranet clients

- 1. Register and follow the instructions to download and install J2SE JRE.
- 2. ESRI recommends that you increase the Java VM memory parameters. Open the Java Plug-in Control Panel and set the required memory parameters in the field named Java Run Time parameters to
 - -Xms10m -Xmx256m

and click Apply.

The Java Plug-in Control Panel is located at <JRE Installation Directory>/bin/ControlPanel.

- 3. Configure J2SE JRE 1.3:
 - a. Make sure the correct J2SE JRE is being used. Add the following to your .cshrc file: setenv JAVA_HOME <JRE Installation Directory> set path = (\$JAVA_HOME/bin \$path)

For Netscape to use the correct Plug-in, add the following variables to your .cshrc file:

setenv NPX_PLUGIN_PATH <path to Java install>/plugin/PA_RISC/ns4 setenv NPX_JRE_PATH <JRE Installation Directory>

b. Source the .cshrc file:

source .cshrc

Once you have J2SE JRE 1.3 installed, the next step is to install ArcIMS Viewer.

Installing ArcIMS Viewer on a remote HP-UX computer

Internet clients only

- 1. Once you have installed J2SE JRE and configured JPI, close your browser to clear the cache, then reopen it.
- 2. Type the URL to the ArcIMS Web site:

http://<hostname>/website/<name>/default.htm

3. At the ESRI ArcIMS Viewer screen, click Download installer for UNIX.

- 4. The ArcIMS Viewer installer is automatically downloaded to your \$HOME directory. The Viewer installer: AEJava.bin is saved under \$HOME/IA Installers/ESRI ArcIMS Viewer directory. The Viewer installer is automatically executed.
- 5. At the language screen, choose a language and click OK.
- 6. At the Location of JRE screen, choose the location where you installed J2SE JRE 1.3. This should be the same as what your \$NPX JRE PATH variable is set to in Step 4 of Installing JRE 1.3 on a remote HP-UX computer. Click Next.

Note: You must have write access to the lib and bin directories in JRE.

- 7. At the Introduction screen, click Next.
- 8. At the Installation Directory screen, choose the installation directory and click Install. The installer creates a directory called AEJava4.0 at this location.

Note: The Viewer JAR files and libraries are installed directly into the JRE directory that you selected in Step 8. See the install.log file located in AEJava4.0/UninstallerData for a list of where each file is copied.

- 9. At the Install Complete screen, click Done.
- 10. Close the browser to clear the cache, then reopen it.

You are now ready to view ArcIMS Web pages created using the Java Standard Viewer. Proceed to Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer.

Intranet clients only

Check with your ArcIMS system administrator if you do not know what \$AEJHOME should be set to.

1. Copy the Viewer *.jar files to your JRE ext directory:

```
cp $AEJHOME/lib/*.jar $NPX JRE PATH/lib/ext
```

2. Add \$AEJHOME/lib to your LD LIBRARY PATH in your .cshrc file:

```
setenv LD LIBRARY PATH $AEJHOME/lib:$LD LIBRARY PATH
```

You are now ready to view ArcIMS Web pages created using the Java Standard Viewer. Proceed to Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer.

Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer

Intranet and Internet clients

Check with your ArcIMS system administrator if you do not know what \$AEJHOME should be set to.

1. To enable ArcExplorer—Java Edition, set the following variable in your .cshrc file:

```
setenv AEJHOME < ArcExplorer Installation Directory > /aej40exe
```

2. In your .cshrc file, add \$AEJHOME/bin to your \$PATH variable or set an alias to the startup script:

```
set path = ( $path $AEJHOME/bin )
```

or

alias aejava \$AEJHOME/bin/aejava

3. To enable ArcExplorer—Java Edition Help, copy the aimsclient.properties file from <ArcExplorer Installation Directory>/Xenv to your \$HOME directory, open the file in a text editor, and edit the values for:

WebBrowser=<Netscape Installation Directory>/netscape

AEJavaHelp=<ArcExplorer Installation Directory>/aej40exe/Help/aejava help.htm

Save and close the file.

4. Source your .cshrc file:

source .cshrc

5. To start ArcExplorer—Java Edition, type:

aejava

You can now use ArcExplorer—Java Edition to view local data and ArcIMS services.

Note: If your remote IBM AIX computer accesses an ArcIMS Web site created using the Java Standard Viewer on Windows or Solaris, then you will encounter the following warning message: 'You need a font named Arial to view data from this server.' Click OK. This is just a warning message, and it should not affect the functionality of the Java Standard Viewer.

Note: If your remote Windows computer accesses an ArcIMS Web site created using the Java Custom Viewer on SGI IRIX, then you will encounter the following warning message: 'You need a font named Helvetica to view data from this server.' Click OK. This is just a warning message, and it should not affect the functionality of the Java Custom Viewer.

Installing ArcIMS Viewer on IBM AIX

The ArcIMS Host computer runs the ArcIMS Web site, and the ArcIMS remote computer accesses the Web site from a Web browser via the Intranet or Internet.

An Intranet client has NFS access to the ArcIMS Host, and an Internet client has only HTTP access.

Note: ArcIMS Web sites created using the Java Custom Viewer cannot be viewed from an AIX remote computer.

To view ArcIMS Web sites created using the ArcIMS—Java Standard Viewer, the following components must be installed on the remote computer:

- J2SE JRE 1.3 or higher (the Java Plug-in is included with J2SE JRE)
- ArcIMS Viewer

If the remote computer has ArcExplorer—Java Edition installed, the J2SE JRE and ArcIMS Viewer are already available on it. If not, Internet clients are prompted to install these via the ArcIMS Viewer installation. Intranet clients can copy the necessary components to their computer. See Installing ArcIMS Viewer on a remote AIX computer.

There are four steps required to set up a remote ArcIMS Viewer:

- 1. Setting up the ArcIMS Host computer on UNIX/Linux
- 2. Installing JRE 1.3 or higher on a remote IBM AIX computer
- 3. Installing ArcIMS Viewer on a remote IBM AIX computer
- 4. Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer

The steps have different instructions for Internet and Intranet clients, where appropriate.

Setting up the ArcIMS Host computer on UNIX/Linux

To provide Internet clients with the ability to download the ArcIMS Viewer from an ArcIMS Web site, the ArcIMS Web site Administrator must do the following:

cp -r \$AIMSHOME/ViewerDownLoad/install <path to your ArcIMS website directory>

For information on the ArcIMS website directory specific to the type of Web server you are using, see Configuring your Web server for HP-UX, IBM AIX, Linux Red Hat, SGI IRIX, or Sun Solaris.

If you are using Sun ONE 6.0 (iPlanet) Web server, you must make changes to support the use of ArcIMS Viewer. See the instructions for Configuring your Sun One 6.0 (iPlanet) Web server for ArcIMS Viewer.

Once you have set up the ArcIMS Host computer, the next step is to install JRE 1.3 or higher on a remote HP-UX, IBM AIX, Linux Red Hat, SGI IRIX, or Sun Solaris computer.

Installing JRE 1.3 or higher on a remote IBM AIX computer

Internet clients only

When a remote computer tries to access an ArcIMS Java Standard Web site, the application automatically detects whether the J2SE JRE and Plug-in are installed. If it does not detect your J2SE JRE, you need to go to the following IBM Web site to download J2SE JRE 1.3 or higher: http://www.ibm.com/java/jdk.

If you have already installed J2SE JRE 1.3 or higher, but it is not detected, the Plug-in may not be configured properly. Skip to Step 4 below for instructions on configuring J2SE JRE 1.3 or higher and the Plug-in.

Internet and Intranet clients

The URL for the IBM J2SE JRE 1.3 or higher download is http://www.ibm.com/java/jdk.

- 1. Register and follow the instructions to download the J2SE JRE.
- 2. ESRI recommends that you increase the Java VM memory parameters. Open the Java Plug-in Control Panel located at <JRE Installation Directory>/bin/JavaPluginControlPanel. Set the required memory parameters in the field named Java Run Time Parameters:
 - -Xms10m -Xmx256m

Click Apply.

- 3. Make sure that you add \$JAVA HOME/bin to LIBPATH. See System requirements for more information.
- 4. Configure JRE 1.3 or higher:
 - a. Make sure the correct J2SE JRE is being used. Add the following to your .cshrc file: setenv JAVA_HOME <JRE Installation Directory> set path = (\$JAVA_HOME/bin \$path)
 - b. Source the .cshrc: source .cshrc
 - c. For Netscape to use the correct Plug-in, copy the javaplugin.a file from your \$JAVA_HOME/bin directory to your Netscape plugin directory:

cp <JRE Installation Directory>/bin/javaplugin.a <Netscape Installation Directory>/plugins

Once you have J2SE JRE 1.3 or higher installed, the next step is to install ArcIMS Viewer.

Installing ArcIMS Viewer on a remote IBM AIX computer

Internet clients only

- 1. Once you have installed J2SE JRE, close your browser to clear the cache, then reopen it.
- 2. Type the URL to the ArcIMS Web site:

http://<hostname>/website/<name>/default.htm

- 3. At the ESRI ArcIMS Viewer screen, click Start Installer for AIX.
- 4. The ArcIMS Viewer installer is automatically downloaded to your \$HOME directory. The Viewer installer: AEJava.bin is saved under \$HOME/IA_Installers/ESRI_ArcIMS_Viewer directory. The Viewer installer is automatically executed.
- 5. At the language screen, choose a language and click OK.
- 6. At the Location of JRE screen, choose the location where you installed J2SE JRE 1.3 or higher. This should be the same as what your \$JAVA_HOME variable is set to in step 3 of Installing J2SE JRE 1.3 or higher on a remote computer. Click Next.

Note: You must have write access to the lib and bin directories in JRE.

- 7. At the Introduction screen, click Next.
- 8. At the Installation Directory screen, choose the installation directory and click Install. The installer creates a directory called AEJava4.0 at this location.

Note: The Viewer JAR files and libraries are installed directly into the JRE directory that you selected in Step 8. See the install.log file located in AEJava4.0/UninstallerData for a list of where each file is copied.

- 9. At the Install Complete screen, click Done.
- 10. Close the browser to clear the cache, then reopen it.

You are now ready to view ArcIMS Web pages created using the Java Standard Viewer. Proceed to Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer.

Intranet clients only

Check with your ArcIMS system administrator if you do not know what \$AEJHOME should be set to.

- 1. Copy the Viewer *.jar files to your JRE ext directory:
 - cp \$AEJHOME/lib/*.jar <JRE Installation Directory>/lib/ext
- 2. Add \$AEJHOME/lib to your LIBPATH in your .cshrc file:

```
setenv LIBPATH $AEJHOME/lib:$LIBPATH
```

You are now ready to view ArcIMS Web pages created using the Java Standard Viewer. Proceed to Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer.

Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer

Intranet and Internet clients

Check with your ArcIMS system administrator if you do not know what \$AEJHOME should be set to.

- 1. To enable ArcExplorer—Java Edition, set the following variable in your .cshrc file:
 - setenv AEJHOME < ArcExplorer Installation Directory > /aej40exe
- 2. In your cshrc file, add \$AEJHOME/bin to your \$PATH variable or set an alias to the startup script:

```
set path = ( $path $AEJHOME/bin )
```

or

alias aejava \$AEJHOME/bin/aejava

3. To enable ArcExplorer—Java Edition Help, copy the aimsclient.properties file from <a c style="color: red;">ArcExplorer Installation Directory>/Xenv to your \$HOME directory, open the file in a text editor, and edit the values for:

```
WebBrowser=<Netscape Installation Directory>/netscape
AEJavaHelp=<ArcExplorer Installation Directory>/aei40exe/Help/aeiava help.htm
```

Save and close the file.

4. Source your .cshrc file:

source .cshrc

5. To start ArcExplorer—Java Edition, type:

aejava

You can now use ArcExplorer—Java Edition to view local data and ArcIMS services.

Note: If your remote IBM AIX computer accesses an ArcIMS Web site created using the Java Standard Viewer on Windows or Solaris, then you will encounter the following warning message: 'You need a font named Arial to view data from this server.' Click OK. This is just a warning message, and it should not affect the functionality of the Java Standard Viewer.

Note: If your remote Windows computer accesses an ArcIMS Web site created using the Java Custom Viewer on SGI IRIX, then you will encounter the following warning message: 'You need a font named Helvetica to view data from this server.' Click OK. This is just a warning message, and it should not affect the functionality of the Java Custom Viewer.

Installing ArcIMS Viewer on Linux Red Hat

The ArcIMS Host computer runs the ArcIMS Web site, and the ArcIMS remote computer accesses the Web site from a Web browser via the Intranet or Internet.

An Intranet client has NFS access to the ArcIMS Host, and an Internet client has only HTTP access.

Note: ArcIMS Web sites created using the Java Custom Viewer cannot be viewed from a Linux remote computer.

To view ArcIMS Web sites created using the ArcIMS—Java Standard Viewer, the following components must be installed on the remote computer:

- J2SE JRE 1.3 or higher (the Java Plug-in is included with J2SE JRE)
- ArcIMS Viewer

If the remote computer has ArcIMS Manager or ArcExplorer—Java Edition installed, the J2SE JRE and ArcIMS Viewer are already available on it. If not, Internet clients are prompted to install these via the ArcIMS Viewer installation. Intranet clients can copy the necessary components to their computer. See Installing ArcIMS Viewer on a remote Linux computer.

There are four steps required to set up a remote ArcIMS Viewer:

- 1. Setting up the ArcIMS Host computer
- 2. Installing JRE 1.3 or higher on a remote computer
- 3. Installing ArcIMS Viewer on a remote Linux computer
- 4. Setting up ArcExplorer—Java Edition on a remote computer

The steps have different instructions for Internet and Intranet clients, where appropriate.

Setting up the ArcIMS Host computer on UNIX/Linux

To provide Internet clients with the ability to download the ArcIMS Viewer from an ArcIMS Web site, the ArcIMS Web site Administrator must do the following:

cp -r \$AIMSHOME/ViewerDownLoad/install cp -r \$AIMSHOME/ViewerDownLoad/install path to your ArcIMS website directory>

For information on the ArcIMS website directory specific to the type of Web server you are using, see Configuring your Web server for HP-UX, IBM AIX, Linux Red Hat, SGI IRIX, or Sun Solaris.

If you are using Sun ONE 6.0 (iPlanet) Web server, you must make changes to support the use of ArcIMS Viewer. See the instructions for Configuring your Sun One 6.0 (iPlanet) Web server for ArcIMS Viewer.

Once you have set up the ArcIMS Host computer, the next step is to install JRE 1.3 or higher on a remote HP-UX, IBM AIX, Linux Red Hat, SGI IRIX, or Sun Solaris computer.

Installing JRE 1.3 or higher on a remote Linux Red Hat computer

Internet clients only

When a remote Linux computer tries to access an ArcIMS Java Standard Web site, the application automatically detects whether the J2SE JRE and the Plug-in are installed. If not, the browser is redirected to http://java.sun.com/j2se/ to download J2SE JRE 1.3

or higher. If you have already installed J2SE JRE 1.3 or higher but still receive the redirect message, the Plug-in may not be configured properly. Skip to Step 4 below for instructions on configuring J2SE JRE 1.3 and the Plug-in.

Internet and Intranet clients

The URL for the Linux J2SE JRE 1.3 or higher download is http://java.sun.com/j2se/.

- 1. Register and follow the instructions to download and install J2SE JRE.
- 2. ESRI recommends that you increase the Java VM memory parameters. Open the Java Plug-in Control Panel and set the required memory parameters in the field named Java Run Time parameters to
 - -Xms10m -Xmx256m

and click Apply.

The Java Plug-in Control Panel is located at <JRE Installation Directory>/bin/ControlPanel.

- 3. Execute the JRE script for Linux.
- 4. Configure JRE 1.3 or higher:
 - a. Make sure the correct J2SE JRE is being used. Add the following to your .cshrc file:

```
setenv JAVA_HOME < JRE Installation Directory>
set path = ( $JAVA HOME/bin $path)
```

For Netscape to use the correct Plug-in, add the following variables to your .cshrc file:

```
setenv NPX_PLUGIN_PATH < JRE Installation Directory > /plugin/i386/ns4 setenv NPX JRE PATH < JRE Installation Directory >
```

b. Source the .cshrc file:

source .cshrc

Once you have J2SE JRE 1.3 or higher installed, the next step is to install ArcIMS Viewer.

Installing ArcIMS Viewer on a remote Linux Red Hat computer

Internet clients only

- 1. Once you have installed J2SE JRE and configured JPI, close your browser to clear the cache, then reopen it.
- 2. Type the URL to the ArcIMS Web site:

http://<hostname>/website/<name>/default.htm

- 3. At the ESRI ArcIMS Viewer screen, click Start installer for Linux.
- 4. The ArcIMS Viewer installer is automatically downloaded to your \$HOME directory. The Viewer installer: AEJava.bin is saved under \$HOME/IA_Installers/ESRI_ArcIMS_Viewer directory. The Viewer installer is automatically executed.
- 5. At the language screen, choose a language and click OK.
- 6. At the Location of JRE screen, choose the location where you installed J2SE JRE 1.3 or higher. This should be the same as what your \$NPX_JRE_PATH variable is set to in Step 4 of Installing JRE 1.3 or higher on a remote Linux computer. Click Next.

Note: You must have write access to the lib and bin directories in JRE.

- 7. At the Introduction screen, click Next.
- 8. At the Installation Directory screen, choose the installation directory and click Install. The installer creates a directory called AEJava4.0 at this location.

Note: The Viewer JAR files and libraries are installed directly into the JRE directory that you selected in Step 8. See the install.log file located in AEJava/UninstallerData for a list of where each file is copied.

- 9. At the Install Complete screen, click Done.
- 10. Close the browser to clear the cache, then reopen it.

You are now ready to view ArcIMS Web pages created using the Java Standard Viewer. Proceed to Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer.

Intranet clients only

Check with your ArcIMS system administrator if you do not know what \$AEJHOME should be set to.

1. Copy the Viewer *.jar files to your JRE ext directory:

```
cp $AEJHOME/lib/*.jar $NPX_JRE_PATH/lib/ext
```

2. Add \$AEJHOME/lib to your LD LIBRARY PATH in your .cshrc file:

```
setenv LD LIBRARY PATH $AEJHOME/lib:$LD LIBRARY PATH
```

You are now ready to view ArcIMS Web pages created using the Java Standard Viewer. Proceed to Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer.

Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer

Intranet and Internet clients

Check with your ArcIMS system administrator if you do not know what \$AEJHOME should be set to.

1. To enable ArcExplorer—Java Edition, set the following variable in your .cshrc file:

```
setenv AEJHOME < ArcExplorer Installation Directory > /aej40exe
```

2. In your .cshrc file, add \$AEJHOME/bin to your \$PATH variable or set an alias to the startup script:

```
set path = ( $path $AEJHOME/bin )
```

or

alias aejava \$AEJHOME/bin/aejava

3. To enable ArcExplorer—Java Edition Help, copy the aimsclient.properties file from <ArcExplorer Installation Directory>/Xenv to your \$HOME directory, open the file in a text editor, and edit the values for:

```
WebBrowser=<Netscape Installation Directory>/netscape
```

AEJavaHelp=<ArcExplorer Installation Directory>/aej40exe/Help/aejava help.htm

Save and close the file.

4. Source your .cshrc file:

source .cshrc

5. To start ArcExplorer—Java Edition, type:

aejava

You can now use ArcExplorer—Java Edition to view local data and ArcIMS services.

Note: If your remote IBM AIX computer accesses an ArcIMS Web site created using the Java Standard Viewer on Windows or Solaris, then you will encounter the following warning message: 'You need a font named Arial to view data from this server.' Click OK. This is just a warning message, and it should not affect the functionality of the Java Standard Viewer.

Note: If your remote Windows computer accesses an ArcIMS Web site created using the Java Custom Viewer on SGI IRIX, then you will encounter the following warning message: 'You need a font named Helvetica to view data from this server.' Click OK. This is just a warning message, and it should not affect the functionality of the Java Custom Viewer.

Installing ArcIMS Viewer on Microsoft Windows

To install ArcIMS Viewer on Windows 98, Windows NT, Windows 2000, or Windows XP, see the instructions for your Web browser:

- Installing ArcIMS Viewer on Internet Explorer 5.0
- Installing ArcIMS Viewer on Internet Explorer 5.5 and 6.0
- Installing ArcIMS Viewer on Netscape

Installing ArcIMS Viewer on Internet Explorer 5.0 on Microsoft Windows

To install ArcIMS Viewer on Windows 98, Windows NT, Windows 2000, or Windows XP:

1. Type the URL to the ArcIMS Web site:

http://<hostname>/website/<name>

Note: If you do not have the correct Java Plug-in, you will be prompted to install Java 2 Runtime Environment, otherwise skip to step 6.

- 2. At the Security Warning screen for Java Plug-in 1.3.1, click Yes.
- 3. At the Locale selection screen, click Install.
- 4. At the Software License Agreement screen, click Yes.
- 5. At the Choose Destination Location screen, click Next. J2SE JRE 1.3.1 is installed on your computer, and the ArcIMS Viewer installation begins.

Note: You may see steps 6 and 7, otherwise skip to step 8.

- 6. Install on Demand displays if Java Virtual Machine is needed, click Download.
- 7. A Security Warning for Microsoft Virtual Machine displays. Click Yes.
- 8. At the Security Warning screen for InstallAnywhere Web Installer, click Yes.
- 9. Click Start Installer for Windows.
- 10. At the language screen, choose English and click OK.
- 11. At the Welcome screen, click Next.
- 12. At the JRE and Java Plug-in screen, click Next.
- 13. At the Installation Directory screen, click Next.
- 14. At the Location of JRE screen, highlight the correct path and click Install.
- 15. At the Summary screen, click Next.
- 16. At the Install Complete screen, click Done.
- 17. Close your browser to clear the cache, then reopen it.
- 18. Type the URL to the Web site:

http://<hostname>/website/<name>.

Now you can access the ArcIMS Web site.

Note: If you receive the following error message, 'Problem in opening a connection to the installer on the Server. It is possible that the installer cannot be found or has a different name,' tell your ArcIMS system administrator to refer to the instructions for Configuring your Sun ONE 6.0 (iPlanet) Web server for ArcIMS Viewer.

Uninstalling ArcIMS Viewer

To uninstall ArcIMS Viewer:

- 1. Click Start | Settings | Control Panel and double-click Add/Remove Programs on Windows NT, or Change/Remove on Windows 2000; or on Windows XP, click Start | Control Panel and double-click Add or Remove Programs.
- Click ArcGIS ArcIMS Viewer and click Add/Remove on Windows NT or Change/Remove on Windows 2000 or Windows XP.

Installing ArcIMS Viewer on Internet Explorer 5.5 or 6.0 on Microsoft Windows

To install ArcIMS Viewer on Windows 98, Windows NT, Windows 2000, or Windows XP:

1. Type the URL to the ArcIMS Web site:

http://<hostname>/website/<name>

Note: If you do not have the correct Java Plug-in, you will be prompted to install Java 2 Runtime Environment, otherwise skip to step 6.

- 2. At the Security Warning screen for Java Plug-in 1.3.1, click Yes.
- 3. At the Locale selection screen, click Install.
- 4. At the Java 2 Runtime Environment Software License Agreement screen, click Yes.
- 5. At the Choose Destination Location screen, click Next. J2SE JRE 1.3.1 is installed on your computer, and the ArcIMS Viewer installation begins.

Note: You may see steps 6 and 7, otherwise skip to step 8.

- 6. Install on Demand displays if Java Virtual Machine is needed, click Download.
- 7. A Security Warning for Microsoft Virtual Machine displays. Click Yes.
- 8. At the Security Warning screen for InstallAnywhere Web Installer, click Yes.
- 9. Click Start Installer for Windows.
- 10. At the language screen, choose English and click OK.
- 11. At the Welcome screen, click Next.
- 12. At the JRE and Java Plug-in screen, click Next.
- 13. At the Installation Directory screen, click Next.
- 14. At the Location of JRE screen, highlight the correct path and click Install. If you do not highlight the path, the ArcIMS Viewer installation will not be complete.
- 15. At the Summary screen, click Next.
- 16. At the Install Complete screen, click Done.
- 17. Close your browser to clear the cache, then reopen it.
- 18. Type the URL to the Web site:

http://<hostname>/website/<name>.

Now you can access the ArcIMS Web site.

Note: If you receive the following error message, 'Problem in opening a connection to the installer on the Server. It is possible that the installer cannot be found or has a different name,' tell your ArcIMS system administrator to refer to the instructions for Configuring your Sun ONE 6.0 (iPlanet) Web server for ArcIMS Viewer.

Uninstalling ArcIMS Viewer

To uninstall ArcIMS Viewer:

- 1. Click Start | Settings | Control Panel and double-click Add/Remove Programs on Windows NT, or Change/Remove on Windows 2000; or click Start | Control Panel and double-click Add or Remove Programs on Windows XP.
- Click ArcGIS ArcIMS Viewer and click Add/Remove on Windows NT or Change/Remove on Windows 2000 or Windows XP.

Installing ArcIMS Viewer on Netscape 4.75 or 6 on Microsoft Windows

To install ArcIMS Viewer on Windows 98, Windows NT, Windows 2000, or Windows XP:

1. Type the URL to the ArcIMS Web site:

http://<hostname>/website/<name>

Note: If you do not have the correct Java Plug-in, you will be prompted to install Java 2 Runtime Environment, otherwise skip to step 5.

- 2. At the Plug-in not loaded screen, click get the Plug-in.
- 3. After being directed to the Java Web site, you will be prompted to download Java 2 Runtime Environment. Follow the instructions. (If the you are not automatically prompted to download, click the download link for Windows on the Java 2 Runtime Page.)
- 4. Install J2SE JRE.
- 5. Type the URL to the ArcIMS Web site:

http://<hostname>/website/<name>

6. On Netscape 6.0, at the Java Plug-in security warning, select Grant this session.

On Netscape 4.75, at the Java Security screen, select Grant.

- 7. Click Start Installer for Windows.
- 8. At the language screen, choose English and click OK.
- 9. At the Welcome screen, click Next.
- 10. At the JRE and Java Plug-in screen, click Next.
- 11. At the Installation Directory screen, click Next.
- 12. At the Summary screen, click Next.
- 13. At the Location of JRE screen, highlight the correct path and click Install.
- 14. At the Install Complete screen, click Done.
- 15. Close your browser to clear the cache, then reopen it.
- 16. Type the URL to the Web site:

http://<hostname>/website/<name>.

Now you can access the ArcIMS Web site.

Note: If you receive the following error message, 'Problem in opening a connection to the installer on the Server. It is possible that the installer cannot be found or has a different name,' tell your ArcIMS system administrator to refer to the instructions for Configuring your Sun ONE 6.0 (iPlanet) Web server for ArcIMS Viewer.

Uninstalling ArcIMS Viewer

To uninstall ArcIMS Viewer:

- 1. Click Start | Settings | Control Panel and double-click Add/Remove Programs on Windows NT, or Change/Remove on Windows 2000; or click Start | Control Panel and double-click Add or Remove Programs on Windows XP.
- Click ArcGIS ArcIMS Viewer and click Add/Remove on Windows NT or Change/Remove on Windows 2000 or Windows XP.

Installing ArcIMS Viewer on SGI IRIX

The ArcIMS Host computer runs the ArcIMS Web site, and the ArcIMS remote computer accesses the Web site from a Web browser via the Intranet or Internet.

An Intranet client has NFS access to the ArcIMS Host, and an Internet client has only HTTP access.

Note: ArcIMS Web sites created using the Java Custom Viewer cannot be viewed from an IRIX remote computer.

To view ArcIMS Web sites created using the ArcIMS—Java Standard Viewer, the following components must be installed on the remote computer:

- J2SE JRE 1.3.1 (the Java Plug-in is included with J2SE JRE)
- ArcIMS Viewer

If the remote computer has ArcExplorer—Java Edition installed, the J2SE JRE and ArcIMS Viewer are already available on it. If not, Internet clients are prompted to install these via the ArcIMS Viewer installation. Intranet clients can copy the necessary components to their computer. See Installing ArcIMS Viewer on a remote IRIX computer.

There are four steps required to set up a remote ArcIMS Viewer:

- 1. Setting up the ArcIMS Host computer on UNIX/Linux
- 2. Installing the JRE 1.3.1 on a remote SGI IRIX computer
- 3. Installing ArcIMS Viewer on a remote SGI IRIX computer
- 4. Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer

The steps have different instructions for Internet and Intranet clients, where appropriate.

Setting up the ArcIMS Host computer on UNIX/Linux

To provide Internet clients with the ability to download the ArcIMS Viewer from an ArcIMS Web site, the ArcIMS Web site Administrator must do the following:

cp -r \$AIMSHOME/ViewerDownLoad/install <path to your ArcIMS website directory>

For information on the ArcIMS website directory specific to the type of Web server you are using, see Configuring your Web server for HP-UX, IBM AIX, Linux Red Hat, SGI IRIX, or Sun Solaris.

If you are using Sun ONE 6.0 (iPlanet) Web server, you must make changes to support the use of ArcIMS Viewer. See the instructions for Configuring your Sun One 6.0 (iPlanet) Web server for ArcIMS Viewer.

Once you have set up the ArcIMS Host computer, the next step is to install JRE 1.3 or higher on a remote HP-UX, IBM AIX, Linux Red Hat, SGI IRIX, or Sun Solaris computer.

Installing JRE 1.3.1 on a remote SGI IRIX computer

Internet clients only

When a remote computer tries to access an ArcIMS—Java Standard Web site, the application automatically detects whether the Java Runtime Plug-in is installed. If it does not detect your Java Runtime Plug-in, you need to go to www.sgi.com to download Java Runtime Plug-in 1.3.1.

If you have already installed Java Runtime Plug-in 1.3.1, but it is not detected, the Plug-in may not be configured properly. Skip to Step 4 below for instructions on configuring Java Runtime Plug-in 1.3.1.

Internet and Intranet clients

The URL for the SGI Java Runtime Plug-in 1.3.1 download is http://www.sgi.com/developers/devtools/languages/java.html.

- 1. Register and follow the instructions to download the Java Runtime Plug-in.
- 2. ESRI recommends that you increase the Java VM memory parameters. Open the Java Plug-in Control Panel located at <Netscape Installation Directory>/javaplugin/java/ControlPanel.html. Set the required memory parameters in the field named Java Run Time Parameters:
 - -Xms10m -Xmx256m

Click Apply.

- 3. Make sure that you add \$JAVA_HOME/bin to LD_LIBRARY_PATH. See System requirements for more information.
- 4. Configure Java Runtime Plug-in 1.3.1:
 - a. Make sure the correct Java Runtime Plug-in is being used. Add the following to your .cshrc file:

```
setenv JAVA_HOME <JRE Installation Directory> set path = ( $JAVA HOME/bin $path)
```

Source the .cshrc:

source .cshrc

b. If you have installed Netscape or the Plug-in in a nonstandard location, refer to www.sgi.com for more information.

Once you have Java Runtime Plug-in 1.3.1 installed, the next step is to install ArcIMS Viewer.

Installing ArcIMS Viewer on a remote SGI IRIX computer

Internet clients only

- 1. Once you have installed J2SE JRE, close your browser to clear the cache and reopen it.
- 2. Type the URL to the ArcIMS Web site:

http://<hostname>/website/<name>/default.htm

- 3. At the ESRI ArcIMS Viewer screen, click Start Installer for UNIX.
- 4. The ArcIMS Viewer installer is automatically downloaded to your \$HOME directory. The Viewer installer: AEJava.bin is saved under \$HOME/IA_Installers/ESRI_ArcIMS_Viewer directory. The Viewer installer is automatically executed.
- 5. At the language screen, choose a language and click OK.
- 6. At the Location of JRE screen, choose the location where you installed J2SE JRE 1.3.1. This should be the same as what your \$JAVA HOME variable is set to in step 3 of Installing J2SE JRE 1.3.1 on a remote computer. Click Next.

Note: You must have write access to the lib and bin directories in JRE.

7. At the Introduction screen, click Next.

8. At the Installation Directory screen, choose the installation directory and click Install. The installer creates a directory called AEJava4.0 at this location.

Note: The Viewer JAR files and libraries are installed directly into the JRE directory that you selected in Step 8. See the install.log file located in AEJava4.0/UninstallerData for a list of where each file is copied.

- 9. At the Install Complete screen, click Done.
- 10. Close the browser to clear the cache, then reopen it.

You are now ready to view ArcIMS Web pages created using the Java Standard Viewer. Proceed to Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer.

Intranet clients only

Check with your ArcIMS system administrator if you do not know what \$AEJHOME should be set to.

1. Copy the Viewer *.jar files to your JRE ext directory:

```
cp $AEJHOME/lib/*.jar <JRE Installation Directory>/lib/ext
```

2. Add \$AEJHOME/lib to your LD LIBRARY PATH in your .cshrc file:

```
setenv LD_LIBRARY_PATH $AEJHOME/lib:$LD_LIBRARY_PATH
```

You are now ready to view ArcIMS Web pages created using the Java Standard Viewer. Proceed to Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer.

Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer

Intranet and Internet clients

Check with your ArcIMS system administrator if you do not know what \$AEJHOME should be set to.

1. To enable ArcExplorer—Java Edition, set the following variable in your .cshrc file:

```
setenv AEJHOME <ArcExplorer Installation Directory>/aej40exe
```

2. In your .cshrc file, add \$AEJHOME/bin to your \$PATH variable or set an alias to the startup script:

```
set path = ( $path $AEJHOME/bin )
```

or

alias aejava \$AEJHOME/bin/aejava

3. To enable ArcExplorer—Java Edition Help, copy the aimsclient.properties file from <ArcExplorer Installation Directory>/Xenv to your \$HOME directory, open the file in a text editor, and edit the values for:

```
WebBrowser=<Netscape Installation Directory>/netscape AEJavaHelp=<ArcExplorer Installation Directory>/aej40exe/Help/aejava_help.htm
```

Save and close the file.

4. Source your .cshrc file:

source .cshrc

5. To start ArcExplorer—Java Edition, type:

aejava

You can now use ArcExplorer—Java Edition to view local data and ArcIMS services.

Note: If your remote IBM AIX computer accesses an ArcIMS Web site created using the Java Standard Viewer on Windows or Solaris, then you will encounter the following warning message: 'You need a font named Arial to view data from this server.' Click OK. This is just a warning message, and it should not affect the functionality of the Java Standard Viewer.

Note: If your remote Windows computer accesses an ArcIMS Web site created using the Java Custom Viewer on SGI IRIX, then you will encounter the following warning message: 'You need a font named Helvetica to view data from this server.' Click OK. This is just a warning message, and it should not affect the functionality of the Java Custom Viewer.

Installing ArcIMS Viewer on Sun Solaris

The ArcIMS Host computer runs the ArcIMS Web site, and the ArcIMS remote computer accesses the Web site from a Web browser via the Intranet or Internet.

An Intranet client has NFS access to the ArcIMS Host, and an Internet client has only HTTP access.

Note: ArcIMS Web sites created using the Java Custom Viewer cannot be viewed from a Solaris remote computer.

To view ArcIMS Web sites created using the ArcIMS Java Standard Viewer, the following components must be installed on the remote computer:

- J2SE JRE 1.3 or higher (the Java Plug-in is included with J2SE JRE)
- ArcIMS Viewer

If the remote computer has ArcIMS Manager or ArcExplorer—Java Edition installed, the J2SE JRE and ArcIMS Viewer are already available on it. If not, Internet clients are prompted to install these via the ArcIMS Viewer installation. Intranet clients can copy the necessary components to their computer. See Installing ArcIMS Viewer on a remote Solaris computer.

There are four steps required to set up a remote ArcIMS Viewer:

- 1. Setting up the ArcIMS Host computer
- 2. Installing JRE 1.3 on a remote computer
- 3. Installing ArcIMS Viewer on a remote Solaris computer
- 4. Setting up ArcExplorer—Java Edition on a remote computer

The steps have different instructions for Internet and Intranet clients, where appropriate.

Setting up the ArcIMS Host computer on UNIX/Linux

To provide Internet clients with the ability to download the ArcIMS Viewer from an ArcIMS Web site, the ArcIMS Web site Administrator must do the following:

cp -r \$AIMSHOME/ViewerDownLoad/install <path to your ArcIMS website directory>

For information on the ArcIMS website directory specific to the type of Web server you are using, see Configuring your Web server for HP-UX, IBM AIX, Linux Red Hat, SGI IRIX, or Sun Solaris.

If you are using Sun ONE 6.0 (iPlanet) Web server, you must make changes to support the use of ArcIMS Viewer. See the instructions for Configuring your Sun One 6.0 (iPlanet) Web server for ArcIMS Viewer.

Once you have set up the ArcIMS Host computer, the next step is to install JRE 1.3 or higher on a remote HP-UX, IBM AIX, Linux Red Hat, SGI IRIX, or Sun Solaris computer.

Installing JRE 1.3 or higher on a remote Sun Solaris computer

Internet clients only

When a remote Solaris computer tries to access an ArcIMS—Java Standard Web site, the application automatically detects whether the J2SE JRE and the Plug-in are installed. If not, the browser is redirected to http://java.sun.com/j2se/ to download J2SE JRE 1.3. If you have already installed J2SE JRE 1.3 but still receive the redirect message, the Plug-in may not be configured properly. Skip to Step 4 below for instructions on configuring J2SE JRE 1.3 and the Plug-in.

Note: If you use J2SE JRE 1.3.1, you need to install the required Sun OS patches listed on the java.sun.com Web site for Solaris: http://java.sun.com/j2se/1.3/install-solaris-patches.html.

Internet and Intranet clients

The URL for the Sun J2SE JRE 1.3 download is http://java.sun.com/j2se/1.3/jre/.

- 1. Register and follow the instructions to download and install J2SE JRE.
- 2. ESRI recommends that you increase the Java VM memory parameters. Open the Java Plug-in Control Panel and set the required memory parameters in the field named Java Run Time parameters to
 - -Xms10m -Xmx256m

and click Apply.

The Java Plug-in Control Panel is located at <JRE Installation Directory>/bin/ControlPanel.

3. Execute the JRE script for Solaris.

Note: Be sure to check the Solaris patch requirements for the JPI and J2SE JRE prior to installing these components.

- 4. Configure J2SE JRE 1.3:
 - a. Make sure the correct J2SE JRE is being used. Add the following to your .cshrc file:

```
setenv JAVA_HOME < JRE Installation Directory>
set path = ($JAVA_HOME/bin $path)
```

For Netscape to use the correct Plug-in, add the following variables to your .cshrc file:

```
setenv NPX_PLUGIN_PATH <JRE Installation Directory>/plugin/sparc/ns4 setenv NPX_JRE_PATH <JRE Installation Directory>
```

b. Source the .cshrc file:

source .cshrc

Once you have J2SE JRE 1.3 installed, the next step is to install ArcIMS Viewer.

Installing ArcIMS Viewer on a remote Sun Solaris computer

Internet clients only

- 1. Once you have installed J2SE JRE and configured JPI, close your browser to clear the cache, then reopen it.
- 2. Type the URL to the ArcIMS Web site:

http://<hostname>/website/<name>/default.htm

- 3. At the ESRI ArcIMS Viewer screen, click Download installer for UNIX.
- 4. The ArcIMS Viewer installer is automatically downloaded to your \$HOME directory. The Viewer installer: AEJava.bin is saved under \$HOME/IA_Installers/ESRI_ArcIMS_Viewer directory. The Viewer installer is automatically executed.
- 5. At the language screen, choose a language and click OK.
- At the Location of JRE screen, choose the location where you installed J2SE JRE 1.3. This should be the same as what your \$NPX_JRE_PATH variable is set to in Step 4 of Installing JRE 1.3 or higher on a remote Solaris computer. Click Next.

Note: You must have write access to the lib and bin/sparc directories in JRE.

- 7. At the Introduction screen, click Next.
- 8. At the Installation Directory screen, choose the installation directory and click Install. The installer creates a directory called AEJava4.0 at this location.

Note: The Viewer JAR files and libraries are installed directly into the JRE directory that you selected in Step 8. See the install.log file located in AEJava/UninstallerData for a list of where each file is copied.

- 9. At the Install Complete screen, click Done.
- 10. Close the browser to clear the cache, then reopen it.

You are now ready to view ArcIMS Web pages created using the Java Standard Viewer. Proceed to Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer.

Intranet clients only

Check with your ArcIMS system administrator if you do not know what \$AEJHOME should be set to.

1. Copy the Viewer *.jar files to your JRE ext directory:

```
cp $AEJHOME/lib/*.jar $NPX JRE PATH/lib/ext
```

2. Add \$AEJHOME/lib to your LD_LIBRARY_PATH in your .cshrc file:

```
setenv LD_LIBRARY_PATH $AEJHOME/lib:$LD_LIBRARY_PATH
```

You are now ready to view ArcIMS Web pages created using the Java Standard Viewer. Proceed to Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer.

Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer

Intranet and Internet clients

Check with your ArcIMS system administrator if you do not know what \$AEJHOME should be set to.

1. To enable ArcExplorer—Java Edition, set the following variable in your .cshrc file:

```
setenv AEJHOME < ArcExplorer Installation Directory > /aej40exe
```

2. In your .cshrc file, add \$AEJHOME/bin to your \$PATH variable or set an alias to the startup script:

```
set path = ( $path $AEJHOME/bin )
```

or

alias aejava \$AEJHOME/bin/aejava

3. To enable ArcExplorer—Java Edition Help, copy the aimsclient.properties file from <ArcExplorer Installation Directory>/Xenv to your \$HOME directory, open the file in a text editor, and edit the values for:

```
WebBrowser=<Netscape Installation Directory>/netscape AEJavaHelp=<ArcExplorer Installation Directory>/aej40exe/Help/aejava help.htm
```

Save and close the file.

4. Source your .cshrc file:

```
source .cshrc
```

5. To start ArcExplorer—Java Edition, type:

```
aejava
```

You can now use ArcExplorer—Java Edition to view local data and ArcIMS services.

Note: If your remote IBM AIX computer accesses an ArcIMS Web site created using the Java Standard Viewer on Windows or Solaris, then you will encounter the following warning message: 'You need a font named Arial to view data from this server.' Click OK. This is just a warning message, and it should not affect the functionality of the Java Standard Viewer.

Note: If your remote Windows computer accesses an ArcIMS Web site created using the Java Custom Viewer on SGI IRIX, then you will encounter the following warning message: 'You need a font named Helvetica to view data from this server.' Click OK. This is just a warning message, and it should not affect the functionality of the Java Custom Viewer.

Setting up the ArcIMS Host computer on UNIX/Linux

To provide Internet clients with the ability to download the ArcIMS Viewer from an ArcIMS Web site, the ArcIMS Web site Administrator must do the following:

cp -r \$AIMSHOME/ViewerDownLoad/install cp -r \$AIMSHOME/ViewerDownLoad/install path to your ArcIMS website directory>

For information on the ArcIMS website directory specific to the type of Web server you are using, see Configuring your Web server for HP-UX, IBM AIX, Linux Red Hat, SGI IRIX, or Sun Solaris.

If you are using Sun ONE 6.0 (iPlanet) Web server, you must make changes to support the use of ArcIMS Viewer. See the instructions for Configuring your Sun One 6.0 (iPlanet) Web server for ArcIMS Viewer.

Once you have set up the ArcIMS Host computer, the next step is to install JRE 1.3 or higher on a remote HP-UX, IBM AIX, Linux Red Hat, SGI IRIX, or Sun Solaris computer.

Setting up ArcExplorer—Java Edition on a remote UNIX/Linux computer

Intranet and Internet clients

Check with your ArcIMS system administrator if you do not know what \$AEJHOME should be set to.

1. To enable ArcExplorer—Java Edition, set the following variable in your .cshrc file:

```
setenv AEJHOME < ArcExplorer Installation Directory > /aej40exe
```

2. In your .cshrc file, add \$AEJHOME/bin to your \$PATH variable or set an alias to the startup script:

```
set path = ( $path $AEJHOME/bin )
```

or

alias aejava \$AEJHOME/bin/aejava

3. To enable ArcExplorer—Java Edition Help, copy the aimsclient.properties file from <ArcExplorer Installation Directory>/Xenv to your \$HOME directory, open the file in a text editor, and edit the values for:

```
WebBrowser=<Netscape Installation Directory>/netscape AEJavaHelp=<ArcExplorer Installation Directory>/aej40exe/Help/aejava_help.htm
```

Save and close the file.

4. Source your .cshrc file:

source .cshrc

5. To start ArcExplorer—Java Edition, type:

aejava

You can now use ArcExplorer—Java Edition to view local data and ArcIMS services.

Note: If your remote IBM AIX computer accesses an ArcIMS Web site created using the Java Standard Viewer on Windows or Solaris, then you will encounter the following warning message: 'You need a font named Arial to view data from this server.' Click OK. This is just a warning message, and it should not affect the functionality of the Java Standard Viewer.

Note: If your remote Windows computer accesses an ArcIMS Web site created using the Java Custom Viewer on SGI IRIX, then you will encounter the following warning message: 'You need a font named Helvetica to view data from this server.' Click OK. This is just a warning message, and it should not affect the functionality of the Java Custom Viewer.

Configuring Sun ONE 6.0 (iPlanet) for ArcIMS Viewer

The following instructions are for Sun ONE 6.0 (iPlanet) only.

If you use Sun ONE 6.0 (iPlanet), you need to make a change in the configuration of the MIME type property. The MIME type file tells the Web server what to do when an incoming request is looking for a particular file extension.

- 1. Start iPlanet Administration Server from the Start menu or from your Web browser.
- 2. Type your user name and password and click OK.
- 3. Select your Server from the dropdown list and click Manage.
- 4. In the left sidebar, click Mime Types.
- 5. Select the Edit option and click OK. Click OK again.
- 6. On the Global Mime Types list, find Content-Type: application/octet-stream File Suffix: bin
- 7. Click Edit and add ,exe to the File Suffix.
- 8. Click Change MIME Type and OK to update the record.
- 9. Scroll down and find Content-Type: magnus-internal/cgi File Suffix: cgi,exe,bat
- 10. Click Edit and Remove exe, from the File Suffix.
- 11. Click Change MIME Type and OK to update the record.
- 12. Click Apply in the upper right corner.
- 13. Select Apply changes to stop and start the Web server.
- 14. Exit Sun ONE 6.0 (iPlanet).