ArcIMS 3 Frequently asked questions

Contents

Frequently asked questions (FAQs) address issues that commonly occur during installation, using ArcIMS, or working on the Internet. This information can help you to effectively troubleshoot problems you might encounter.

General FAQs

What's the default Username and Password for Manager and Administrator?

The default username is admin and the default password is admin.

Which ArcIMS components require Java™ 2?

Manager and the Java Viewers require Java 2.

The Servlet Connector and Application Server require JRE 1.1.6 or later.

ArcIMS Spatial Server doesn't require Java 2.

What do I do if I'm having problems starting or viewing my MapServices?

You may need to stop and restart ArcIMS. Stopping ArcIMS involves stopping ArcIMS Tasker, ArcIMS Monitor, and ArcIMS Application Server, which are running as services (NT) or daemons (UNIX). If you have ArcIMS Author, ArcIMS Administrator, ArcIMS Designer, or ArcIMS Manager open, exit them.

Stop the services/daemons in the following order:

Stop ArcIMS Tasker, ArcIMS Monitor, then ArcIMS Application Server.

Stop and restart your Web server.

To restart ArcIMS:

Start ArcIMS Application Server, ArcIMS Monitor, then ArcIMS Tasker.

What is a servlet engine?

Servlet engines are a Java platform technology for extending servlets. All servlet engines have a common API. The Servlet Connector (an ArcIMS Application Server Connector) requires a servlet engine if your Web server does not support servlets natively.

Does ArcIMS support multi-byte characters?

No, multi-byte character support will be in a later release. In ArcIMS 3.0, support for single-byte characters is available.

I can ping the ArcIMS middleware, but ArcIMS Manager and Administrator won't work. What is the problem?

Are you using ServletExec Lite as your Servlet Engine? ServletExec Lite is an evaluation version; it is intended strictly for evaluation purposes and does not support Microsoft Internet Information Server (IIS) security. If you need to change the IIS default anonymous login user account ID, you cannot use ServletExec Lite. To resolve the problem, either purchase ServletExec or use another supported Servlet Engine, such as JRun.

I have multiple JREs installed on my machine, which JRE does ArcIMS need to use?

ArcIMS requires JRE 1.2.2-004. On NT, if you have multiple JREs installed on your machine, you can ensure that ArcIMS is using the correct JRE by doing one of the following:

1. During the ArcIMS installation, the panel that installs the JRE allows you to browse to an existing JRE location. If you did this, after you are done installing, open the Java Plug-in Control Panel (Start | Programs | Java Plug-in Control Panel) and click the Advanced tab. In the Use Java Plug-in Default dropdown list, choose the location you browsed to during ArcIMS installation.

2. If you quit the ArcIMS installation due to the JRE install, open a command prompt and type "regedit".

In the Registry Editor, navigate to: HKEY_LOCAL_MACHINE\SOFTWARE\JavaSoft\Java Runtime Environment\1.2.

Change the JavaHome to <drive>:\Program Files\JavaSoft\JRE\1.2.

Once this is done, the ArcIMS installation will not prompt you to install the JRE.

How do I change the port numbers ArcIMS uses on Solaris?

ArcIMS uses predefined ports to communicate between the Application Server and the Servlet Connector and 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 the steps below.

1. Edit the following lines in $AIMSHOME/Middleware/ Servlet_Connector/Esrimap_Prop

   `AppServerMachine=<machine name>`

   `AppServerClientPort-5300 **Change port number`

   Note: If using Netscape Server 3.x, copy this file to: <Netscape Install>/suitespot/http(s)-<web server>/config

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 lines in the monitor script: $AIMSHOME/ Xenv/aimsmonitor

`$JAVA_HOME/bin/java -cp $AIMSHOME/Monitor com.esri.mtier.ImsMonitor`

`$AIMSAPPSERVER 5353 $AIMSHOME/bin DEBUG > $MONITOR_LOGFILE 2>&1 &`

Change 5353 to the RegPort assigned in step 2.

Can I use ArcView IMS or MapObjects IMS services in ArcIMS?

Yes. Refer to Appendix A and B of the *Using ArcIMS* book for details on using ArcView IMS and MapObjects IMS.

Please note that some complex line and polygon fill symbols created in your ArcView View may not appear correctly in the ArcIMS Java Viewer legend (the map will display them correctly). Additional support for symbols in the legend will be included in future releases.

Why do I receive an error message about Esrimap when I try to test an ArcIMS service in ArcView IMS?

Are you using Apache Web Server 1.3.11? This is a known problem with this version of Apache and ArcView IMS.

What are the Java exceptions generated when using the ArcIMS OnLine Help system on Sun Solaris?

These are not critical errors and can be ignored.

What types of joins are supported?

Shapefiles can be joined to DBFs. For ArcSDE layers, joins that are allowed depends on what the underlying RDBMS allows. Joins to ArcSDE for Coverages layers are not allowed.

For the Cold Fusion and ActiveX Connectors, you can only join to a DBF by sending an AXL request directly to ArcIMS; jointables inside the connectors only apply to ArcSDE jointables. The connectors can read the results of a join to a DBF that has been set up in a MapService.

When using the AXL jointables functionality, why does a join work but querying a joined item fails?

When joining to a DBF, the name of the DBF must be 10 characters or less in length.

When joining to an ArcSDE layer, you must specify the full field name; the full field name is defined as <owner.table.field>.

My requests are taking a long time to process, what can I do to mitigate timeout problems?

You can change the values of the Timeout and ExtendedTimeout properties in the AppServer.properties file.

On NT, the AppServer.properties file is located at <ArcIMS Installation Directory>\AppServer; on Solaris, the file can be found at $AIMSHOME/Middleware/Application_Server. See the Application Server Administration section of the *ArcIMS 3.0 Installation Guide*.

I am using ArcIMS on a multiple machine configuration and I cannot view the map on my HTML Viewer, what is the problem?

Is ArcIMS Designer on a different machine than the machine where the ArcIMS Application Server is located? If so, then the global variable in ArcIMSparam.js called formFilePath will point to a location relative to the ArcIMS Designer machine and not the ArcIMS Application Server machine. The formFilePath must be changed to be relative to the ArcIMS Application Server machine. (The formFilePath is the global variable to the site directory path and is used to locate header.htm and footer.htm so that the ArcIMS Servlet Connector can create the response form in PostFrame properly.)

To test if the ArcIMS Servlet Connector is finding the location, in viewer.htm change the following line from:

```
document.writeln('<FRAMESET ROWS="' + (30+addNS)
+ ',*,30,1" FRAMEBORDER="No" FRAMESPACING="0"
onload="doIt()" BORDER=0 ' + moreStuff + '>');
```

to:

```
document.writeln('<FRAMESET ROWS="' + (30+addNS)
+ ',*,30,100" FRAMEBORDER="No" FRAMESPACING="0"
onload="doIt()" BORDER=0 ' + moreStuff + '>');
```

This will make PostFrame larger so you can see the update of this frame. If it stays black it is working properly. If text appears in the frame then the header and footer portions are not being written to the page and the viewer is basically stopped. This is usually resolved by setting the global formFilePath to the path where header.htm and footer.htm are located.

When I am designing a Web site that uses two or more Feature MapServices, why do some layers get visible equal to false even when I set all layers to visible equals true in ArcIMS Designer?

This problem usually occurs when you have the same layer name in different MapServices. ArcIMS Designer assigns visibility to the first layer it finds of a specified name. The easiest way to work around this problem is to use a text editor and open the default.axl file located in the Web site directory. Where you see:

```
<LAYER type="featureclass" name="Cities"
visible="false" id="2">
```

change visible to true:

```
<LAYER type="featureclass" name="Cities"
visible="true" id="2">
```

How can I get details on errors from the ArcIMS Application Server and ArcIMS Spatial Server?

Error messages generated by the ArcIMS Spatial Server or the ArcIMS Application Server can be checked in the log files. The

ArcIMS Spatial Server log files can be found on NT at <ArcIMS Installation>\Server\log and $AIMSHOME/log on Solaris. The ArcIMS Application Server log file is called AppServerStatus.log and can be found on NT at <ArcIMS Installation>\AppServer and $AIMSHOME/Middleware/Application_Server on Solaris.

AXL FAQs

How do I figure out the value of the "character" attribute for the symbol I want to use in the TRUETYPEMARKERSYMBOL tag?

Using the TRUETYPEMARKERSYMBOL tag, the value of the character attribute is the ASCII code of the symbol's keystroke. You can determine the character value using the Unicode Character Map and an ASCII chart.

On NT, open the Unicode Character Map from Start | Programs | Accessories | Character Map.

The Unicode Character Map starts at character 32 (0–31 are non-printable characters). Characters 32–127 are standard ASCII codes; characters 128–255 are not standard. The Unicode Character Map uses ALT+<a number>.

For characters 32–127, use the Unicode Character Map to determine which keystroke is being used for a symbol.

If, for example, you want to use the question mark symbol for the ESRI Transportation & Municipal font, click the symbol on the Unicode Character Map. The keystroke box (at the bottom right of the dialog) will display the keystroke symbol (X in this example). Now refer to an ASCII chart for the value of the symbol.

In this example, the ASCII code is 88 so the value of the character attribute is 88.

For characters 128–255, the number after ALT in the keystroke window is the ASCII code.

Why are there extra tags in addition to DATASET in the default.axl file?

In some cases, more than just the DATASET information is being written to the default.axl file for a feature MapService LAYER. This extra tag information can be deleted from the default.axl file. The tags that can be deleted are

SIMPLELABELRENDERER, VALUEMAPLABELRENDERER, and EXTENSION.

How is rendering used in the default.axl file?

If the default.axl does not have renderers, the layer will use the rendering information in the MapService. If rendering has been added to the default.axl, then the layer will use that information and overwrite what is in the MapService.

However, if label information is added to a layer in default.axl, ArcExplorer 3.0 will only show the labels, the layer's symbolization will not show in the map or legend.

When using the AXL jointables functionality, why does a join work but querying a joined item fails?

When joining to a DBF, the name of the DBF must be 10 characters or less.

When joining to an ArcSDE layer, you must specify the full field name. The full field name is defined as <owner.table.field>.

Can I use UNCs in my AXL file?

Yes. UNC (universal naming convention) pathnames instead of mapped drives can be used in AXL files; UNC is the \\ part of an NT network path name.

Note: You cannot use UNC pathnames in the Open Project dialog box (ArcIMS Author and ArcExplorer 3.0) or the New MapService dialog box (ArcIMS Administrator and ArcIMS Manager).

Data FAQs

What data formats are supported by ArcIMS?

- Shapefiles
- ArcSDE Layers (3.02 or later)
- Coverages using ArcSDE for Coverages (8.02 or later)
- Images

Why can I only add TIF, PNG, GIF, and JPEG using the Add Layers button?

ArcIMS uses Java Advanced Imaging (JAI) to support images on the client side. At this time, only TIF, PNG, GIF, and JPEG are supported; more image formats will be supported in future releases.

Of the images that ArcIMS supports, all are supported through the ArcIMS Spatial Server but only some are supported client side. Client side support is defined as adding an image by clicking the Add Layers button in ArcIMS Author, the ArcIMS Java Viewers, or ArcExplorer 3.0 and using the Catalog dialog box to select an image. The images that are supported client side are TIF, PNG, GIF, and JPEG..

Does my image need a world file?

Yes. For those formats that use world files, the world files must accompany the image when used in ArcIMS.

See the list of supported image types for details on which use world files.

I see an *ImageDirectory entry in the Catalog, what is that?

If ArcIMS finds more than one TIF, PNG, GIF, and JPEG in a folder, the *ImageDirectory entry appears at the top of the Catalog. Clicking this will allow you to add every TIF, PNG, GIF, and JPEG found in the folder.

How do I use an image that is only supported server side?

To use an image that is only supported by the ArcIMS Spatial Server, you must serve out an AXL that references the image and then view the Image MapService using one of the ArcIMS Viewers or ArcExplorer 3.0. (A shortcut to creating this type of AXL may be to take an existing AXL that references an image and simply edit the IMAGEWORKSPACE and LAYER tags to show the path and name to the new image.)

Can I add an AXL that references server side supported images using the Open Project button?

Yes. If you create an AXL with shapefiles and images that are not supported client side, you can open the AXL (using the Open Project button) in ArcIMS Author, the ArcIMS Java Viewers, or ArcExplorer 3.0, but you will not see the image displayed in the map (it will appear in the legend). An AXL referencing an image that has a non-standard extension, such as the CIB image format, cannot be opened in ArcIMS Author, the ArcIMS Java Viewers, or ArcExplorer 3.0.

See *Using ArcIMS* for a complete list of supported image formats.

Why can't I see my transparent GIF?

Displaying a transparent GIF is currently a known limitation with Java Advanced Imaging (JAI); support for transparency for PNG is available.

Are there any limitations with MrSID on Solaris?

1. MrSID on Solaris does not support CMYK imagery.

2. 11 or 16 bit imagery is not supported.

3. Encrypted MrSID files are not recognized.

For more information, go to www.lizardtech.com.

Spatial Server Administration FAQs

How do I get a GIF license?

To obtain a GIF license:

1. See the *GIF Keycode Application Form* in the ArcIMS box, or

2. Contact Unisys Corporation by phone or fax. Unisys Corporation can be contacted at:

Unisys Corporation
Welch Licensing Center Department - C1SW19
Township Line & Union Meeting Roads
P.O. Box 500
Blue Bell, PA 19424
Phone: (215) 986-4411
Fax: (215) 986-3090

or

West Coast Licensing Department in Los Angeles, CA
Phone: (310) 284-9631
Fax: (310) 284-9634

Please state in your communication that you have ArcIMS from ESRI and that you wish to obtain a license for GIF file capabilities in the product.

Mail or fax a copy of the completed execution page of the Unisys agreement and the *GIF Keycode Application Form* to ESRI at

U.S. Customers
ESRI
Attn: Customer Service
380 New York Street
Redlands, CA 92373-8100
Fax: (909) 793-4801

International Customers
Please contact your local ESRI distributor.

ESRI or your local distributor will fax or e-mail you, as indicated on the GIF Keycode Application Form, a keycode that will enable you to unlock GIF file support in ArcIMS. To unlock and use GIF file support in ArcIMS, please refer to the following item.

How do I enable GIF as output for an Image Server?

Once you have obtained a GIF license, this is the procedure to add a GIF license:

1. On NT, go to the Program Files\Esri\ArcIMS3.0\Server\etc folder.

   On Solaris, go to the $AIMSHOME/etc directory.

2. Open the aimsms.cfg file in a text editor.

3. Change the value of the giflicense parameter.:

```
<servercomponent
  type = "ImageServer"
  description = "My Image Server"
  exe = "MapServer\aimsms.dll"
 connectionsharing="1"
access="PUBLIC"
>
<parameters>
<parameter name="giflicense" value="(gif license number)" />
</parameters>
</servercomponent>
```

4. Stop ArcIMS Tasker, ArcIMS Monitor, and ArcIMS Application Server; then restart ArcIMS Application Server, ArcIMS Monitor, and ArcIMS Tasker.

How can I get details on why a MapService fails to start?

You can check the Spatial Server log files for error messages. The log files can be found on NT at <ArcIMS Installation>\Server\log and $AIMSHOME/log on Solaris.

How can I change my Spatial Server to work with a different ArcIMS Application Server after installation?

You can change the ArcIMS Applicaton Server that is being used by editing the ArcIMS Monitor's Startup Parameters.

On NT, open the Services dialog (Start | Settings |

Control Panel | Services) and highlight ArcIMS Monitor. At the bottom of the Service dialog, type the following in the Startup Parameters text box: <AppServer machine> <AppServer registration port> <aimserver.exe directory > <Monitor Listener Port>

Note: The default Monitor Listener Port is 5050.

To make this change on UNIX, go to $AIMSHOME/Xenv/ aimsmonitor; the command line option is:

        java -cp $AIMSHOME/Monitor com.esri.mtier.ImsMonitor <app server machine>5353 $AIMSHOME/bin DEBUG

The <AppServer registration port> is 5353 by default.

Client/Viewer FAQs

Why do I receive an ImageRetrievalException error message when I try to view my Web site in my Web browser?

If you chose a location for the website and output directories other than your Web server root directory, you must create virtual directories for website and output. See the *ArcIMS 3.0 Installation Guide* for instructions on how to do this.

While using Manager and the Java Viewers I am getting Out of Memory errors. How can I avoid this?

You can increase the memory parameters for the Java VM to avoid "Out of Memory" errors.

On NT, go to Start | Programs | Java Plug-in Control Panel, and on the Basic Tab set the required memory parameters in the field named Java Run Time Parameters:

javaw.exe -Xms10m -Xmx256m

Click the Advanced tab, check Enable Just In Time Compiler, and click Apply.

On Solaris, if you have downloaded and installed the Plug-in, then there is also a Java Plug-in Control Panel and you need to do the same thing. The command on Solaris is

java -ms10m -mx256m

Why is my overview map not displaying the MapService I requested on my Java Custom viewer?

It's likely you added a different MapService to your overview map than your main map. The overview map can only display features of a MapService that is in the main map. This limitation is being addressed for future versions.

Why are the labels on my map not displaying?

The symbol tags in your AXL may have an attribute of overlap="false". This means that the symbols CANNOT BE OVERLAPPED by any label. The following tags have the overlap attribute set to "false".

```
<HASHLINESYMBOL color="128,128,128"
linethickness="1" tickthickness="1"
overlap="false" />
```

```
<SIMPLEMARKERSYMBOL overlap="false"
color="0,0,255" width="1" />
```

Edit your AXL to have overlap="true" (or just remove the attribute; it will be set to "true" by default).

Browser FAQs

Are there any limitations with the Netscape browser?

On Solaris, using a Netscape browser, the ArcIMS Java Standard Viewer cannot be resized. Attempts to resize the map will crash the browser.

Why is ArcIMS Manager not available on Solaris?

To run ArcIMS Manager, two features must be supported by the browser:

1. A Java 2 Plug-in

2. Scripting of applets.

Internet Explorer on Solaris does not currently have a supported Java 2 Plug-in. Netscape Communicator does not currently support scripting of applets.

Refer to:

http://java.sun.com/products/plugin/1.2/docs/script.html

for details on Java Plug-in Scripting.

Why is ArcIMS Manager not available on Windows NT using Netscape Communicator?

Netscape Communicator does not currently support scripting of applets - a feature that is critical for ArcIMS Manager to work. Refer to:

http://java.sun.com/products/plugin/1.2/docs/script.html

for details on Java Plug-in Scripting.

Can I use Netscape 4.7+ with the Java Standard Viewer?

Yes, after making a change to the Web site's viewerNS47.htm file; the viewerNS47.htm file is located at <Web site working directory>/<my web site>. You must edit the URL to the axl file in viewerNS47.htm. The lines that appear in bold are the ones that need to be changed to reflect the path and name of your Web site.

```
<object classid="clsid:8AD9C840-044E-11D1-B3E9-
00805F499D93" width="100%" height="100%"
codebase="http://java.sun.com/products/plugin/
1.2/jinstall-12-win32.cab#Version=1,2,0,0"
ID="IMSMap">
<param name="code" value="com/esri/aims/viewer/
IMSMap">
<param name="name" value="IMSMap">
<param name="type" value="application/x-java-
applet;version=1.2">
<param name="AXL" value="http://hostname/
website/sitename/default.axl">
<param name="COMPONENTS" value="toc,toolbar">

<COMMENT>
<embed type="application/x-java-
applet;version=1.2"
width="800"
height="99%"
code="com/esri/aims/viewer/IMSMap" name="IMSMap"
pluginspage="http://java.sun.com/products/plugin/
1.2/plugin-install.html"
AXL="http://hostname/website/sitename/
default.axl"
COMPONENTS="toc,toolbar">
<noembed>
</COMMENT>
No JDK 1.2 support for APPLET!!
</noembed>
</object>
```

Note: Due to a Netscape limitation, if you want to change the width and height parameters, the width figure must be a hard coded number (percentages only work for the height parameter); the applet will not resize the width when the browser is resized.

ArcSDE FAQs

On NT why can't I connect to an ArcSDE Server from ArcIMS Manager, ArcIMS Author, ArcExplorer - Java Edition, or any of the ArcIMS Viewers?

You need to add the following to your environment variable called PATH (or create it if it doesn't already exist):

<drive letter>:\Program Files\Javasoft\Jre\1.2\bin

Note: If you have JRE installed on a different drive than C: please make the appropriate substitution above.

Note: This should be done after you have determined that the ArcSDE Server is accepting connections and that you have permissions to connect to it.

Why can't I view some of my ArcSDE layers?

An ArcSDE layer cannot be displayed until the extent is calculated for the layer. Contact your ArcSDE Administrator about making this change to the ArcSDE layers.

Can I allow each instance of an ImageServer to share a connection to ArcSDE?

Yes. You can set the connectionsharing parameter in the aimsms.cfg file to allow multiple instances of the ImageServer to share one connection to ArcSDE. The aimsms.cfg file can be found at <ArcIMS Installation Directory>\Server\etc on NT and $AIMSHOME/Server/etc on UNIX. By default this parameter is set to 1 and is not listed in the file. If you were to set the parameter to 2 (as seen in the example below), 2 instances of the ImageServer would share one connection to ArcSDE.

```
connectionsharing = "2"
```

After this change is made to the aimsms.cfg file, you must stop and restart ArcIMS for the change to take effect.

Note: Changing the connectionsharing parameter from its default could adversely affect performance.

How does ArcIMS work with constrained layers in an ArcSDE for Coverages database?

With an ArcSDE for Coverages constrained layer, you supply a where clause to restrict the records available in that layer, for example, if you have a World layer and supply "Curr_type lk '*Dollar*'" , you will have a resulting layer of all countries that use Dollar for their currency.

The Find tool (in the ArcIMS Viewers and ArcExplorer 3.0) will not recognize the constrained layer and rather return results from the entire layer.

Does ArcIMS support ArcSDE annotation?

Annotation is not supported in ArcIMS 3.0.

Does ArcIMS support ArcSDE raster data?

Yes. ArcIMS supports ArcSDE 8.02, 8-bit raster data. See the *ArcXML Programmer's Reference* for examples on how to specify paths to ArcSDE raster data in your AXL file.

Customizing FAQs

Can I modify the look and functionality of the ArcIMS Viewers?

Yes. The ArcIMS Viewers are customizable.

The HTML Viewer is written with HTML/DHTML and JavaScript. The functionality is offered as a library of JavaScript functions that you can reuse or extend.

The Java Viewer consists of Java applets scripted together with HTML and JavaScript. The functionality is offered as an Application Programming Interface (API) available from the Java applet, which you can customize through JavaScript.

You can also use the ActiveX and ColdFusion connectors to build custom ArcIMS Viewers.

For more information on customizing the HTML and Java Viewers, as well as the ActiveX and ColdFusion connectors, see *Customizing ArcIMS*.

Are there limitations when setting or reading a label renderer through the Java Viewer API?

The Java Viewer API does not currently allow you to set any of the label renderers inside a group renderer; no errors are thrown but labels will not appear.

How can I change the choices on the right-click menu of the Java Custom Viewer's legend?

When the Java Custom Viewer is created by ArcIMS Designer, two choices are on the legend's right-click menu, Zoom to Active Layer and Use In Overview Map. You can disable these choices or enable other choices by editing the Web site's default.js file. Open the Web site's default.js in a text editor and uncomment the following line in the function init

```
setupTOCPopupMenuItems();
```

Then you can uncomment the disable or enable lines in the setupTOCPopupMenuItems function.