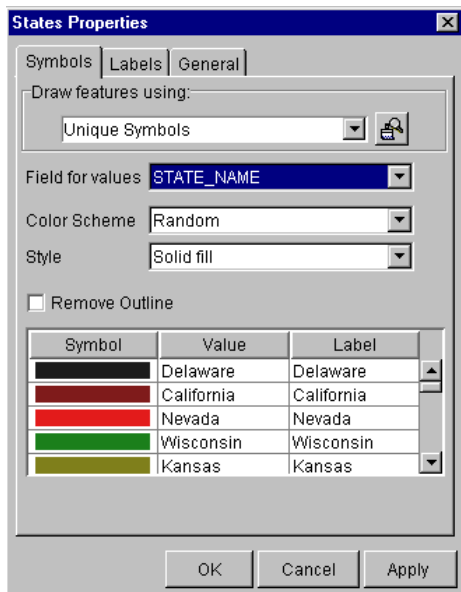


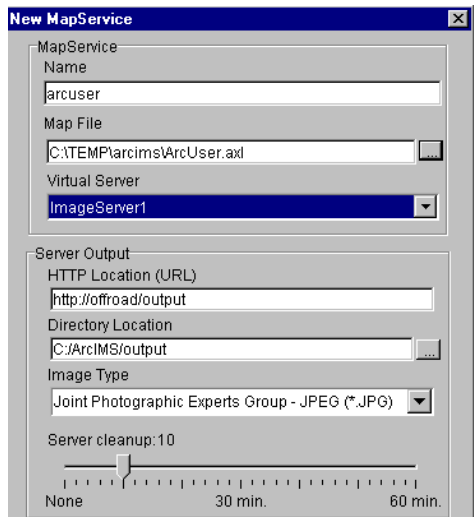
Create an ArcIMS Web Site: Basic Construction and Simple Modification

by Kieren Taig

This exercise complements the article “Create GIS-Enabled Web Sites Using ArcIMS,” from the October–December 2000 issue of *ArcUser* magazine. It provides step-by-step instructions for creating a Web site in ArcIMS and then customizing it to add support for projections. This exercise was created and tested on ArcIMS 3 for the Windows NT platform and uses the sample data for the States, Rivers, and Cities shapefiles that accompany this tutorial. With the knowledge you gain in this exercise, you should be able to extend the functionality of your existing sites.



Select the States layer and set its Layer Properties using Unique Symbols based on the State_Name field.



In the New MapService dialog box, under MapService name, enter arcuser; browse to the location of the Map Configuration file (ArcUser.axl) and choose ImageServer1 as the Virtual Server. Accept the rest of the defaults and choose OK to close the dialog box.

Step 1: Author a Map Configuration File

In this step, you will use the Author application to create a Map Configuration file consisting of three layers—States, Rivers, and Cities. With Author, you group layers to create a map and determine the rendering for each layer.

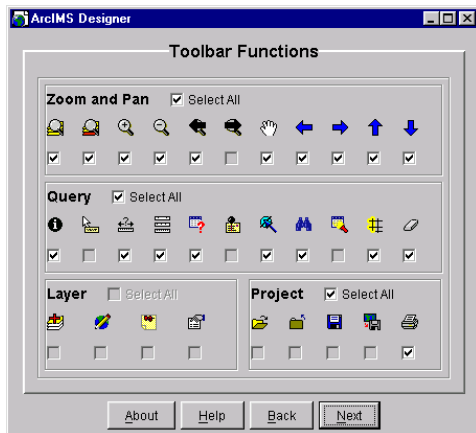
1. Start ArcIMS Author. Choose Layers > Add Layers.
2. In Catalog, click on the local directory to browse to the location where you extracted the sample data for this exercise (the States, Cities, and Rivers shapefiles).
3. In Catalog, verify that File Types is set to shapefiles. Select Cities shapefiles from the right side of Catalog, hold down the Shift key, and click on the Rivers and States shapefiles.
4. In Catalog, click on the Add Layers button to add the shapefiles just selected. These shapefiles will appear as layers in the legend in the Author main interface. Close Catalog.
5. Back in the main Author interface, turn on each layer in the Legend list by checking the box next to it.
6. Verify that the order of the layers from top to bottom is Cities, Rivers, and States. If necessary, reorder layers by dragging and dropping them.
7. Click on the text next to Cities in the legend to make that layer active.
8. Choose Layer > Layer Properties or right-click on the Cities layer and choose Properties from the context menu. In the Cities Properties dialog box, choose Single Symbol and make the marker a size 3 black circle. Click Apply and OK.
9. Select the Rivers layer and set its Layer Properties so that rivers will be rendered in thin blue lines.
10. Select the States layer and set its Layer Properties using Unique Symbols based on the State_Name field.
11. Choose File > Save Project. Save the Map Configuration file as ArcUser.axl in C:\ArcIMS\AXL.
12. Exit Author.

Step 2: Start an Image MapService

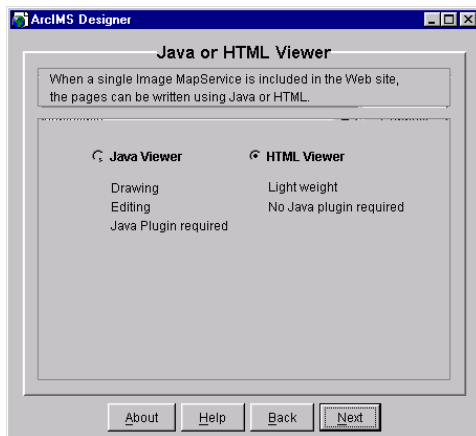
This step creates an Image MapService for the Map Configuration file created in Step 1. A MapService enables a Map Configuration file to be viewable on the Web. An Image MapService is necessary in order to create an HTML Viewer Web site.

1. Start ArcIMS Administrator. In the login dialog box, enter the correct user name and password (or the default login admin/admin).
2. On the left panel, click MapServices. Choose MapService > New MapService.
3. In the New MapService dialog box, under MapService name, enter arcuser.
4. Still in the same dialog box, browse to the location of the Map Configuration file (ArcUser.axl) created in Step 1.
5. For Virtual Server choose ImageServer1. Accept the rest of the defaults and choose OK to close the dialog box. A new MapService called arcuser appears in the right panel of the Administrator.

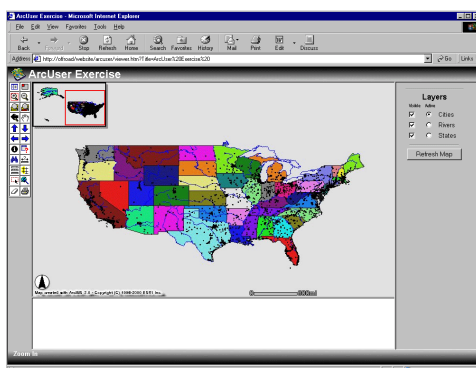
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All the map tools are turned on by default.



Choose the choose HTML Viewer when working through the wizard panels in Designer.



The Web site should load and display the states, rivers, and cities of the United States that were specified in Author.

6. With the arcuser MapService highlighted, choose MapService > Start to start the arcuser MapService. Minimize ArcIMS Administrator instead of closing it because you will use it again.

Step 3: Design a Web Site

Next, you will use the Designer application to create an HTML Viewer Web site for the Image MapService created in Step 2. The HTML Viewer is a template Web site that is fully customizable through the combined uses of HTML, JavaScript, and ArcXML.

1. Start ArcIMS Designer. In the Create a Web Site panel, type “arcuser” in the text box “Type a name for the Web site directory” and type “ArcUser Exercise” in the “Type a Title for the Web Page and Browser Window.” Click Next.
2. In the MapService panel in the left side, scroll down to ImageServer1 and select arcuser. Click the right arrow button to add arcuser to the MapServices list. Click Next.
3. On the Java or HTML Viewer panel, choose HTML Viewer. Click Next.
4. Accept the remainder of the defaults. Click on the Create Web site button.
5. After creating the Web site, exit Designer.
6. Start a browser and in the address URL box enter

http://your_machine_name/website/arcuser

The Web site should load and display the states, rivers, and cities of the United States that were specified in Author.

Step 4: Customize the Map Configuration File

In this step, you will customize the Map Configuration file you created in Step 1 to add support for projections. Because this functionality is not available in ArcIMS

Author, you must add ArcXML tags manually to the Map Configuration file.

1. Open the Map Configuration file, ArcUser.xml, in a text editor such as Microsoft WordPad.
2. Locate the section of the map configuration file between the tags <PROPERTIES> and </PROPERTIES>. Within this section of code, the <FEATURECOORDSYS> and <FILTERCOORDSYS> tags will be added to support projections. These two tags represent the output projection for the MapService and the requested projection from the client, respectively. The <FILTERCOORDSYS> tag could also be sent from the client in a <REQUEST> tag to override the projection value set in the PROPERTIES section.

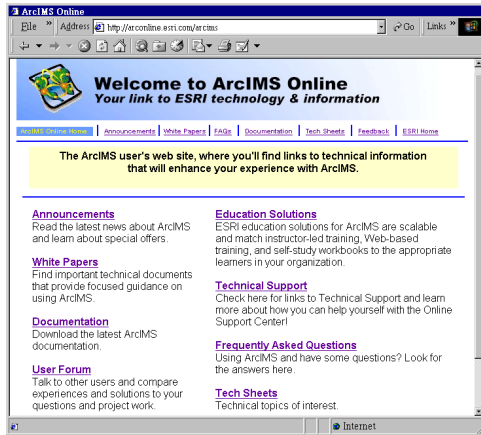
3. Add the tags shown in bold to the PROPERTIES section. The ID 53030 specifies Spherical Robinson projection.

```
<PROPERTIES>
  <ENVELOPE minx="-111.915643" miny="34.926136"
    maxx="-98.872971" maxy="44.5121"
    name="Initial_Extent" />
  <MAPUNITS units="METERS" />
  <FEATURECOORDSYS id="53030" />
  <FILTERCOORDSYS id="53030" />
</PROPERTIES>
```

4. Add the COORDSYS tag here below the DATASET tag for each of the three layers: States, Rivers, and Cities.

```
<LAYER type="featureclass" name="States"
```

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Visit arconline.esri.com for FAQs, announcements, white papers, and technical support for ArcIMS.

```
visible="true" id="0">
  <DATASET name="States" type="polygon"
workspace="shp_ws-0" />
  <COORDSYS id="53030" />
```

5. The shapefiles included with this exercise all have associated PRJ files that provide all the information needed to associate an input projection to each layer. If a shapefile does not have a PRJ file, the COORDSYS tag must be used in each LAYER section to provide the projection information. The usage for the <COORDSYS> tag is identical to FEATURECOORDSYS.
6. Restore ArcIMS Administrator and highlight the MapService named arcuser.
7. Choose MapService > Refresh MapService or click the Refresh MapService button in the toolbar.
8. Start your browser and type in the URL `http://<your_machine_name>/website/arcuser`. The map should now be drawn in the browser in the correct projection.

If all the code was entered correctly in the Map Configuration file, the map of the United States will appear in the chosen projection, Spherical Robinson. If you are having problems, check for these common errors.

- Are your MapServices started? Check Administrator to verify the arcuser MapService is running.
- Have you changed all references to the machine name to the name of your machine?
- A COORDSYS tag is required for each map layer and should be placed under the DATASET tag.