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New Orleans District

EGIS Gateway Server and Client Configuration Guide

EGIS001
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1. Overview

The EGIS Gateway Server is Java Web Application that serves ArcGIS Map documents and layers files through the RSS protocol. Any user with ArcGIS and the EGIS Gateway client install can access the RSS feeds from the EGIS Gateway Server. For more information on how to use the client, refer to the EGIS Gateway client user guide: (http://www.intra.mvn.usace.army.mil:8888/eng/edsd/software/docs/EGIS_Gateway_User_Guide.pdf)

2. Requirements

The EGIS Gateway requires a Java Servlet Container. The software has been developed and tested using Apache Tomcat 6.0.16, which implements the minimum required Servlet 2.5 specification. The application should work on any version of Tomcat including and after 6.0.16. The application may also work on earlier versions and other servlet containers, but only Tomcat 6.0.16 on Windows Server 2003 has been tested. Tomcat requires a Java runtime environment.

3. Installation

Determine where to store application data. Create an application directory, a log, directory, and a temp directory. For example:

```
C:\>mkdir C:\appdata\JSPWiki\content
C:\>mkdir C:\appdata\JSPWiki\logs
C:\>mkdir C:\appdata\JSPWiki\temp
```

Next, copy the Java web archive (war) file to the webapps subdirectory of the Tomcat installation.

Open a web browser and navigate to the webapp URL. For example, if you are running Tomcat on your local machine on the default port 8080, you would navigate to http://localhost:8080/JSPWiki/ .Click on link the says "Continue to installer".

You'll see a form that requests additional information. Fill out the following fields:

   Base URL : Copy the Web Application URL (For example: http://localhost:8080/JSPWiki/)

   Page Storage : Path to the content directory (For example: C:\appdata\JSPWiki\content)

Log files : Path to your log file. (For example:
`C:\appdata\JSPWiki\logs\jspwiki.log`)

Work directory : Path to the temporary directory (For example:
`C:\appdata\JSPWiki\temp`)

Click "Configure!" button. The application will initialize itself. Once you make note of the administrator password, restart the container (or restart Tomcat).

4. Adding Announcements

To add announcements to the EGIS Gateway, navigate to the Announcements Page (For example: http://localhost:8080/JSPWiki/Wiki.jsp?page=Announcements). Click on the link labeled "Create a new Entry". Type the title and message you wish to send out to your user community into the edit box and click the "Save" button. Since the server is wiki-based, make sure to prefix your title with an exclamation point. The announcement will appear on the announcements web page and in the EGIS Gateway clients.

5. Adding Layers and Maps

To publish layers, you'll need a layer file (.lyr) and a FGDC XML metadata file. The metadata file must have the exact same name as the layer file with an additional .xml extension. For example, the metadata file for "Base Data (USACE).lyr" must be named "Base Data (USACE).lyr.xml". The metadata file must contain a thumbnail image and should contain keywords. Including keywords allows EGIS Gateway client users to search for layers by keyword. If the keywords are associated to thesauruses, then the EGIS Gateway Server can be configures to use the keywords to place the layer in one of several taxonomies defined on the server. Users can use taxonomies to browse through layers and focus on related layers of interest. For maps, you'll need the map document (.mxd) and the associated FGDC metadata file (.lyr.xml). The rules that apply to layers also follow for map documents.

Once a layer is prepared, it can be added to the Gateway. Navigate to the 'Layers' page (For example: http://localhost:8080/JSPWiki/Wiki.jsp?page=Layers) and click on the "Attach" tab as shown in Figure 1. Click the "Browse" button and select the layer file you wish to publish. The file name will appear in the text entry next to the "Select file:" label. Click the "Upload" button to attach the file. Repeat the process and attach the FGDC metadata XML file. The layers should appear in the RSS feed, which is refreshed every 31 minutes. The feed is named "layers_rss.rdf" and can be found on the root of the web application (For example: http://localhost:8080/JSPWiki/layers_rss.rdf) If you want to immediately confirm the addition of your layer, restart the container or restart Tomcat. Maps can be added in the same manner using the Maps page (For example: http://localhost:8080/JSPWiki/Wiki.jsp?page=Maps)
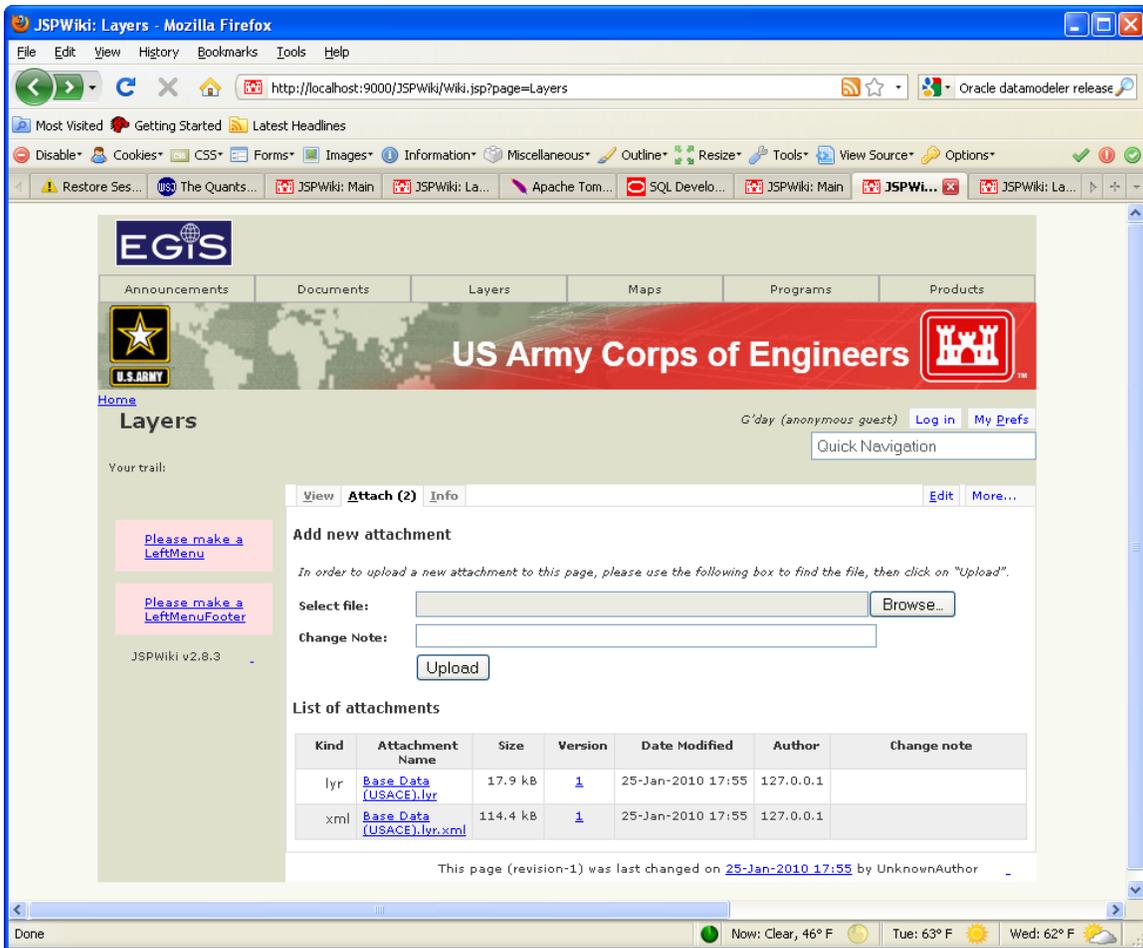
Figure 1 Layers can be added by attaching lyr and xml files to the Layers page.

6. Taxonomy Configuration

EGIS Gateway Server uses a configuration file to associate GIS layers to taxonomies in the ArcMap EGIS Gateway Extension. The file can be located at the following path: <Tomcat_Home >\webapps\JSPWiki\WEB-INF\classes\Evangeline.properties . Each line contains a mapping between a keyword thesaurus, keyword and taxonomy path in the following format:

<thesaurus>.<keyword>=<taxonomy>

Thesaurus and keyword are values in the FGDC metadata. A keyword is only associated to a taxonomy if the keyword is associated to the thesaurus. The taxonomy is forward-slash delimited list where each word represents a progressively deeper layer of the hierarchy. For example, the following entry:

evangeline.cost=/CEMVN/Engineering/Cost

places any layers with the "cost" keyword associated to the "evangeline" thesaurus in the hierarchy under the "Cost" node shown in Figure 2. The "Cost" node has a parent "Engineering" node, which in turn has a "CEMVN" node that appears as a top level tab.
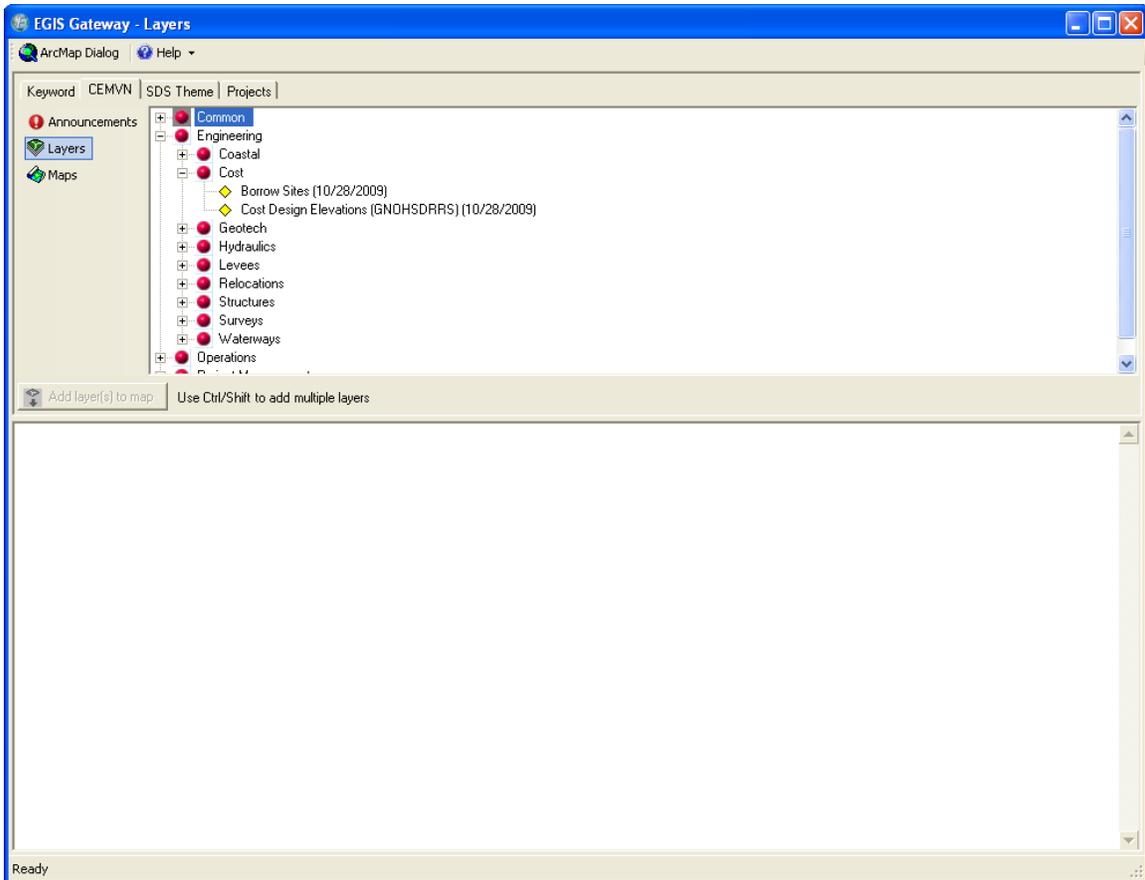
Figure 2 Sample taxonomy for the "cost" keyword.

By default, the Evangeline properties file includes the taxonomy used by the New Orleans district, which consists of project, office, and spatial data standards (SDSFIE) feature dataset themes taxonomies. Keywords and taxonomies for map documents are not currently supported in the EGIS Gateway Client.

7. Client Configuration

The EGIS Gateway Clients installer points the end user to the New Orleans District's server. To change or add additional EGIS Gateway servers, you'll need to write and run a post install registry script on your end users' computers to point your users to the correct location. For this effort, you may need to enlist the help of your Information Technology Office, if you do not have sufficient privileges on your users' machines.

EGIS Gateway server generates RSS feeds for announcements, layers, and maps. These feeds are named "announcements_rss.rdf", "layers_rss.rdf", and "maps_rss.rdf", respectively and are stored on the root of the EGIS Gateway Server web application. The URLs for these three feeds are located in registry keys. You'll need to set/add a registry key for each server you add to your user configuration with a representative name of the server. Under this registry key, values named ANNOUNCEMENTS_URL, LAYERS_URL, and MAPS_URL must be added with URLs to the respective feeds from the given server. Finally, you must register the user's default server under the "DEFAULT_SERVER" key.

The example registry scripts below sets up two servers, "CEMVN" and "CEMVK" and points the end user to the "CEMVK" server by default.

```
Windows Registry Editor Version 5.00

[HKEY_LOCAL_MACHINE\SOFTWARE\CEMVN\EGIS Gateway\RSS]
"DEFAULT_SERVER"="CEMVK"

[HKEY_LOCAL_MACHINE\SOFTWARE\CEMVN\EGIS
Gateway\RSS\CEMVN]
"ANNOUNCEMENTS_URL"="http://testserver.mvn.ds.usace.ar
my.mil:8080/JSPWiki/announcements_rss.rdf"
"LAYERS_URL"="http://testserver.mvn.ds.usace.army.mil:
8080/JSPWiki/layers_rss.rdf"
"MAPS_URL"="http://testserver.mvn.ds.usace.army.mil:80
80/JSPWiki/maps_rss.rdf"

[HKEY_LOCAL_MACHINE\SOFTWARE\CEMVN\EGIS
Gateway\RSS\CEMVK]
"ANNOUNCEMENTS_URL"="http://testserver.mvk.ds.usace.ar
my.mil:8080/JSPWiki/announcements_rss.rdf"
"LAYERS_URL"="http://testserver.mvk.ds.usace.army.mil:
8080/JSPWiki/layers_rss.rdf"
"MAPS_URL"=http://testserver.mvk.ds.usace.army.mil:808
0/JSPWiki/maps_rss.rdf
```

As a note, registry scripts must be saved with Unicode "encoding". ANSI encoding will not work in most cases.

8. Wiki Configuration

After installing the server and configuring the clients, you should have not only a working instance of EGIS Gateway, but also a Wiki-based content management system. You may want to add users, security and customize it to fit your organization's needs.

Since the EGIS Gateway server is the JSP Wiki web application with minor modifications, all documentation that applies for JSP Wiki applies for the EGIS Gateway Server. The only requirement is to maintain the Maps, Layers and Announcement Pages in the Wiki and the EvangelinePlugin and WeblogEntryPlugin tags on those pages.

 For more information on setting up security policies and users, visit the following link: http://doc.jspwiki.org/2.4/wiki/Wiki.Admin.Security

For more information on editing content in a Wiki:
http://www.jspwiki.org/wiki/TextFormattingRules