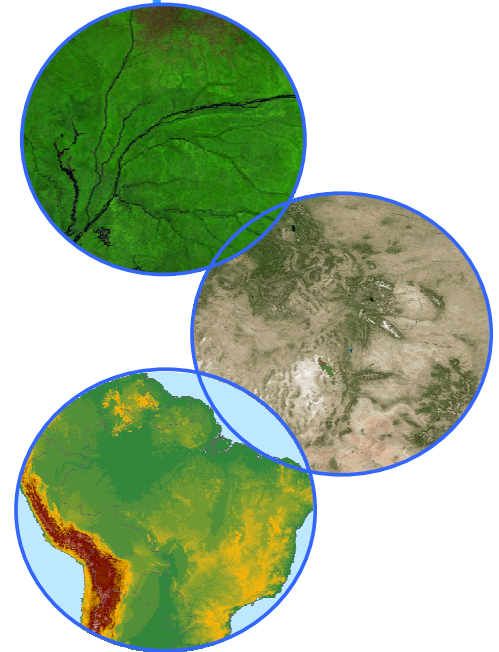


Accessing ORNL DAAC OGC services

Overview:

Accessing ORNL DAAC Open Geospatial Consortium (OGC) services using popular GIS software packages such as ArcMap, Udig, GRASS.



ORNL DAAC:

<http://daac.ornl.gov>

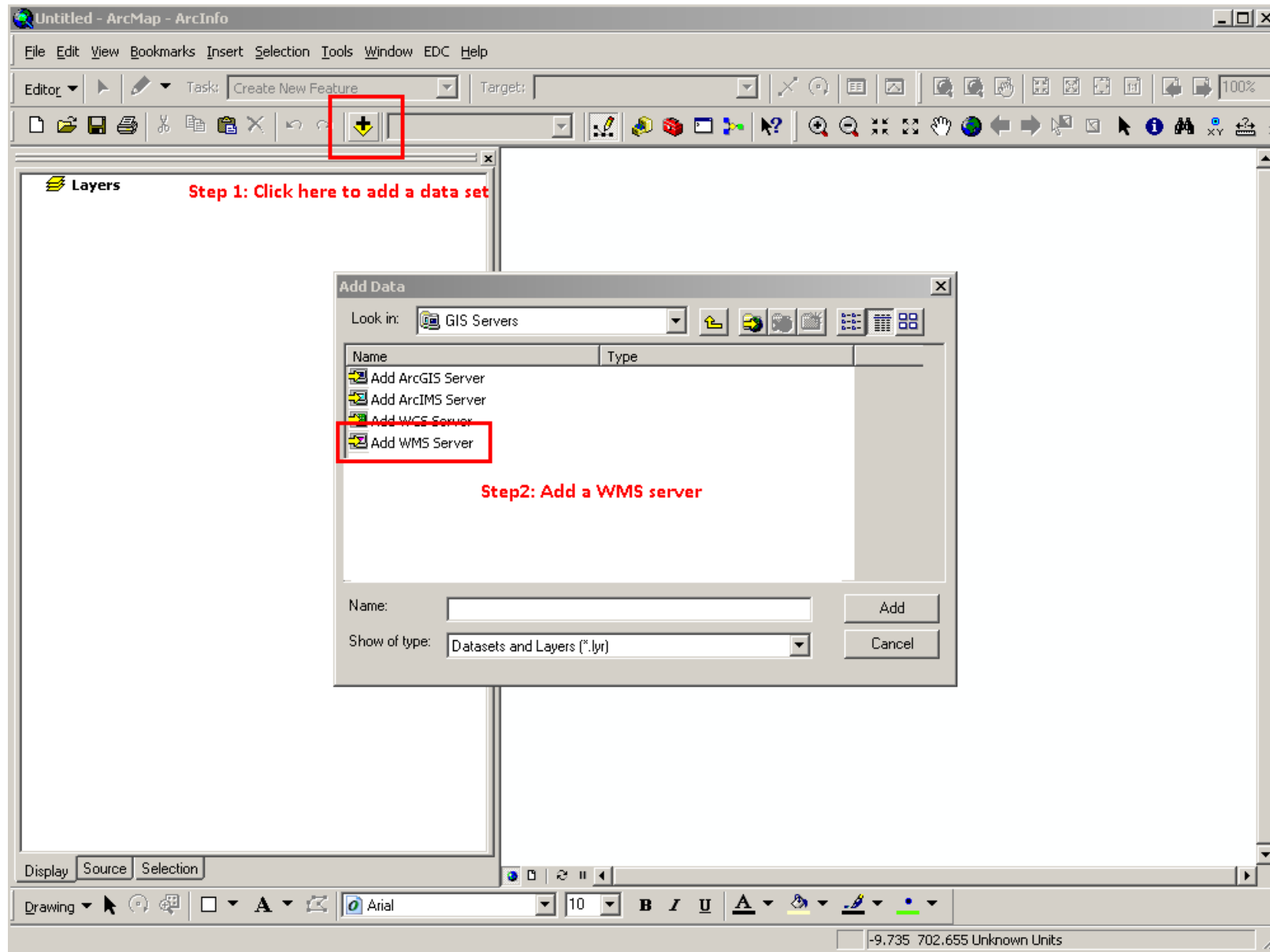
uso@daac.ornl.gov

ORNL DAAC

Accessing ORNL DAAC OGC services using:

- ESRI ArcGIS
 - <http://www.esri.com/>
- uDig (Open Source)
 - <http://udig.refractorions.net/>
- NASA World Wind (Open Source)
 - <http://worldwind.arc.nasa.gov/java/>
- Quantum GIS (Open Source)
 - <http://www.qgis.org/>

Accessing ORNL DAAC Web Map service (WMS) in ESRI ArcGIS : Step 1/3



Accessing ORNL DAAC Web Map service (WMS) in ESRI ArcGIS : Step 2/3

ORNL DAAC WMS GetCapabilities URL :

<http://webmap.ornl.gov/ogcbroker/wms?service=WMS&version=1.1.1&request=GetCapabilities>

Add WMS Server

URL:

Examples: <http://www.myserver.com/arcgis/services/mymap/MapServer/WMServer?>
<http://www.example.com/servlet/com.esri.wms.Esrimap?ServiceName=Name&>

Version:

Server Layers

Click the Get Layers button

- ORNL DAAC WMS Server**
 - ORNL DAAC WMS Server
 - World map of the Koppen-Geiger cli
 - Woody Savannas (Percentage 0-10)
 - Wood Carbon
 - Wood Carbon
 - Wood Carbon
 - Wood Carbon
 - Wood Carbon
 - Wood Carbon
 - Wood Carbon
 - Wood Carbon
 - Wood Carbon
 - Wind Month:12 (1961-1990)
 - Wind Month:11 (1961-1990)
 - Wind Month:10 (1961-1990)
 - Wind Month:09 (1961-1990)
 - Wind Month:08 (1961-1990)
 - Wind Month:07 (1961-1990)

Select the data layer to display

Name: OGC:WMS
Version: 1.1.1
Abstract:

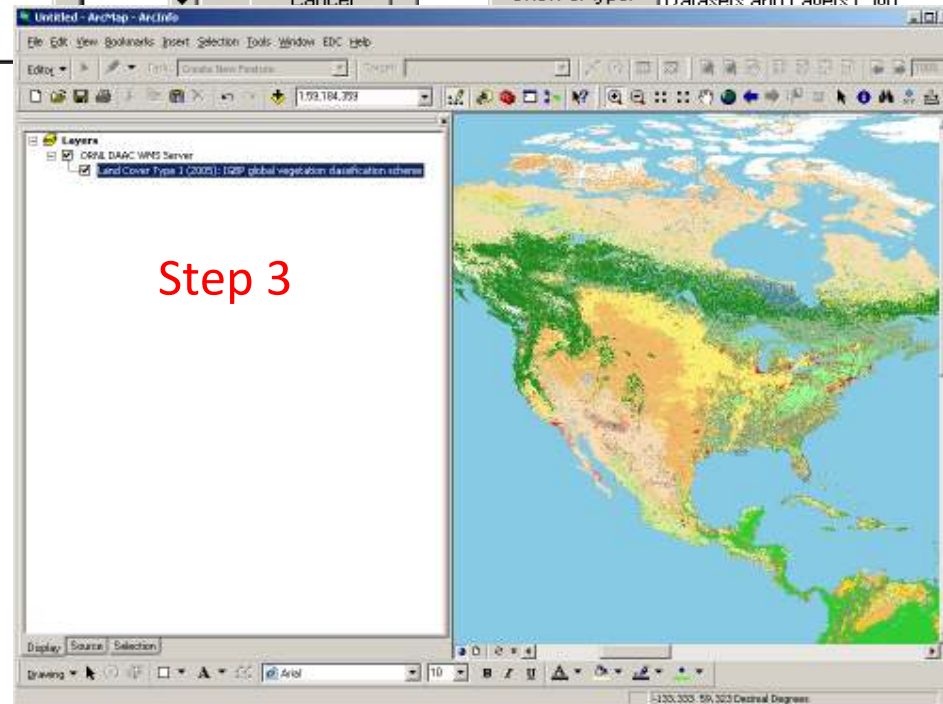
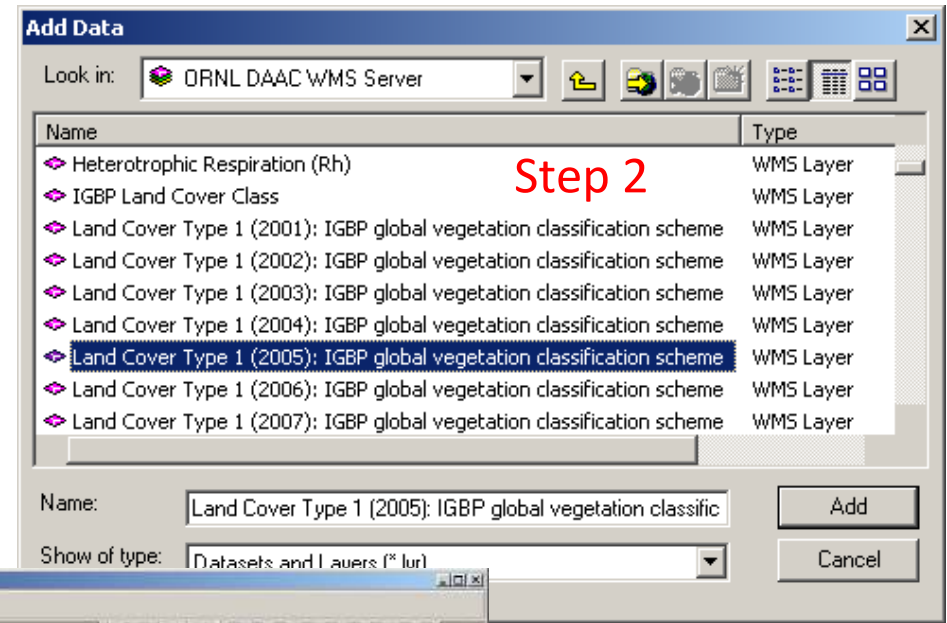
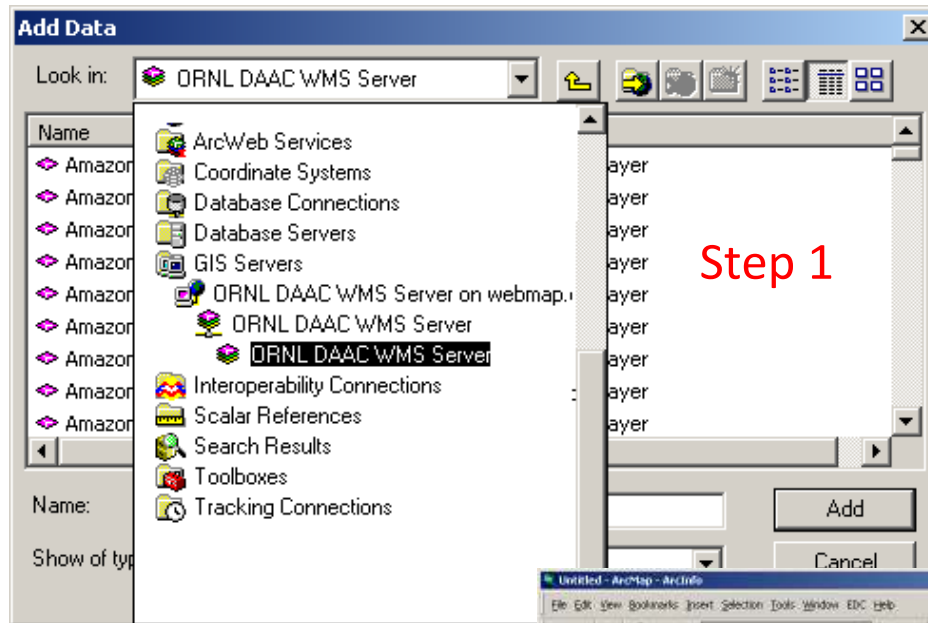
Account (Optional)

User:

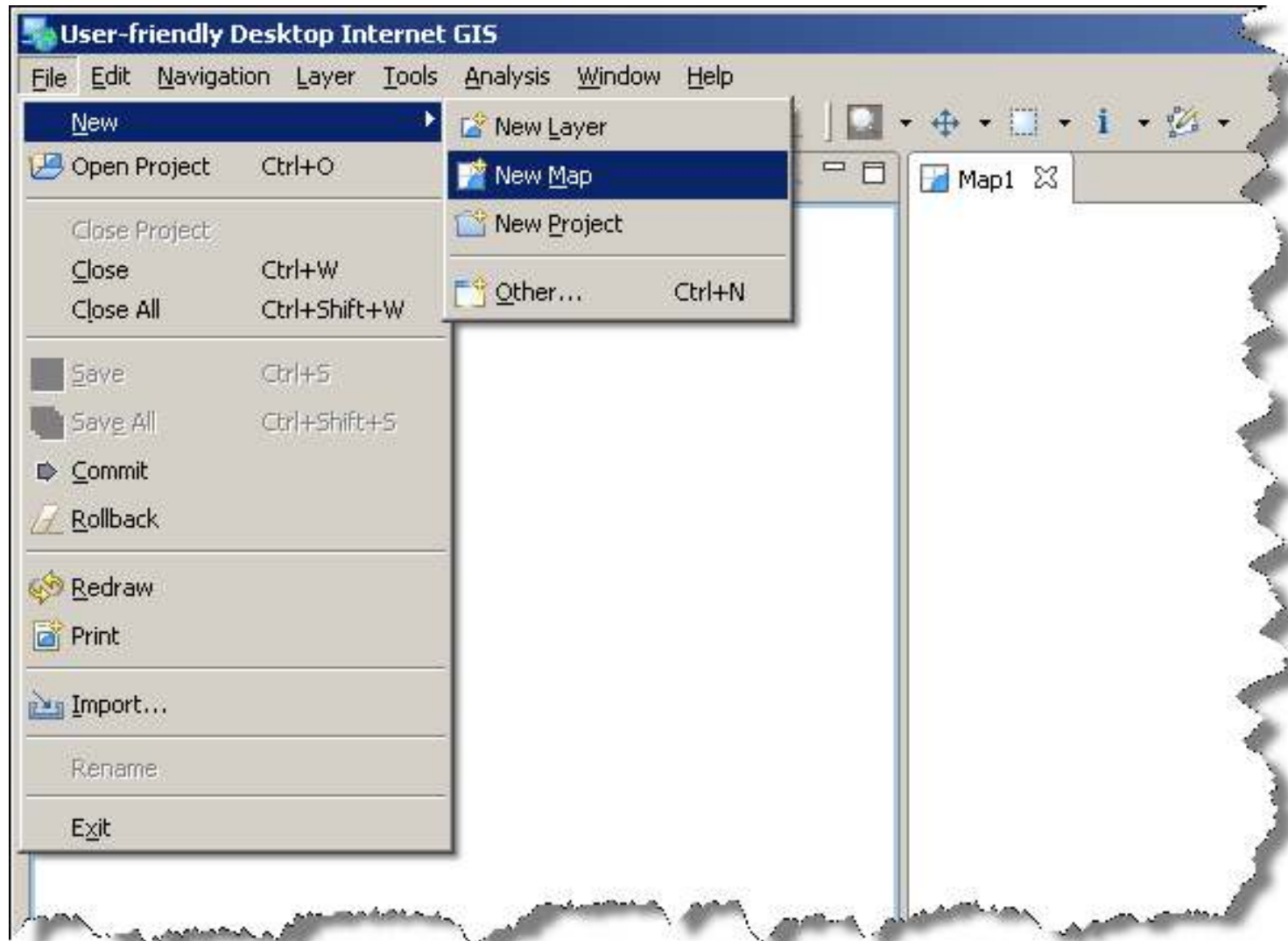
Password: Save Password

Add the ORNL DAAC WMS Get Capabilities URL here

Accessing ORNL DAAC Web Map service (WMS) in ESRI ArcGIS : Step 3/3



Accessing ORNL DAAC Web Map service (WMS) in uDig : Step 1/4

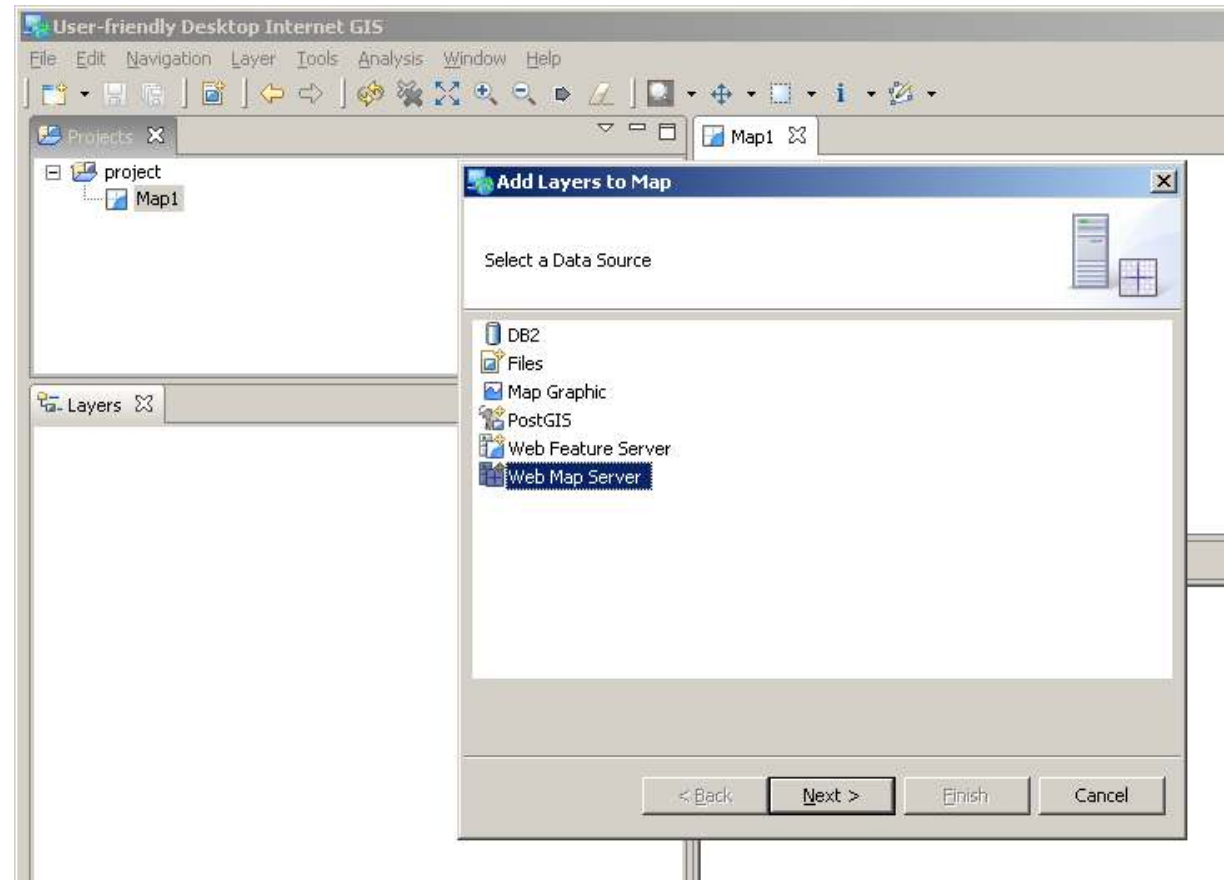


Create a New map

Accessing ORNL DAAC Web Map service (WMS) in uDig : Step 2/4



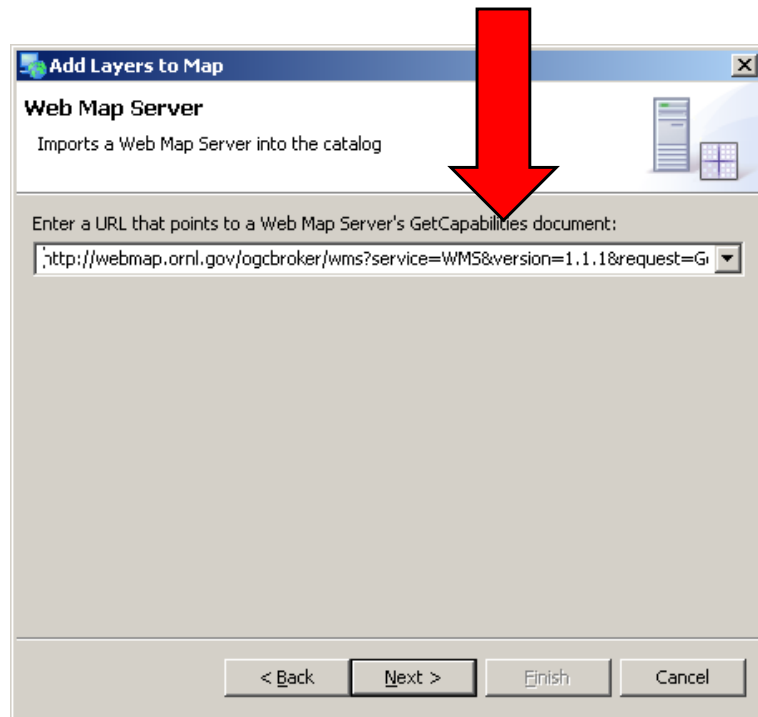
Add a WMS data layer



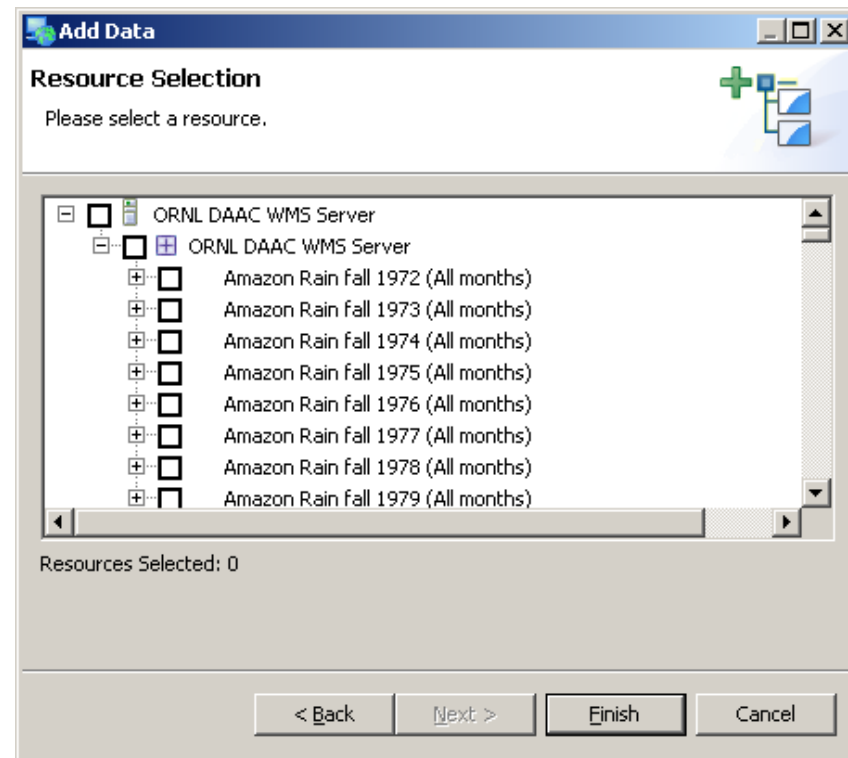
Accessing ORNL DAAC Web Map service (WMS) in uDig : Step 3/4

ORNL DAAC WMS GetCapabilities URL :

<http://webmap.ornl.gov/ogcbroker/wms?service=WMS&version=1.1.1&request=GetCapabilities>

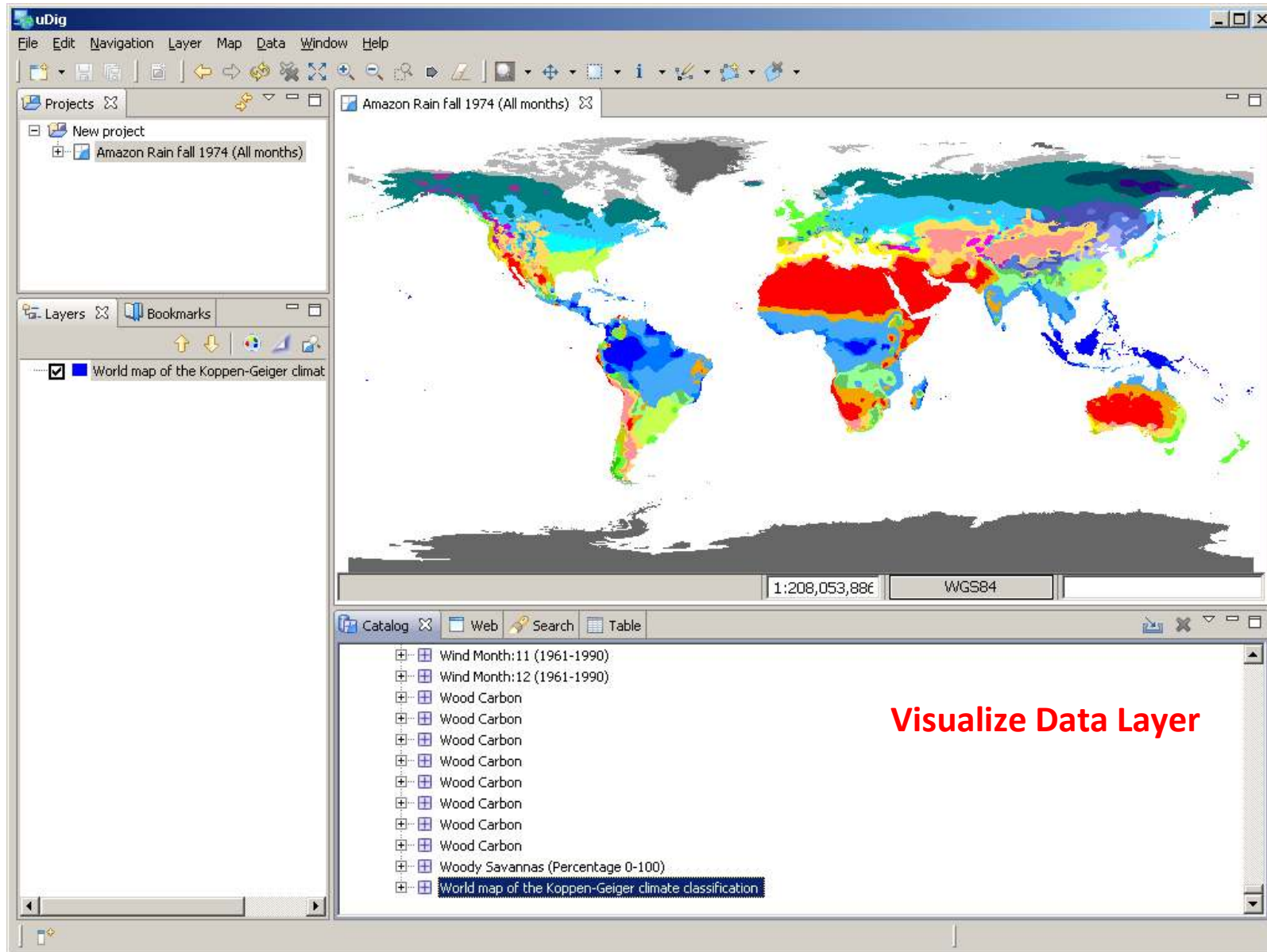


Provide ORNL DAAC WMS Get Capabilities URL

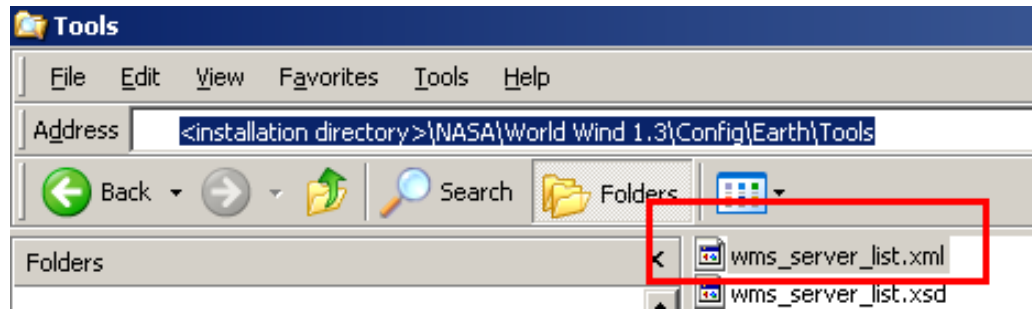


Select data layer

Accessing ORNL DAAC Web Map service (WMS) in uDig : Step 4/4



Accessing ORNL DAAC Web Map service (WMS) in World Wind : Step 1/3



Update WMS server list in NASA World Wind Installation directory

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <!-- edited with XMLSPY v2004 rel. 4 U (http://www.xmlspy.com) by Patri
3 <WMS_SERVER_LIST xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
4 <Server>
5     <Name>Animated Earth</Name>
6     <ServerUrl>http://aes.gsfc.nasa.gov/cgi-bin/wms</ServerUrl>
7     <Version>1.3.0</Version>
8     <Abstract>Animated Earth Visualization Server</Abstract>
9 </Server>
10 <Server>
11     <Name>GLOBE</Name>
12     <ServerUrl>http://viz.globe.gov/viz-bin/wmt.cg</ServerUrl>
13     <Version>1.1.1</Version>
14     <Abstract>GLOBE Visualization Server</Abstract>
15 </Server>
16 <Server>
17     <Name>ORNL DAAC WMS</Name>
18     <ServerUrl>http://webmap.ornl.gov/ogcbroker/wms</ServerUrl>
19     <Version>1.1.1</Version>
20     <Abstract>ORNL DAAC Visualization Server</Abstract>
21 </Server>
22
23 </WMS_SERVER_LIST>
24
```

Accessing ORNL DAAC Web Map service (WMS) in World Wind : Step 2/3

The screenshot shows the NASA World Wind application interface. The main window displays a 3D globe of Earth. A red text overlay on the left side of the globe reads "Select WMS Browser". A "WMS Browser" icon is visible on the globe's surface. In the top right corner, the following coordinates are displayed: Latitude: 0°, Longitude: 0°, Heading: 0.00°, Tilt: 0°, Altitude: 12756.27km, Distance: 12756.27km, and FOV: 45°.

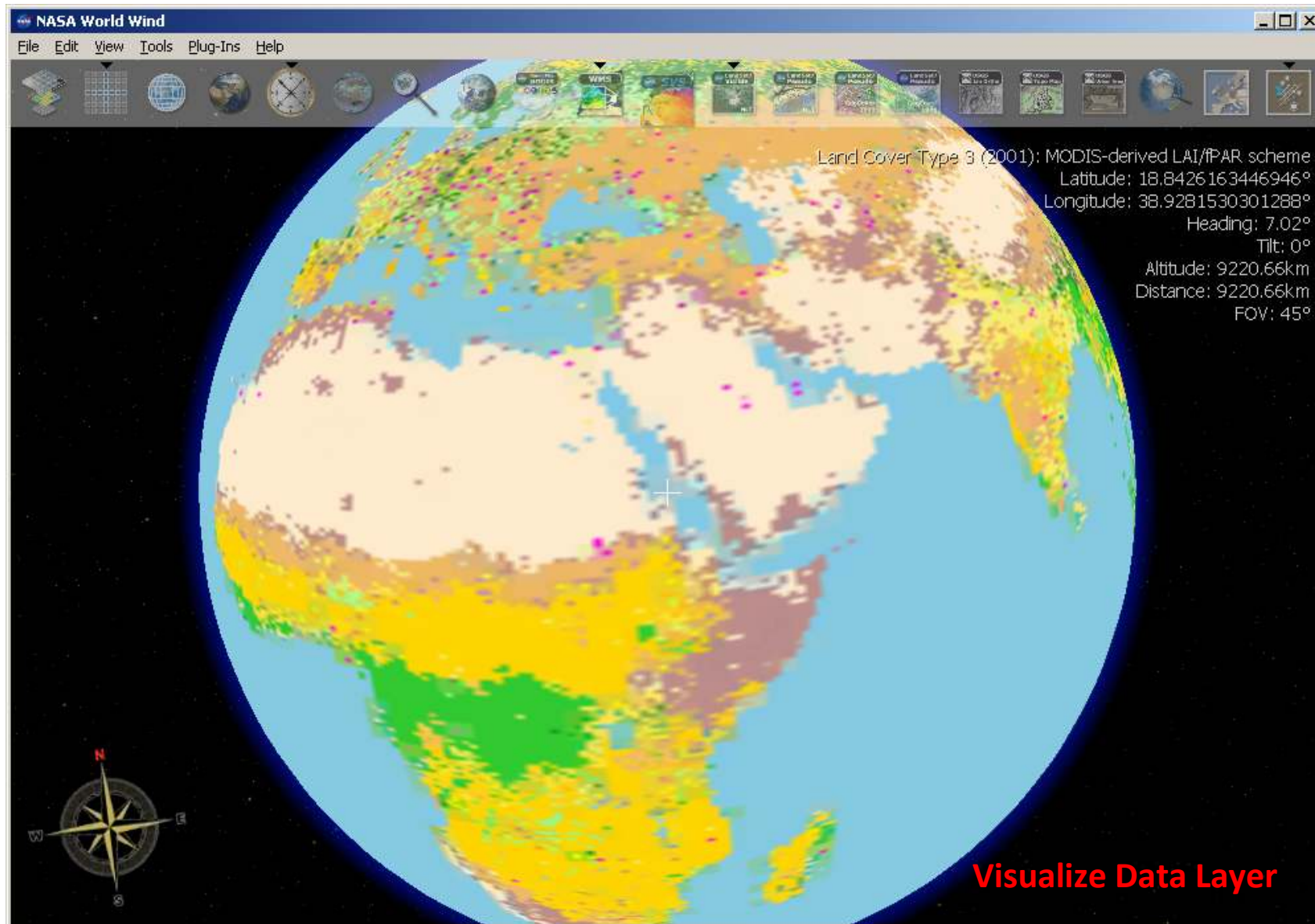
A "Web Mapping Server Browser" window is open in the foreground, displaying a list of data layers from the "ORNL DAAC WMS Server". The list includes:

- Amazon Rain fall 1972 (All months)
- Amazon Rain fall 1973 (All months)
- Amazon Rain fall 1974 (All months)
- Amazon Rain fall 1975 (All months)
- Amazon Rain fall 1976 (All months)
- Amazon Rain fall 1977 (All months)
- Amazon Rain fall 1978 (All months)
- Amazon Rain fall 1979 (All months)
- Amazon Rain fall 1980 (All months)
- Amazon Rain fall 1981 (All months)
- Amazon Rain fall 1982 (All months)
- Amazon Rain fall 1983 (All months)
- Amazon Rain fall 1984 (All months)
- Amazon Rain fall 1985 (All months)

Below the list, there are controls for "Single Image" and "Animation". The "Animation" tab is selected, showing a "Time Frame" dropdown, a "Speed" slider, and a "Use Cache" checkbox. The "Lat/Lon Bounds" section includes input fields for North (90.00), West (-180.00), South (-90.00), and East (180.00), along with "Auto" and "Reset" buttons. The "Options" section includes "Opacity" (100%), "Height" (10.000 m), and a "Legend" button.

A red text overlay on the right side of the "Web Mapping Server Browser" window reads "Select a data layer from ORNL DAAC WMS Server".

Accessing ORNL DAAC Web Map service (WMS) in World Wind : Step 3/3



Accessing ORNL DAAC Web Map service (WMS) in Quantum GIS : Step 1/3

ORNL DAAC WMS GetCapabilities URL :

<http://webmap.ornl.gov/ogcbroker/wms?service=WMS&version=1.1.1&request=GetCapabilities>

Add a WMS Layer

Create a WMS Server connection

Quantum GIS - 1.0.2-Kore

File Edit View Layer Settings Plugins Tools Help

New Vector Layer... N
Add Vector Layer... V
Add Raster Layer... R
Add PostGIS Layer... D
Add WMS Layer... W

Open Attribute Table...
Toggle editing
Save as Shapefile...
Save Selection as Shapefile...
Remove Layer Ctrl+D
Properties...
Add to Overview O
Add All to Overview +
Remove All From Overview -
Hide All Layers H
Show All Layers S

ORNL DAAC

Connect New Edit Delete Add del servers

Image encoding
 GIF JPEG PNG TIFF

Layers

Connection details
Name ORNL DAAC
URL http://webmap.ornl.gov/ogcbroker/wms?service=WMS&version=1.1.1

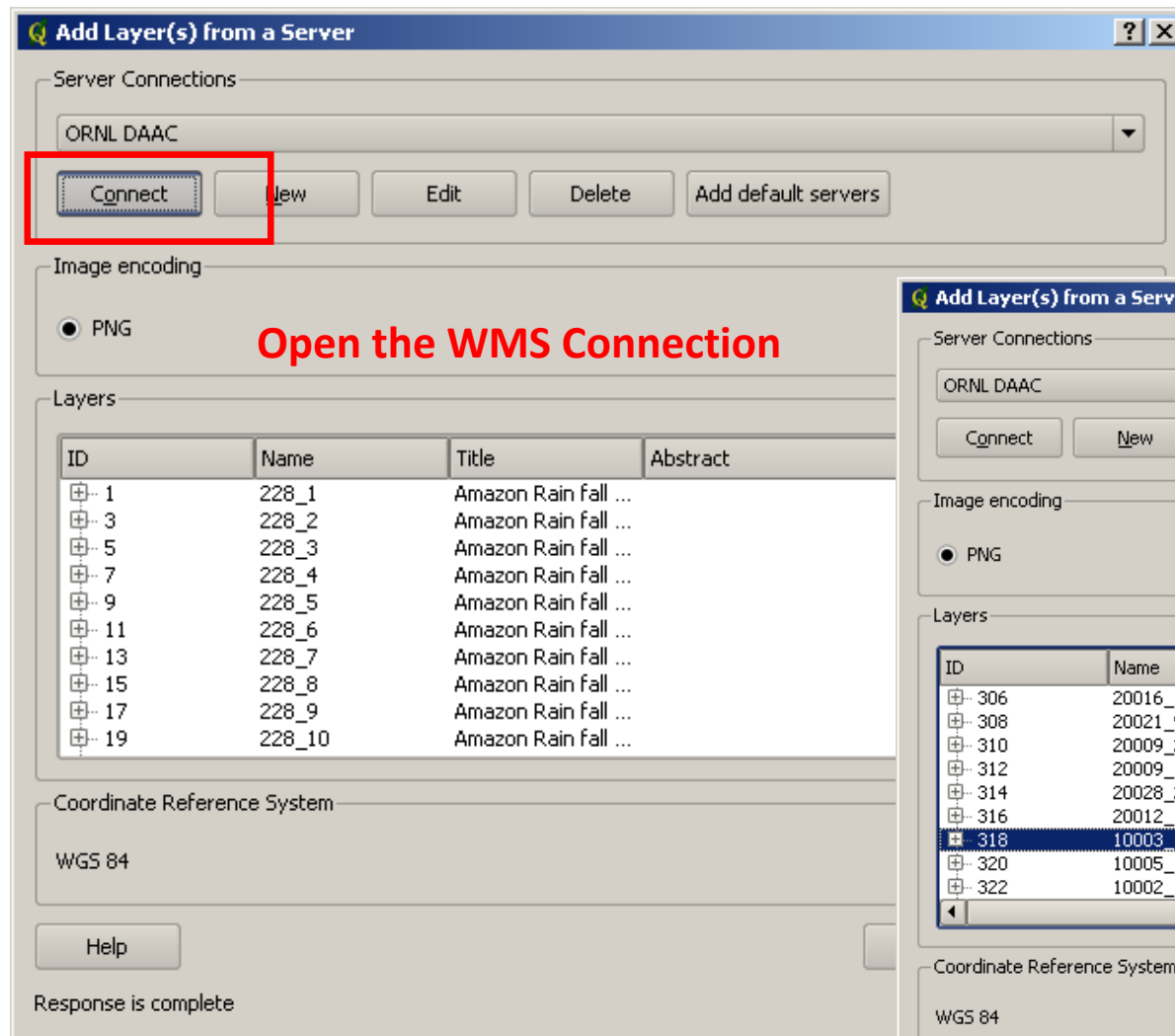
Help OK Cancel

Coordinate Reference System
WGS 84 Change ...

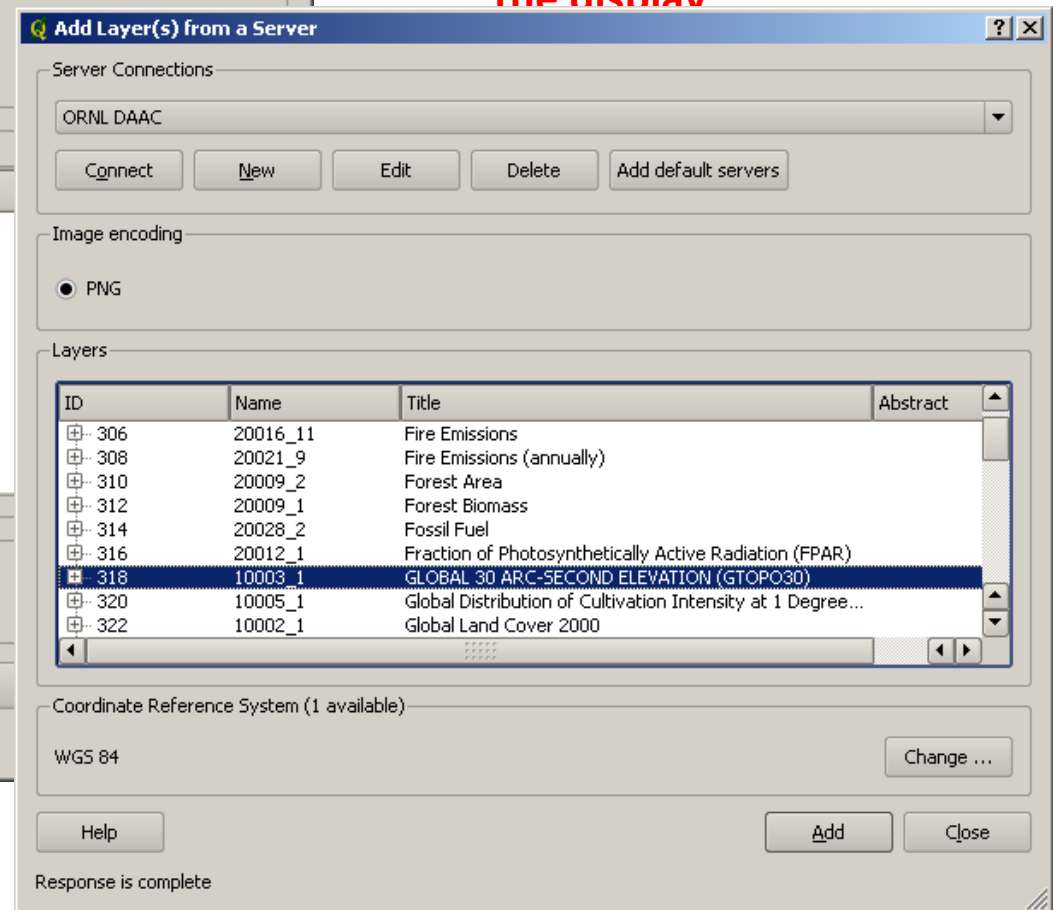
Help Add Close

Ready

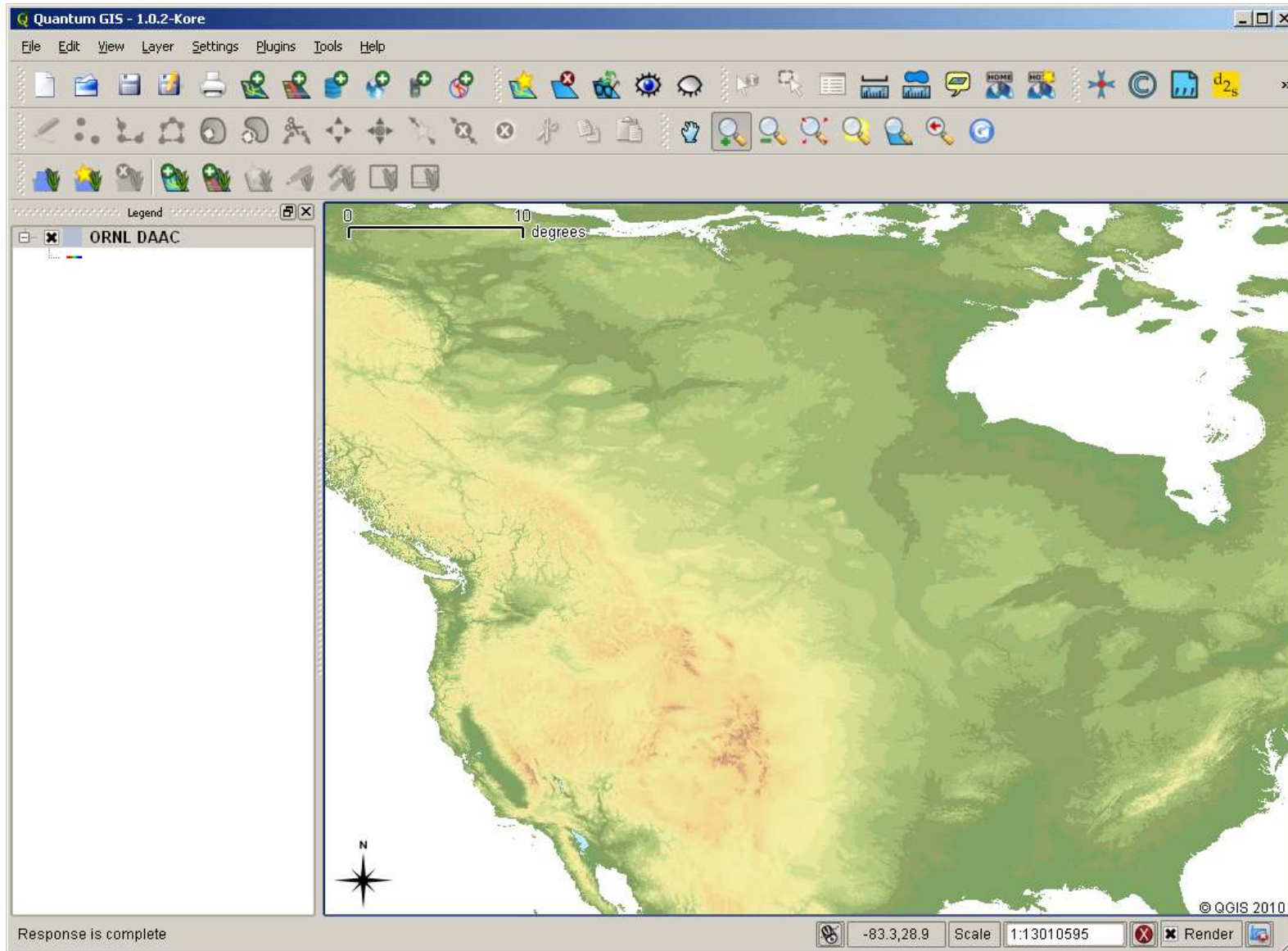
Accessing ORNL DAAC Web Map service (WMS) in Quantum GIS : Step 2/3



Select a data layer to add to the display



Accessing ORNL DAAC Web Map service (WMS) in Quantum GIS : Step 3/3



Visualize Data Layer