

Walkthrough 1: uDig Install and Introduction



User-friendly Desktop Internet GIS



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1) GOALS

After completing this walkthrough, you will have:

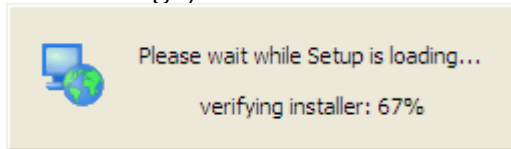
- Installed uDig from the Windows installer.
- Learned the basic uDig functionality.

2) INSTALLING AND RUNNING THE uDIG APPLICATION

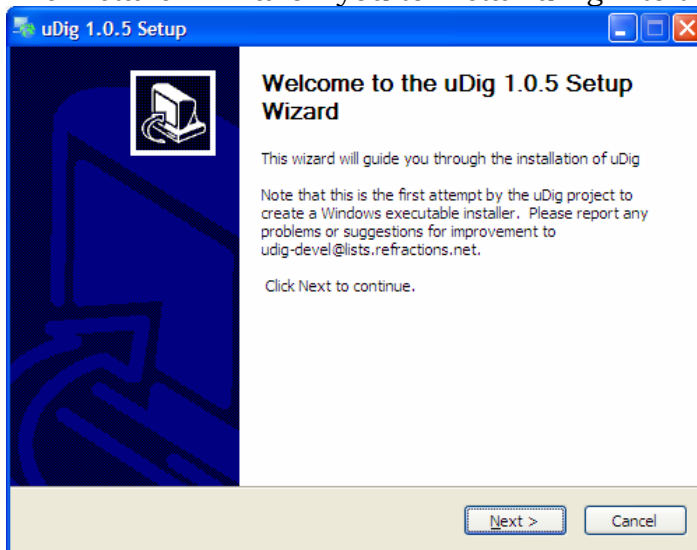
In this section, you will install and run the Eclipse Application, which will be used for viewing map information.

Windows install:

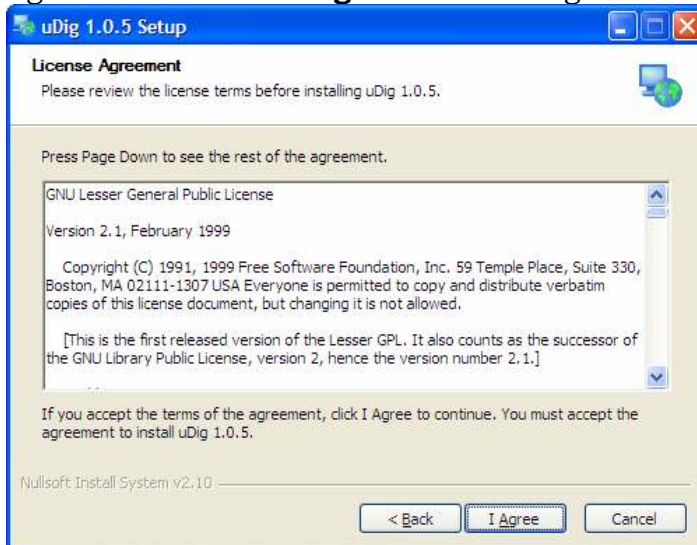
1. Double-click the installer uDig 1.0.5.exe (located in the same directory as this walkthrough).



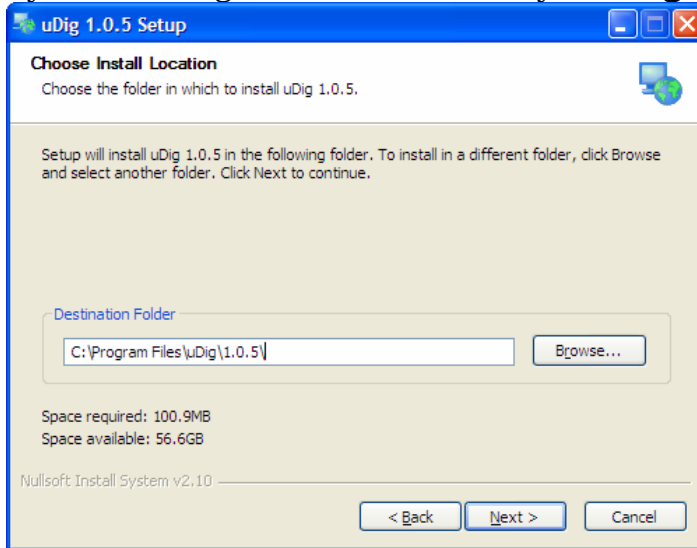
2. The installer will allow you to install uDig into the directory of your choice.



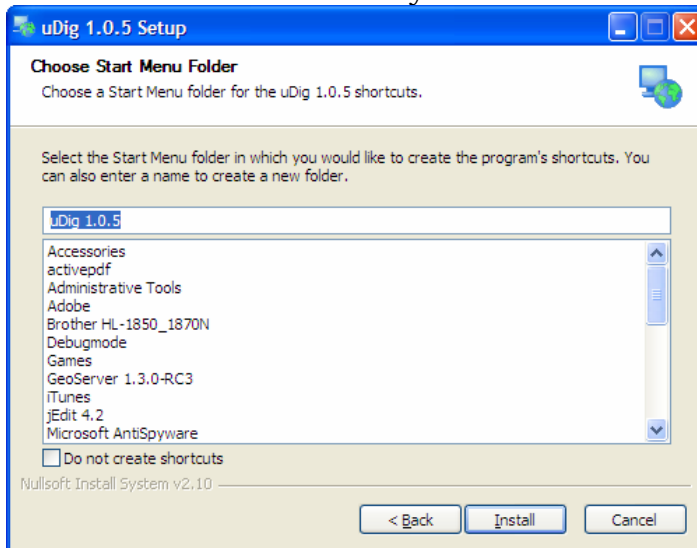
3. Agree to the **License Agreement** – uDig is made available under the LGPL.



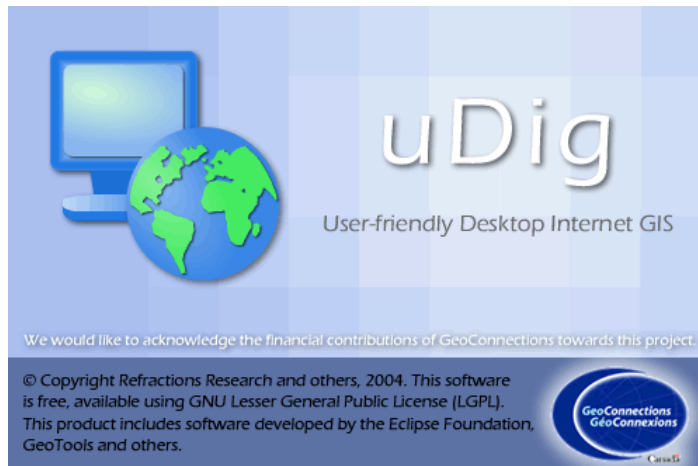
4. By default uDig will be installed into your **Program Files** directory.



5. Shortcuts will be created in your start menu.



6. After completing the installation, run the uDig application from the Windows **Start->Programs** menu



7. Click on the **Workbench** arrow in the top right corner of the uDig welcome screen to open the uDig workbench area.



3) ONLINE DOCUMENTATION AND TUTORIALS

In this section you will open up the online tutorial, and access reference information.

Online Tutorials

- 1) You can access an online tutorial directly from the Welcome screen:



- 2) This will bring up the online help system; the help system is a web application that makes use of a **Contents** view to allow you to navigate between **Pages**.



Refresh / Show Current Topic

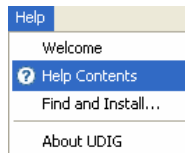
Can be used to find your place in the table of contents



Show in Table of Contents

Can be used to find your place in the table of contents

You can also access online help at any time from the **Help menu**:



You can access additional reference information in the following categories:

uDig User Guide Getting Started Concepts Tasks Reference FAQ	This section contains tutorials that will help users to familiarize themselves with UDIG and its user interface. At this time there is one tutorial available:
uDig User Guide Getting Started Concepts Tasks Reference FAQ	High-Level description of ideas, architecture. Provides background information to understand what is going on. ● Related concepts
uDig User Guide Getting Started Concepts Tasks Reference FAQ	Task descriptions are step by step instructions for performing specific actions and tasks in the Workbench. For example, the Tasks section contains step by step instructions for connecting to a Web Map Server, and for adding a layer into a Map. ● Related tasks
uDig User Guide Getting Started Concepts Tasks Reference FAQ	● Related reference <ul style="list-style-type: none">• Views and editors• Menus• Toolbars• Preferences

4) CONNECTING TO A WEB MAP SERVER

In this section you will learn how to drag and drop a Web Map Server (WMS) link into uDig for the purpose of viewing its layers.

- 3) There are many ways to load map data into uDig, including drag and drop. To drag a Web Map Server (WMS) link into uDig, open up a web browser.
- 4) Please connect to the Walkthrough 1 page with Firefox:
<http://udig.refractions.net/confluence/display/UDIG/Walkthrough+1>
- 5) Click and drag the **DM Solutions WMS** from the web page onto the Layers View on the left, and drop it there.

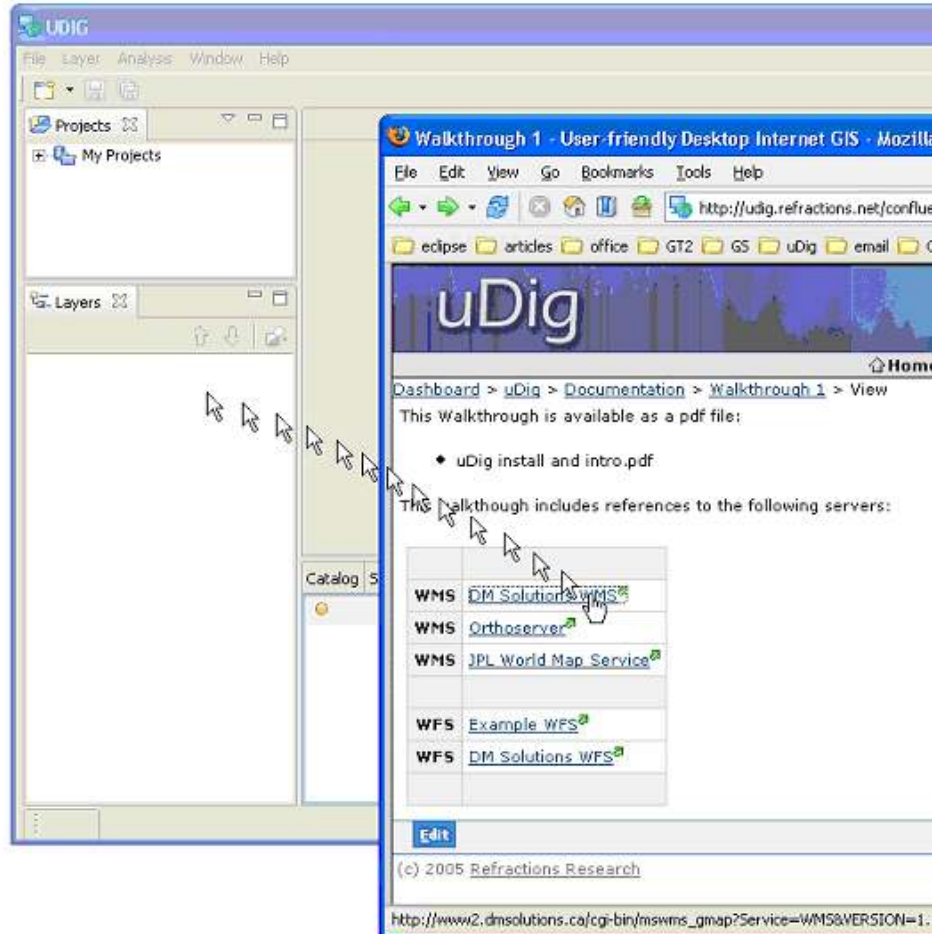


Figure 1 Drag and Drop WMS link into uDig

Tip: *If working with your windows maximized: 1) Drag from the web browser 2) Hover on the uDig application in the windows taskbar 3) Drop into the Map area.*

- 6) The **Add Layers** wizard will appear asking you what layers from this WMS you want to show in your map. Select **bathymetry, park, popplace** and **Finish**.

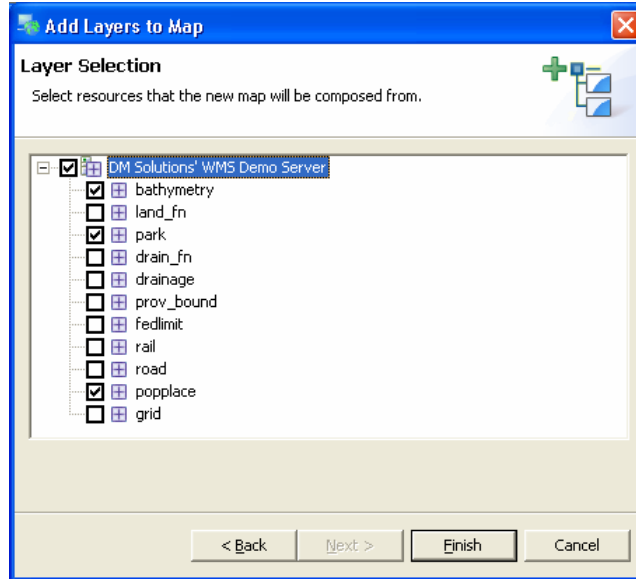


Figure 2 Add Layers Window

8. The map layers will now **render** in the Map view. Notice the bottom right corner of the uDig Application will display a **processing notice** while it is requesting and drawing the layers.

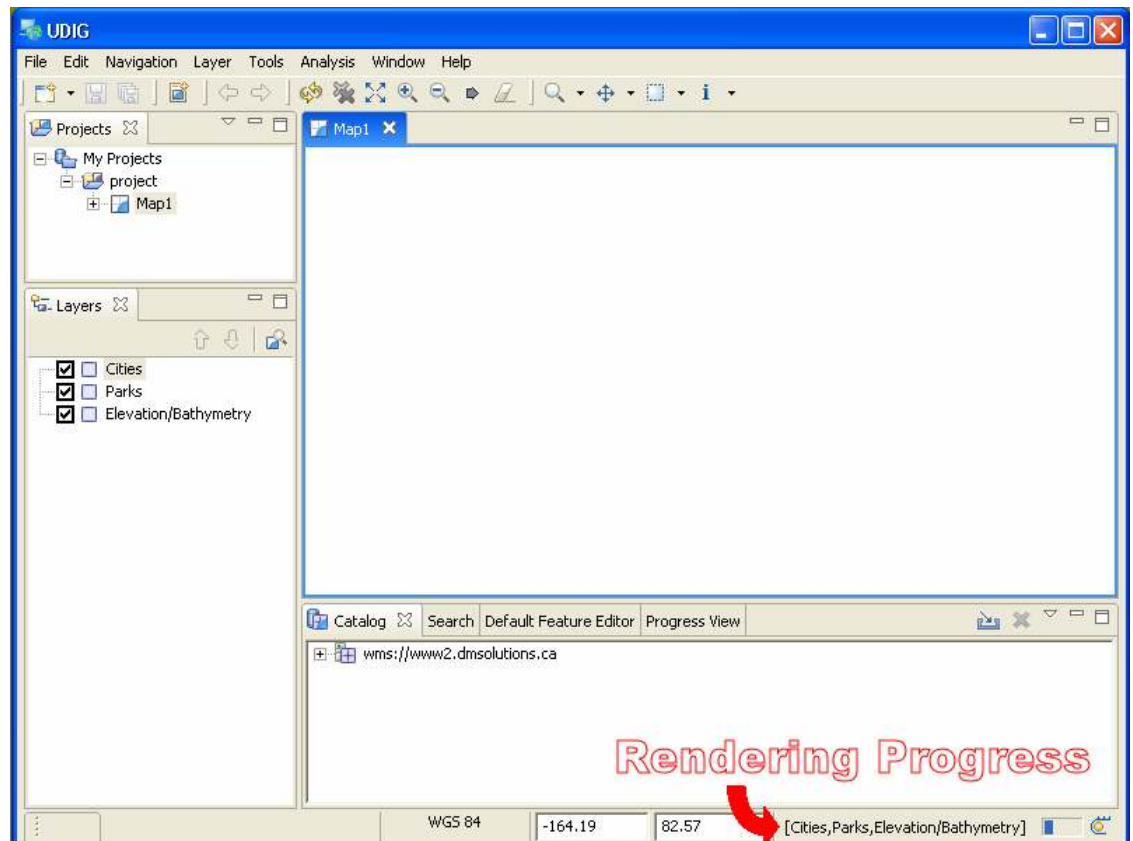


Figure 3 Render Processing Display

Tip: You can press on the button next to the progress monitor to watch detailed information (and cancel) rendering requests.

9. When the layers are done rendering, the **Map** view will display the visible layers.

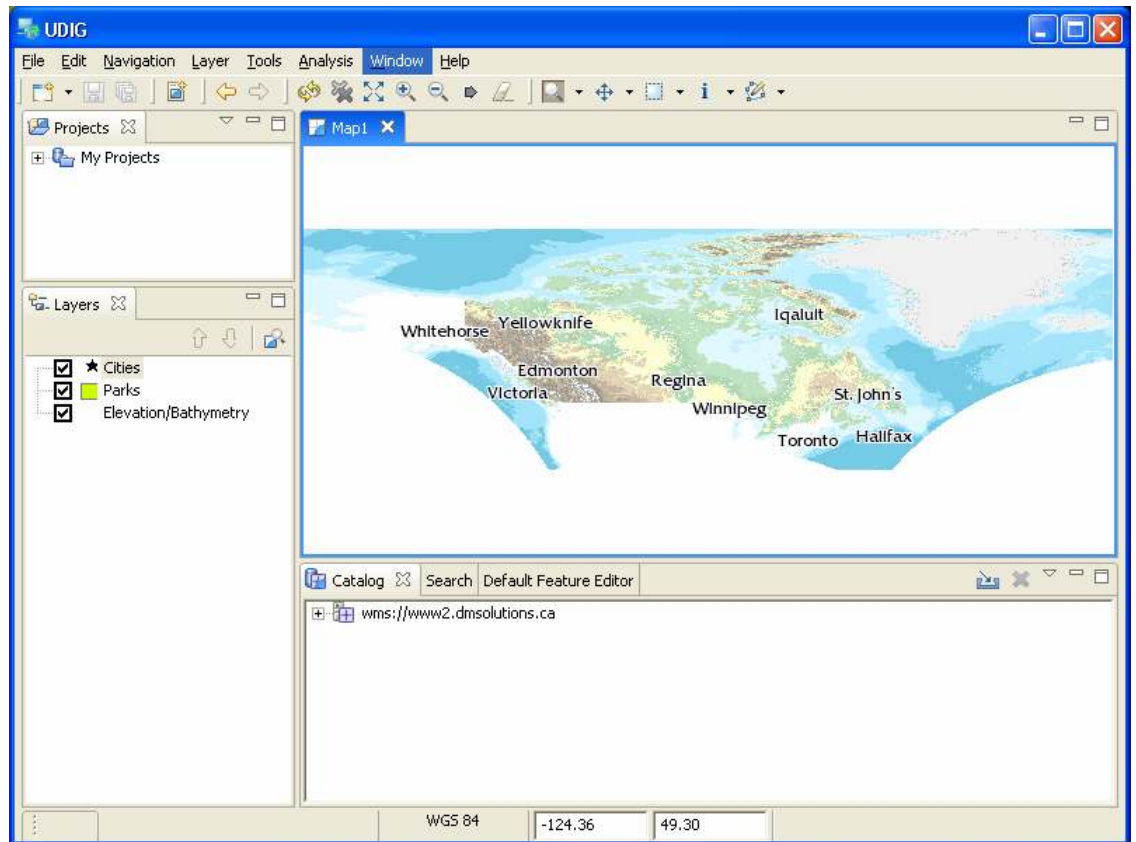


Figure 4 Rendered Layers

Now that you have some data on screen try playing with the following tools:

- Zoom Tool: (keyboard short cut Z)
- Pan Tool: (keyboard short cut P)

Tip: When using the zoom tool the mouse scroll wheel can be used to quickly change scale.

5) ADDING LAYERS FROM THE CATALOG VIEW

In this section you will learn how to add additional layers to your map from a previously connected data source (the DM Solutions WMS).

Adding a Layer from a previously connected WMS:

1. In the **Catalog** view of uDig (center bottom), expand the connection you have to **wms://www2.dmsolutions.ca**. Right-click on the **prov_bound** layer and select **Add to Current Map**.

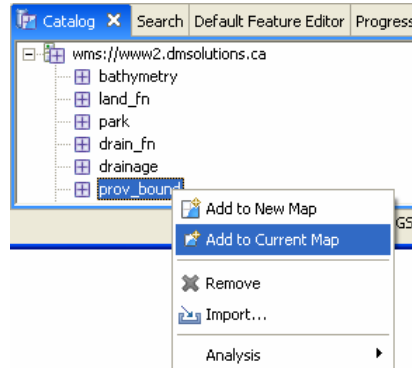


Figure 5 Add Layer to Map

2. The new layer will appear in the **Layers** view, and it will automatically start to render. When it finishes rendering, you should see black lines representing the provincial borders on the map (the new layer).

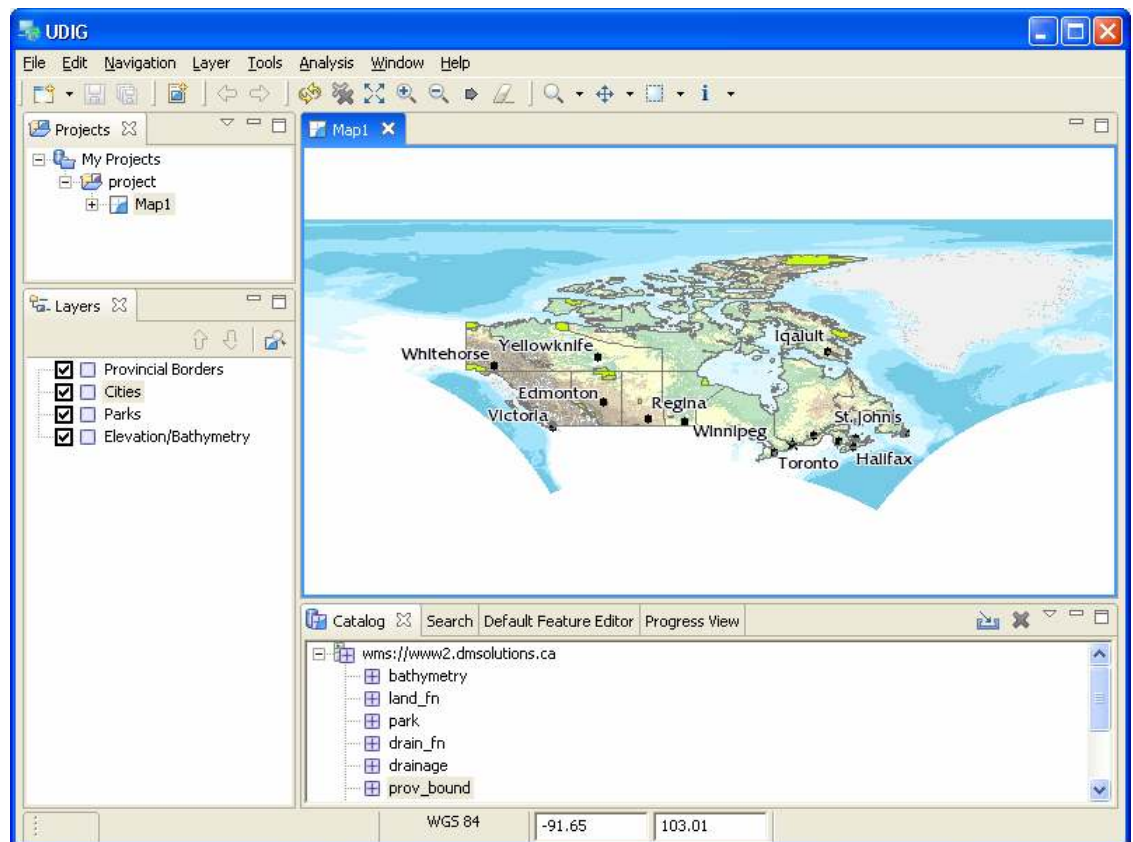


Figure 6 Viewing Multiple Layers

6) ADDING A LAYER FROM PROJECTS VIEW

Adding a Layer from a PostGIS database:

- 1) In the File menu, select **New -> New Map**. Then in the **Projects** view, right-click on **Map2** and select **Add...** to bring up the Add Layer wizard.

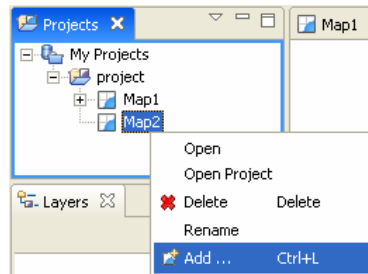


Figure 7 Map Context Menu

1. Select **PostGIS** as the data source and click **Next**.

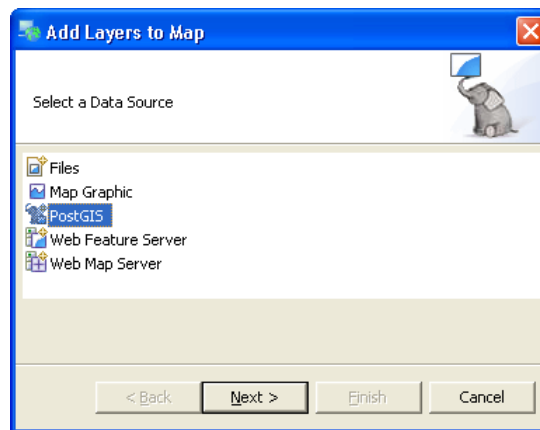


Figure 8 Adding a Layer from PostGIS

2. Enter the following connection information:

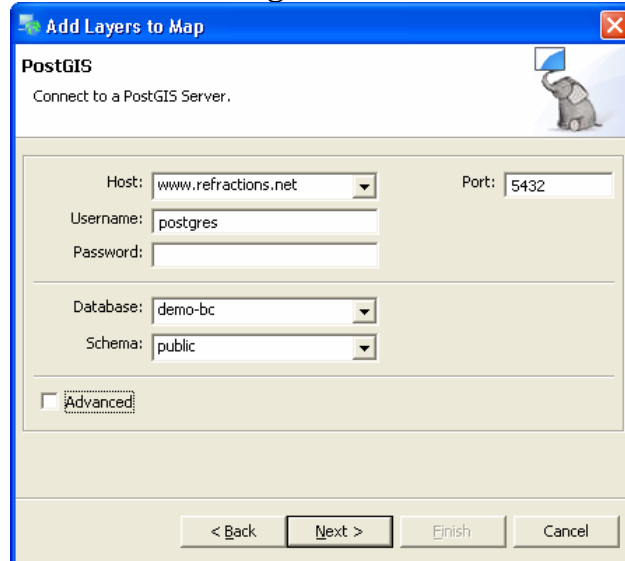


Figure 9 Connecting to a PostGIS database

3. Once the connection information is entered, click on the database drop-down. Select the **demo-bc** database and press **Next**.

4. Select only the **bc_voting_areas** and the **bc_hospitals** data, then click **Finish**.

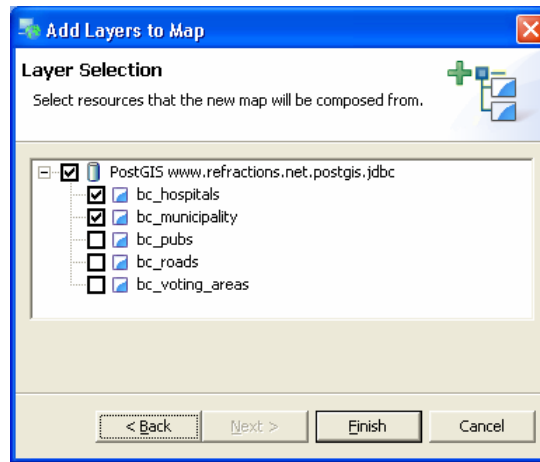


Figure 10 Select Postgis Table

5. It may take a short while to fully render since you are zoomed out so far, but your new map should look something like this:

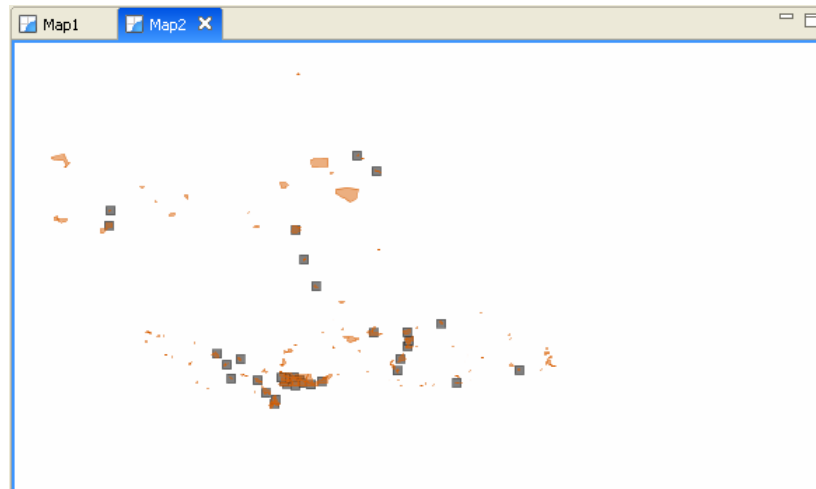


Figure 11 Viewing a second map

7) WORKING WITH FILES

You can work directly with files from the file system:

1. Navigate to the included data directory.
2. Drag and Drop the file **bc_2m_border.shp** onto **Map2**.

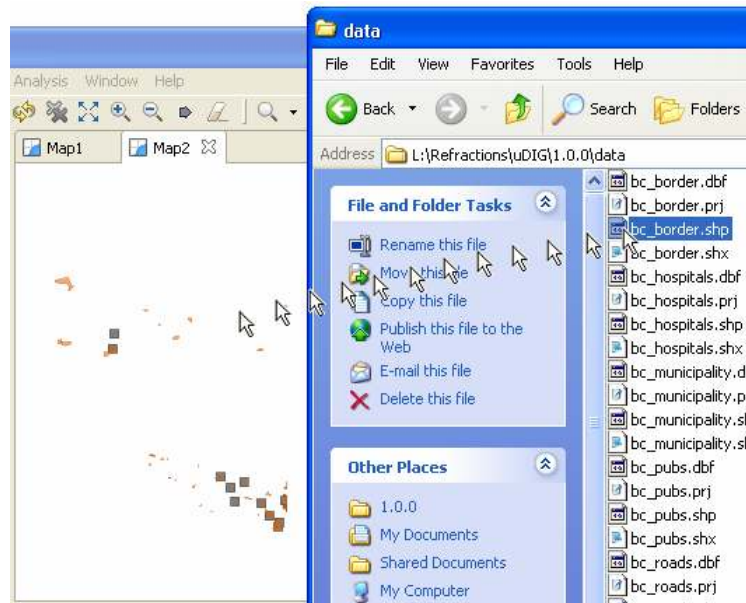


Figure 12 Drag and Drop File

3. This provides a bit of context for your Postgis layers.

8) IMPORT DIRECTLY TO THE CATALOG

Earlier we learned how to work with previously used content from on the Catalog view. Lets do that again:

1. On the **Catalog View** please press the Import button:

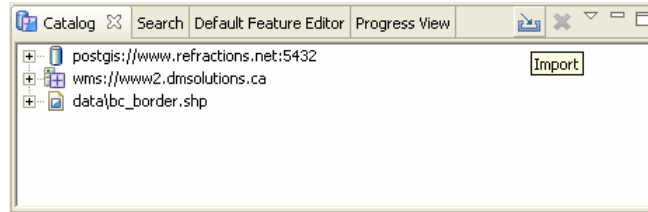


Figure 13 Catalog Import

2. Select **Data** and press **Next**.

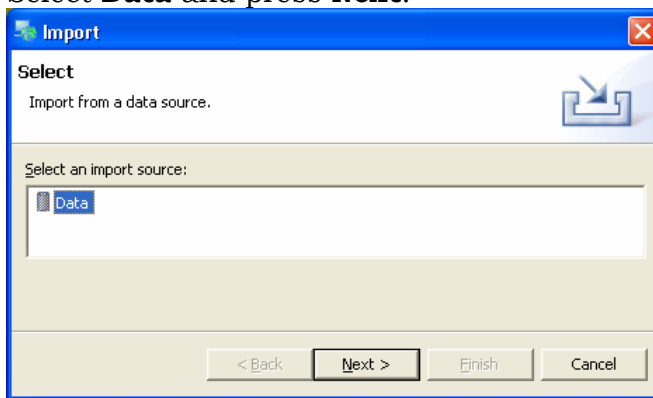


Figure 14 Import Data

(The next release will support Style and Context documents.)

3. Please choose **Web Map Server** from the list and press **Next**.

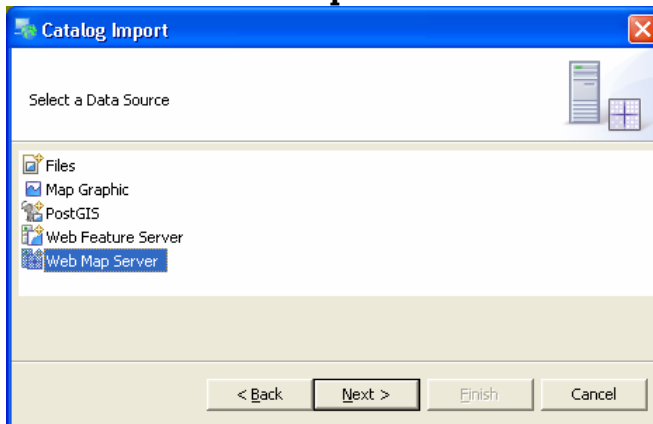


Figure 15 Import Web Map Server

- This time we are going to import the JPL World Map Service from the following Capabilities document:

<http://wms.jpl.nasa.gov/wms.cgi?Service=WMS&Version=1.1.1&Request=GetCapabilities>

- Press **Finish** to import the Web Map server.

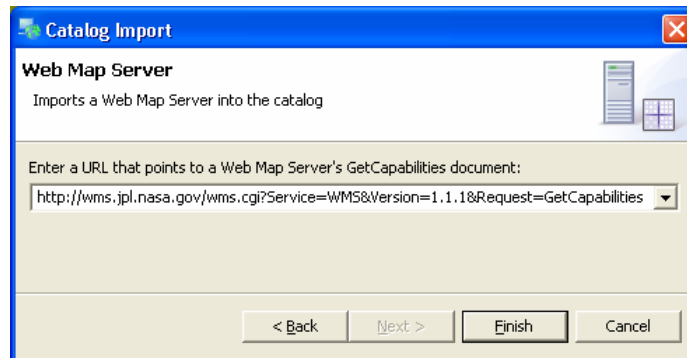
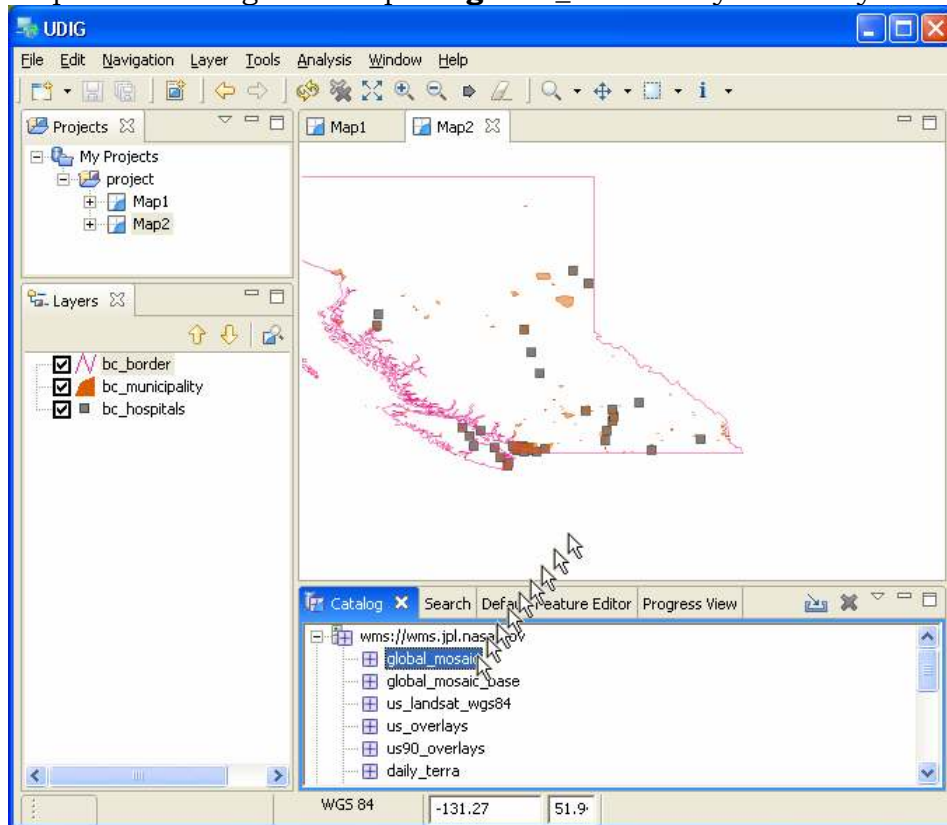


Figure 16 Import JPL World Map Service

- Now that we have imported the WMS into the catalog we can add it to our Map. Please Drag and Drop the **global_mosaic** layer directly onto **Map2**.



Now that the **global_mosaic** layer is rendered on top of your existing content lets proceed to the next section on reordering layers.

9) REORDERING LAYERS

In this section you will learn how to reorder layers in your map.

1. At the end of the previous section we left **Map2** in the following state:

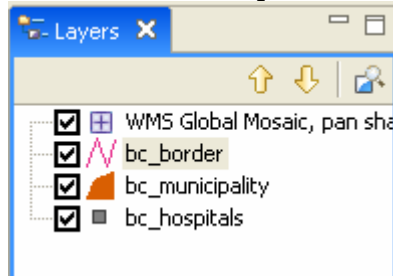


Figure 17 Layers View

The **Layers view** is used to describe the content of the map, and the order in which the content is drawn.

2. To change the layer order, select the **WMS Global Mosaic, pan sharpened** layer and press the **Down** arrow.

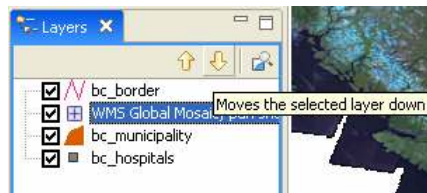


Figure 18 Layer Down Button

3. You can also just select a Layer and Drag it to the position you desire. Lets do that now, Drag and Drop the **WMS Global Mosaic, pan sharpened** layer to the bottom of the list.

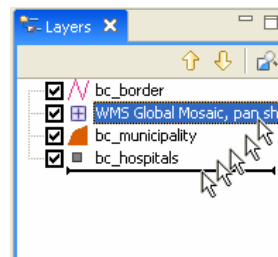


Figure 19 Drag and Drop Layer Order

Moving layers up and down will change their visibility in relation to each other, and it will automatically restart rendering the map.

10) THEMED DATA

Some files come with “Style Layer Descriptor” (or SLD) documents describing how they should be rendered. Lets work with one:

1. In the **Layer** menu, select **Add...**
2. Choose **Files** from the provided list and press **Next**:

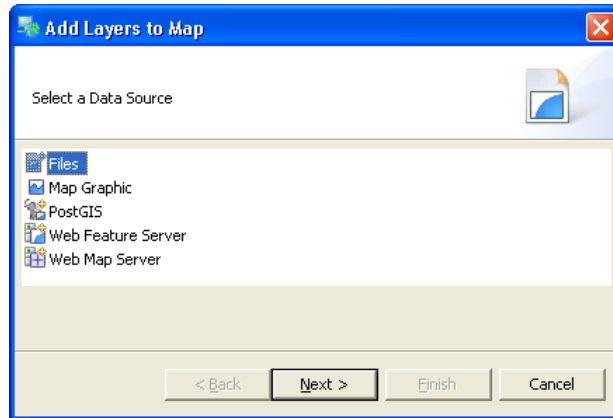


Figure 20 Add File

3. Select the file **countries.shp** from the data directory and **Open**:

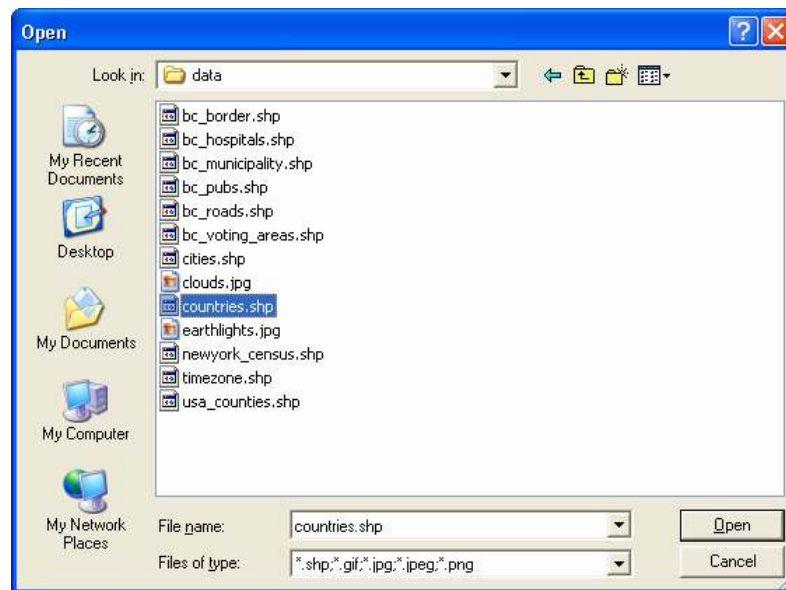


Figure 21 Open Countries.shp

4. The countries layer will be added, and rendered with labels as outlined in the file **countries.sld**

Tip: When working with your own SLD documents you can DnD the files onto a Layer to try it out. You may have to refresh afterwards.

11) SEARCHING AND INFORMATION

In this section, you will learn how to use the Search View.

1. Select the **Search View**.
2. Insert the cursor into the **text box** and type “bird”. Press **enter**.

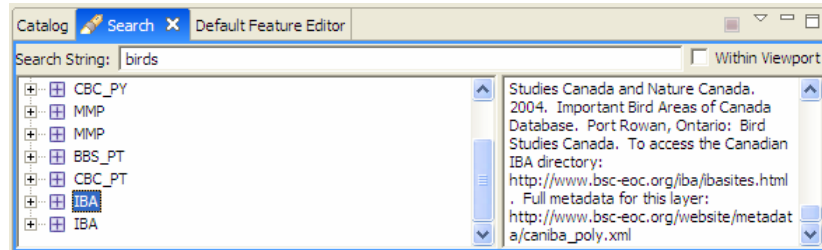


Figure 22 Search View

3. Once the entries appear right-click on **Canadian Important Bird Areas** and select **Add To New Map**.
4. For context, drag the **countries** shape file in from your catalog and use it as a backdrop.

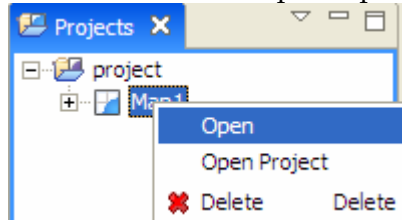
All sorts of interesting content is available on the web.

What can you find?

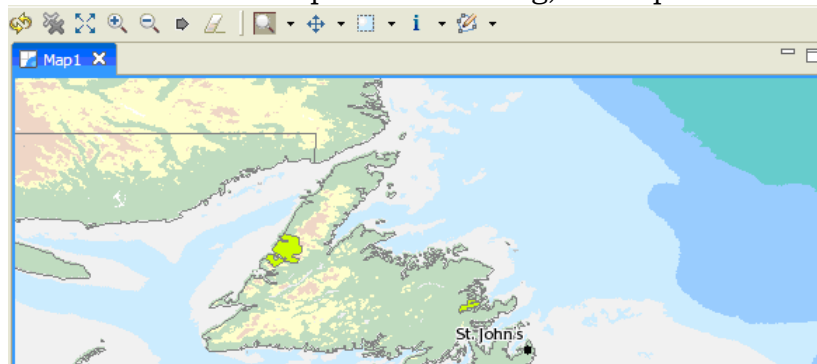
12) INFORMATION REQUEST

In this section, you will learn how to use the Information Tool.

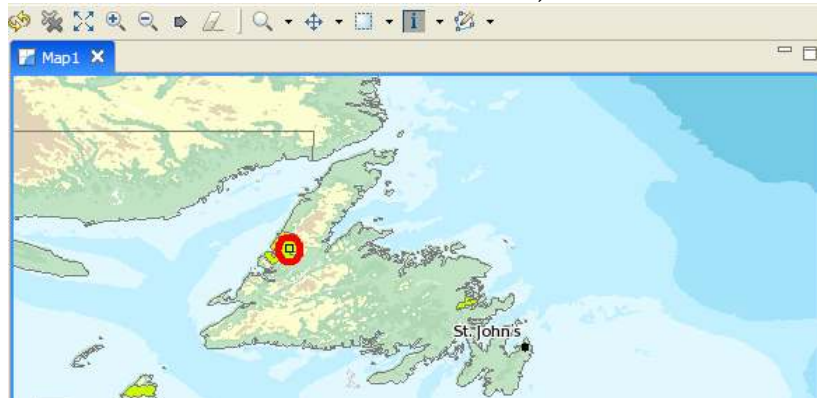
1. To start with lets open up **Map1** again.



2. Lets **Zoom** into someplace interesting, like a park.

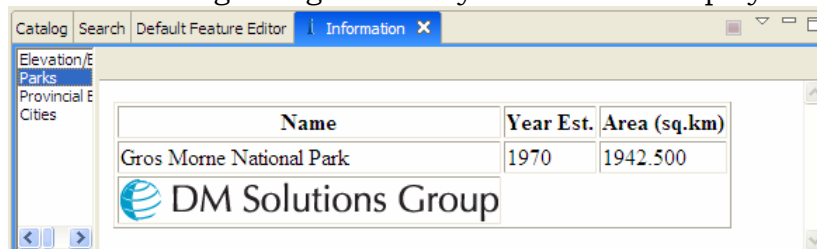


3. Select the **Info Tool** from the toolbar, and click on a nice green park.



Tip: You can use the keyboard short-cut 'i' to choose the info tool

4. Note how the **Information View** is brought into focus.
5. Select the layer name **Parks** in the left pane of the **Information View**. Information regarding the area you clicked is displayed in the **right pane**.



Not all Web Map Servers support the "GetFeatureInfo" operation; as such information may not be available for all layers. The application uses a normal browser to display HTML content, you can drag the view out of the workbench if you find you need more elbowroom.

13) FINISHED ALREADY?

If you finish early here are some challenges.

- There is more data available in the data directory- have a look
- Try right clicking on a Layer – there is plenty to do (starting with styling).
- Have a search for information in your area?
- Is content you have published available via search?
- Try out the navigation tools such as Zoom and Pan (the Navigation menu lets you go back to previous locations like a web browser).
- Advanced: Have a look at the **countries.sld** file and see what you make of it?

Perhaps you have an idea for the tool you always wanted?