

Department of Forest Resources
University of Minnesota
FR 3131 – FR5131
GEOGRAPHICAL INFORMATION SYSTEMS FOR NATURAL
RESOURCES
Fall 2009

Homework 1

Due Friday, October 30, 2009 *(by 11:59 p.m. on WebVista)*

Select an area of Minnesota_ *(Something you know or have an interest in; like Washington County).*

Go to the Minnesota Department of Natural Resources GIS Data Deli:
<http://deli.dnr.state.mn.us>

Follow instructions below *(if you still have problems see the detailed instructions for the using the GIS Data Deli, http://deli.dnr.state.mn.us/data_search_help.html)*

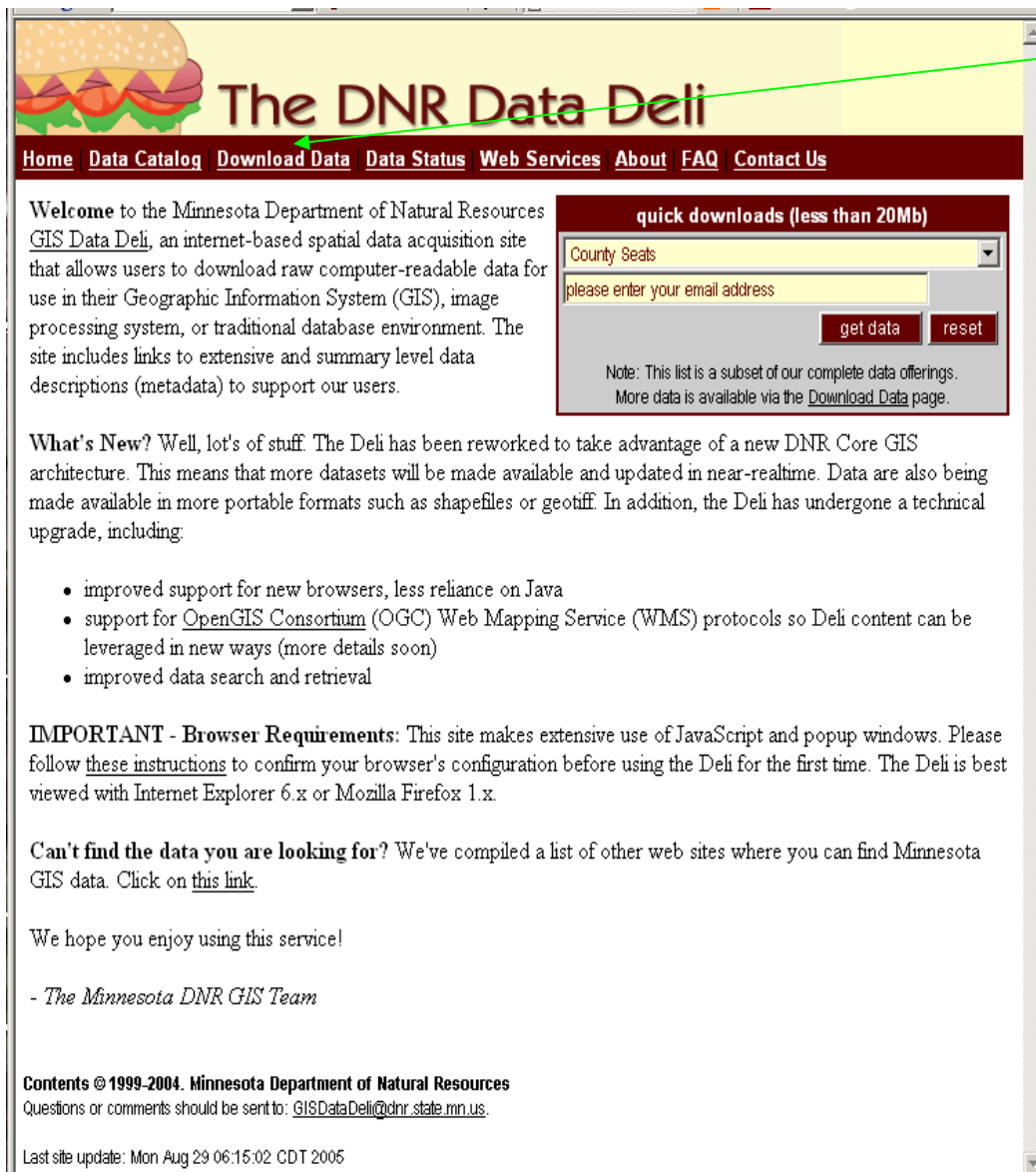
Download and Unzip (or IZArc) at least 3 data layers for an area.
(You may want to pick a 1:24000 quad as it will be quicker downloading.)

Print to a .pdf, the 3 layers in ArcMap (Create a new Map, set layer Properties to meters, add and display the three Data Layers, switch to Print Layout, add north arrow, legend, scale, title, your name and Print).

See attached sheets for an example:

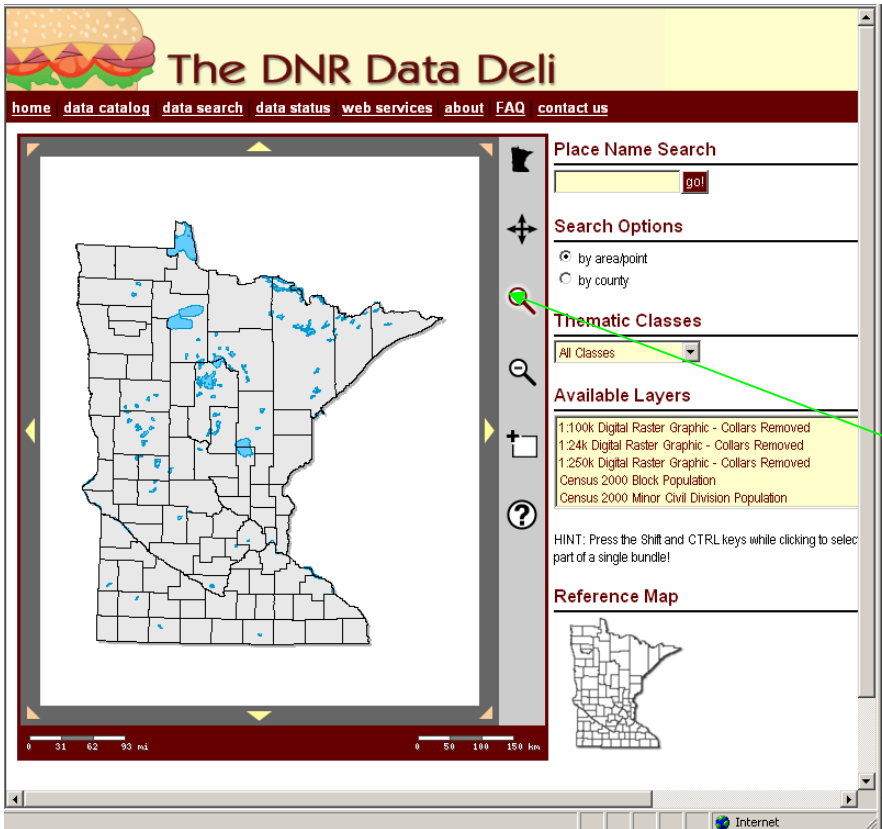
Note: as you will select the area and layers the following instructions are not able to be "step by step". Provided are simple general instructions but you may select layers that require extra steps. Please read the MN DNR Data Deli Instructions carefully. The DNR does a great job explaining the valuable service they offer to free of charge.

On the Internet go to <http://deli.dnr.state.mn.us>



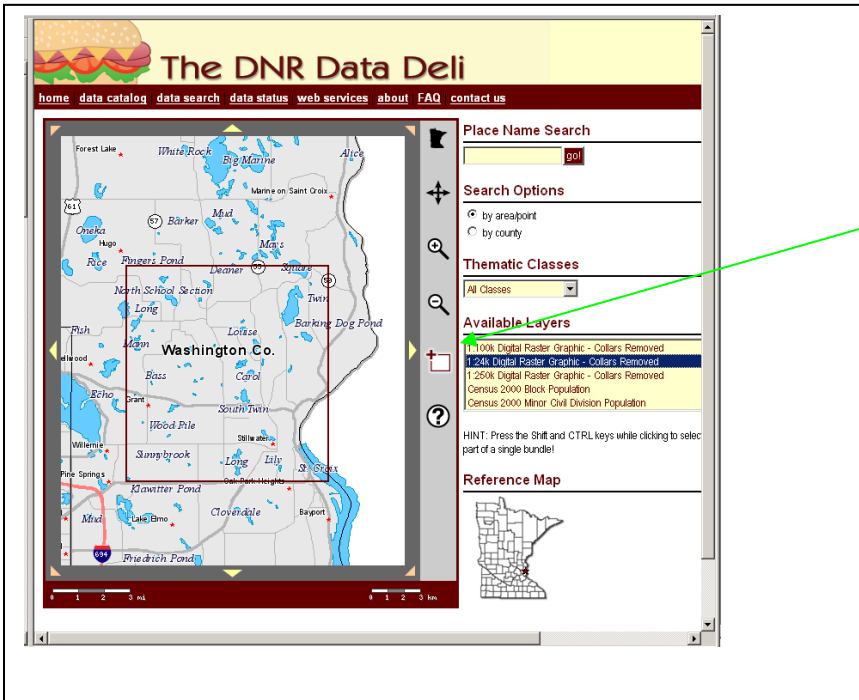
The screenshot shows the homepage of 'The DNR Data Deli'. At the top left is a logo featuring a hamburger. The main title 'The DNR Data Deli' is in a large, bold font. Below the title is a dark red navigation bar with white text links: Home, Data Catalog, Download Data, Data Status, Web Services, About, FAQ, and Contact Us. A green arrow points from a text box on the right to the 'Download Data' link. The main content area has a light yellow background. On the left, there is a welcome message and a 'What's New?' section with a bulleted list of updates. On the right, there is a 'quick downloads (less than 20Mb)' section with a dropdown menu showing 'County Seats', an email input field, and 'get data' and 'reset' buttons. Below this is a note about the data subset. At the bottom, there are sections for 'IMPORTANT - Browser Requirements', 'Can't find the data you are looking for?', and a footer with copyright information and a last update date.

Select the Download Data menu item.

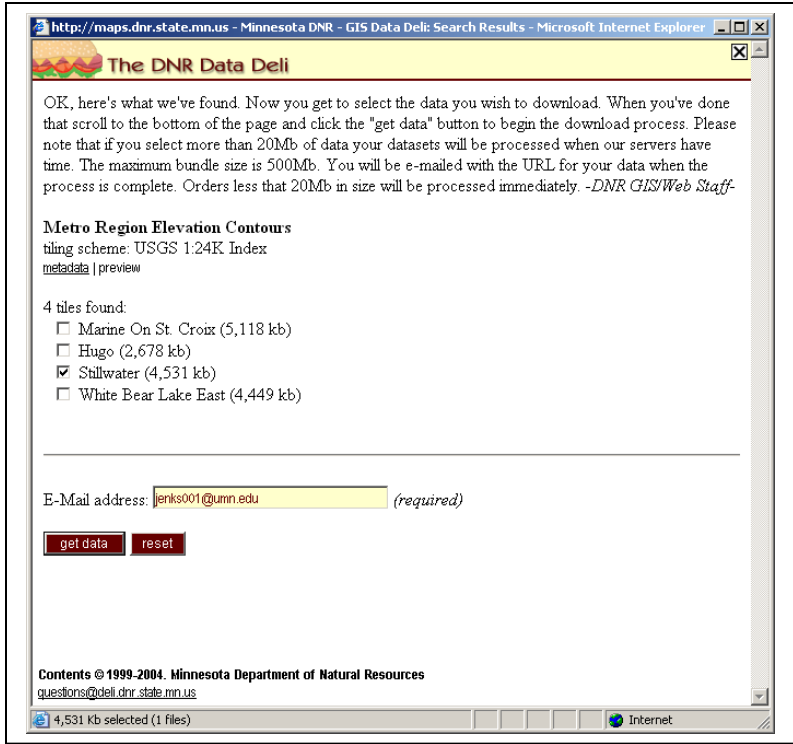


This is what you see next.

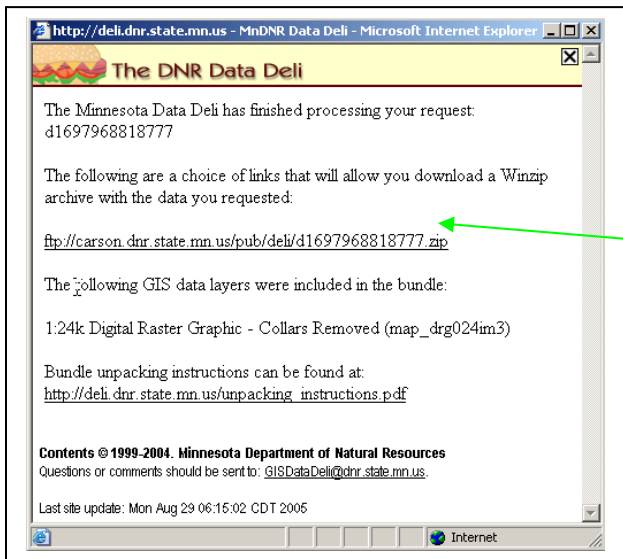
Use the Magnifying Glass to zoom "in" or "out" to a selected area for download.



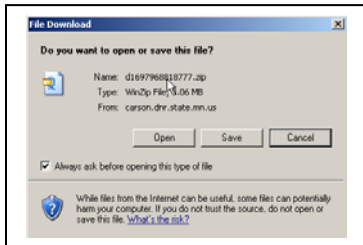
1st select an "Available Layer", that is the data you want to download, and then use the "empty white, find data box" to begin the download.



You will see download data screen. Check the boxes for the layers you want to download. Enter your email address and select GET DATA.

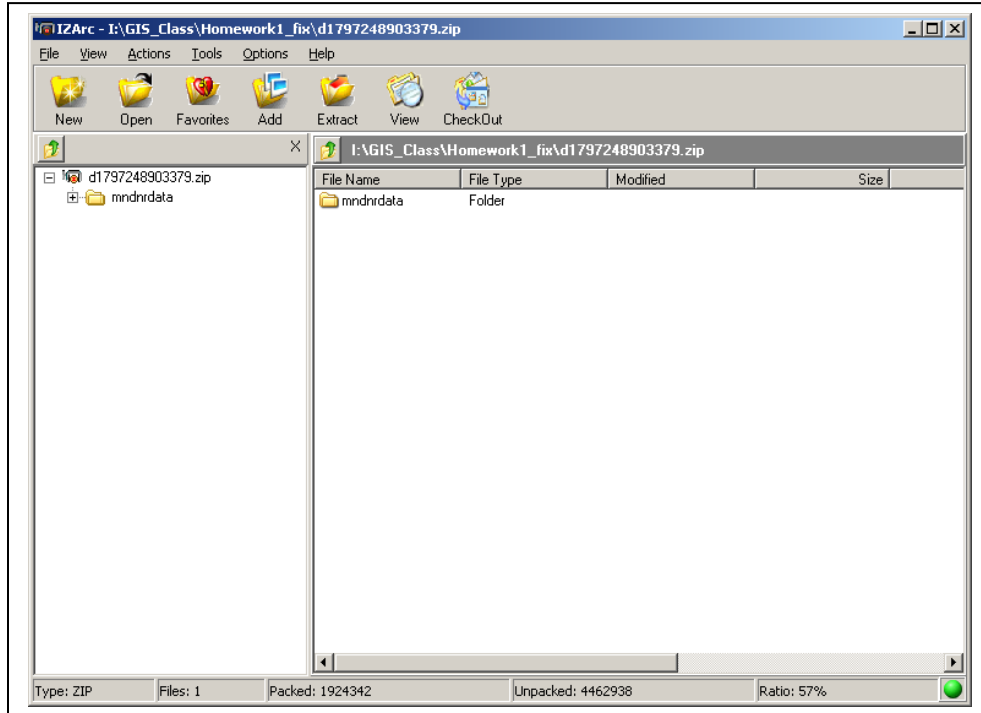


After a License Agreement Screen, you will see the "File Download" screen. Click on the link to begin the saving process



Save the file to your D:\ (remember where you put it)

Once the file is on your D:\, use Windows Explorer to find the file and double click on the .zip file to “uncompress” the data. The IZArc program will open, as shown below. Select extract and the file will be “uncompressed”.



The file(s) are placed in a subdirectory on your D:\(what ever subdirectory you chose) named “mndnrdata” . The data should be ready to open in ArcMap.

(Also see the instructions on the Data Deli Web site, Data Status Page or the file in the Homework 1 FR5131 directory named Unpacking Instructions.pdf.)

Repeat this process for all 3 (or more) of the data layers you want to use for the Homework 1 assignment.

All the DNR data is in UTM 15, NAD83 but sometime they do not have the projection information included with the data. You should check to see if all your layers have a Projection (NAD_1983_UTM_Zone_15N). If not ,use ArcToolbox →Data Management Tools→Projections and Transformations→Define Projection to create the necessary projection file. DO NOT REPROJECT the data, it is already projected correctly, it is just missing the definition file.

Finally

In ArcMap and create a map of your three or more layers.

Make sure to add Title, north arrow, legend, scale and your name.

Export Map to a .pdf or Print the Map to a .pdf and submit on WebVista.

