

# Cost Effective Digital Mapping Solutions

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## Exercise 1 - Geospatial data available for download on the MapPlace

1. In your browser address bar type in <http://www.mapplace.ca>
2. Double click on the **Geospatial Downloads** hyperlink in the left hand column
3. Scroll through the list of downloadable datasets. Note that data is available as ESRI shape files or in E00 format in either Geographic (Latitude & Longitude) or BC Albers projections.
4. Go to the top of the list and click on the **Geology Downloads 2005** hyperlink
5. Scroll down to the table of available downloads. Note the different datasets and projections available.
6. Scroll to the top of the page and click on the map image in the upper right corner. Note the tile numbering system. Click on one of the map tiles and read the information for that tile.

## Exercise 2 – Downloading data from the GEOBASE map site.

1. In your browser address bar type in <http://www.geobase.ca> Geobase is a Government of Canada website and is available in English or French. Select the language of your choice.
2. Explore the Geobase home page. Read about Geobase. Note that the datasets available for download are listed in the left hand column.
3. Click on the **Digital Elevation Data** hyperlink. Read about the Digital Elevation Data dataset. Note the availability of free viewers described at the bottom of the page.
4. Scroll to the top of the page and click on the **Find Data** icon. Click on the 1:50,000 scale map icon in the upper left corner of the page. Click on one of the BC NTS tiles e.g. 93E. What happens? Now select one or more of the 1:50,000 scale map tiles. Scroll down. Note that the tiles you selected have been added to the selection box.
5. Click the **Submit** button. View the list of tiles selected. Note that the data is in USGS compatible DEM format and in geographic projection. There are two ways to download data – http or ftp. If you click the http or ftp hyperlinks the download process will begin after you read and agree to the licensing agreement. When the File Download dialog appears hit **Cancel**. Do not start the download process.
6. Hit the browser back button until you are back at the Geobase home page.
7. Click on the **Landsat 7 Orthoimages and control points** hyperlink in the left hand column. Read about Landsat 7 orthoimages and control points.
8. Click on the **Landsat 7 Orthoimagery over Canada** hyperlink. Read about Landsat 7 orthoimagery over Canada.
9. Click on the **Find Data** icon. Click on the map image in the upper left corner of the page. Select one or more Landsat images by clicking on the green dots. These dots represent image centers. Note the overlap of the Landsat 7 images. Note that the images you selected are listed in the selection box.
10. Click on the **Submit** button. This will open up the download data page.
11. Accept the default settings and click on the **Submit** button.
12. On the Geoconnections Access Service page note the different options for area selection, band selection, projection, format, and compression. Note that to acquire the data you will need to give your e-mail address. Click on the **Place Order** button. A new window will open. Click on the **download** hyperlink. When the File Download dialog appears hit **Cancel**. Please do not start the download process.

### Exercise 3 – Cutting and Pasting from MapPlace into MS PowerPoint or Word

1. Start MapPlace by typing <http://www.mapplace.ca> into the browser address bar. Open the BCGS map and click the **Collapse Layers** button in the upper left corner.
2. Zoom into an area of interest. Make sure you are zoomed in below 1:100,000 scale.
3. Expand the **Mineral Titles Layers** group and turn on the **MTO Mineral Titles Online Labels** layer.
4. Expand the Topographic Layers group. Turn on some layers such as **Rivers 1:50K, Lakes 1:50K, Roads 1:20K, Contours Index 1:20K** etc.
5. Expand the **Grid Layers** group and turn on the **UTM Grid lines** layer
6. Expand the **BCGS Geology Layers 2005** group and turn on **Quaternary Geology, Bedrock geology - by age and rock class** and **Bedrock geology – map unit labels** layers
7. Copy the map to the clipboard by clicking the clipboard icon (leftmost icon at the top of the map window that looks like two offset pages with their upper right corners folded over)
8. Exit Mapplace and open MS Powerpoint
9. Open a new slide as a blank presentation with no text boxes
10. Click **Edit**, then **Paste** to copy the clipboard contents into the slide. You should now be able to see the map you created in MapPlace. Note: at this point if the map covers more area than you want you can crop it. Select the cropping tool from the bottom toolbar and change the extent of the map accordingly.
11. Select the map, right click, select **Grouping**, then **Ungroup**. A message will come up that says “This is an imported picture, not a group. Do you want to convert it to a Microsoft Office drawing object?”. Click **Yes**. Note: you may have to repeat this process to get all of the objects ungrouped.
12. Try recolouring polygons, adding text with white background boxes, arrows pointing to map features etc. Create a scale bar by drawing a rectangle based on the UTM grid lines. These lines are 1000 metres apart.
13. Try the same exercise using Microsoft Word. Note: Word does not have the same functionality as Powerpoint and works a bit differently in some cases. However, you can still make a pretty good map. When using Word make sure the Drawing toolbar is on. Go to **View, Toolbars** and select **Drawing**. The drawing tools should appear along the bottom bar. Note that the tools are the same as those used in Powerpoint.

### Exercise 4 – Introduction to Arc Explorer

1. In your browser address bar type in the following address:  
<http://www.esri.com/software/arcexplorer/index.html>
2. Read about ArcExplorer. Note the **Download ArcExplorer** hyperlink in the left hand column.

### Exercise 5 – Introduction to Manifold 6.0 GIS

1. In your browser address bar type in <http://www.manifold.net/>
2. Read about Manifold 6.0. Note: Manifold Professional sells for an incredible \$245 US!