Downloading Census Boundary Files Using Scholars GeoPortal Map and Data Library, winter 2013

This exercise will showcase how to extract Census Tract (CT) census geography for the Census Metropolitan Area (CMA) of Montreal using two methods, 1) quering the attribute table of the dataset, or 2) downloading based on a predefined census boundary (ex. CMAs). We will use the Scholars GeoPortal to download boundary files in .shp file format.

I. Searching for census boundary files, go to http://geo.scholarsportal.info

A. Use the main search box to search for census tract boundary files, search by phrase, keyword, title, and more;

➢ Search for the phrase "Census Tracts 2011", go **Search**
➢ As you browse over search results, you will notice a grey boundary appear on the map – this represents the geographic coverage of the dataset.

B. What is the difference between Cartographic Boundary Files and Digital Boundary Files?

➢ Both are produced by Statistics Canada for the purposes of mapping the Census Geography (Census every 5 years)
➢ Cartographic boundary files depict the geographical areas using only the major land mass of Canada and its coastal islands. These files are good for creating thematic and clorpleth maps.
➢ Digital boundary files depict the full extent of the geographical areas, including coastal water areas and boundaries.

C. Let's choose to work with the Census Tracts, Cartographic Boundary File, 2011 Census

➢ Click on **Details** to view more information about this dataset
➢ To add the data onto the map, click **Add**

II. Option 1: Quering and filtering data for export

A. After you've added data to the map, you can open the underlying data table (attribute table)

➢ To access the data table, click on the collapsed navigation button that appears in the top right corner of the window

➢ Open the data table feature, and scroll through the table to view features using the blue arrows
➢ Clicking on a feature in the table will highlight the feature on the map
➢ Note: to close the table click on the X at anytime

B. You can query data to filter out results based on certain fields contained in the data; for example we want to filter out Census Tracts in the greater Montreal area using the CMAUID code '462' – Montreal

  ➢ Go to **Query**, this will open the query input window
  ➢ Double-click on the **CMAUID** field
  ➢ Choose the equals sign **=** , and write the code **'462'** using parentheses (ex. CMAUID = '462')
  ➢ Click **Execute** to run the query and filter out results

C. Export your data to a .shp file for reuse in ArcGIS (ArcMap)

  ➢ Go to **Export** on the data table tab, choose the **.shp** file format
  ➢ Your export will run and appear in the **Download** tab on the main page of the portal; or you can click the **"Your file is available here"** statement (from the data table view) which appears after the file has processed
  ➢ Click on the file (ex. **DLI_2006_Census_CBF_Eng_Nat_ct.zip**) to download and save to your local computer (be sure to extract the .zip folder in the same location)

III. Option 2: Download data by a pre-defined census boundary (ex. Census Metropolitan Areas, CMAs)

A. Start by clicking on the **Download** tab (located top right, along the main user bar)

  1. You may download your data using a variety of methods:
     a) Download all the data at once (typically a very large .zip file);
     b) Download based on a pre-defined area such as Province or Territory, and;
     c) Download based on your own defined area, using the drawing tools to draw an area on the map.

B. Let's download data by using the pre-defined option, selecting to download by Census Metropolitan Area (CMAs)

  1. From the Download tab,
     ➢ Choose to download 'By Area of Interest'
     ➢ Click 'Select a predefined area'
     ➢ Select Area Type: **Census Metropolitan Areas (CMAs)** from drop down list

  2. Choose your CMA location by clicking on the map
     ➢ On the map, click on the area of Montreal, QC – this will highlight after you click

C. Choose your file output options and download
- ➤ Choose file output to be **Shapefile - .shp** file format
- ➤ Keep the output coordinate system as **Same as Input** (this defines the spatial reference system used to display your data)
- ➤ Submit your **Download** *(note: this can take anywhere from a few seconds to a couple minutes depending on the size of your data download, be patient)

D. Save your data file (.zip) to your local computer
- ➤ Click on the file (ex. **DLI_2006_Census_CBF_Eng_Nat_ct.zip**) to download and save to your local computer
- ➤ Be sure to extract the .zip folder in the same location

E. Open the file in ArcMap and inspect the Data Table
- ➤ Open the ArcMap program, choose File > Add Data > browse to the location of your unzipped shapefile (.shp) > Add
- ➤ Right click on your data layer > Open Attribute Table > inspect your data table for CMA codes/names
- ➤ Save your data!

The End!