

## Maps & Geospatial Data - Queen's University Library

### Extract PCensus v.10 census data for use in ArcMap 10.x

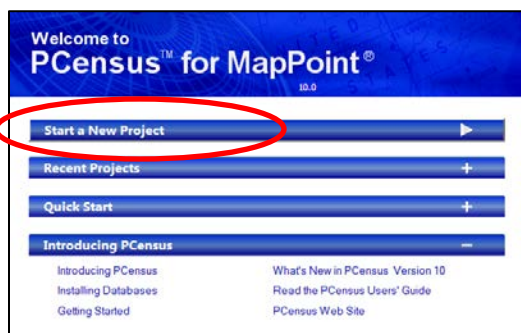
Example. 2011 Kingston Census Metropolitan Area (CMA) by Dissemination Areas (DA)

- choose Kingston CMA
- define a 'pointfile' specifying DAs (a pointfile is a PCensus database containing geographically referenced data)
- extract tabular data to use in GIS software

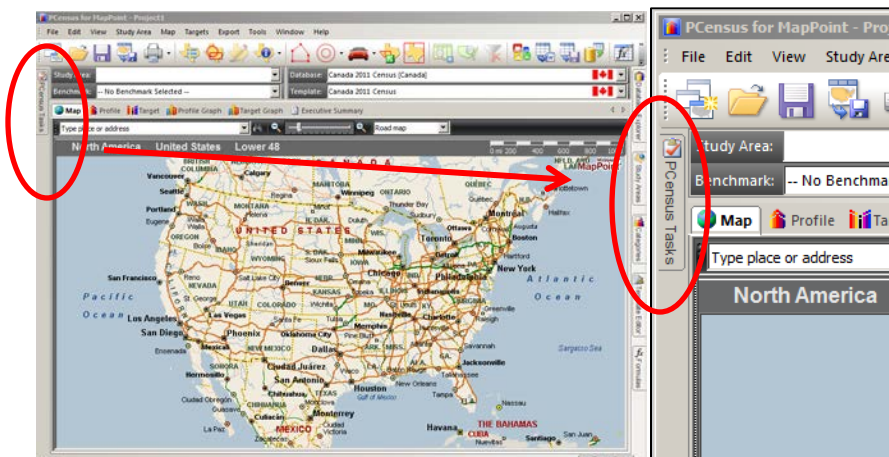
Open **PCensus** (with or without MapPoint).

- Login to the Library computer using your Queen's University NetId.
- The desktop folder **Humanities & Social Science Research Databases** contains PCensus software and data.
- Open **PCensus for MapPoint**.

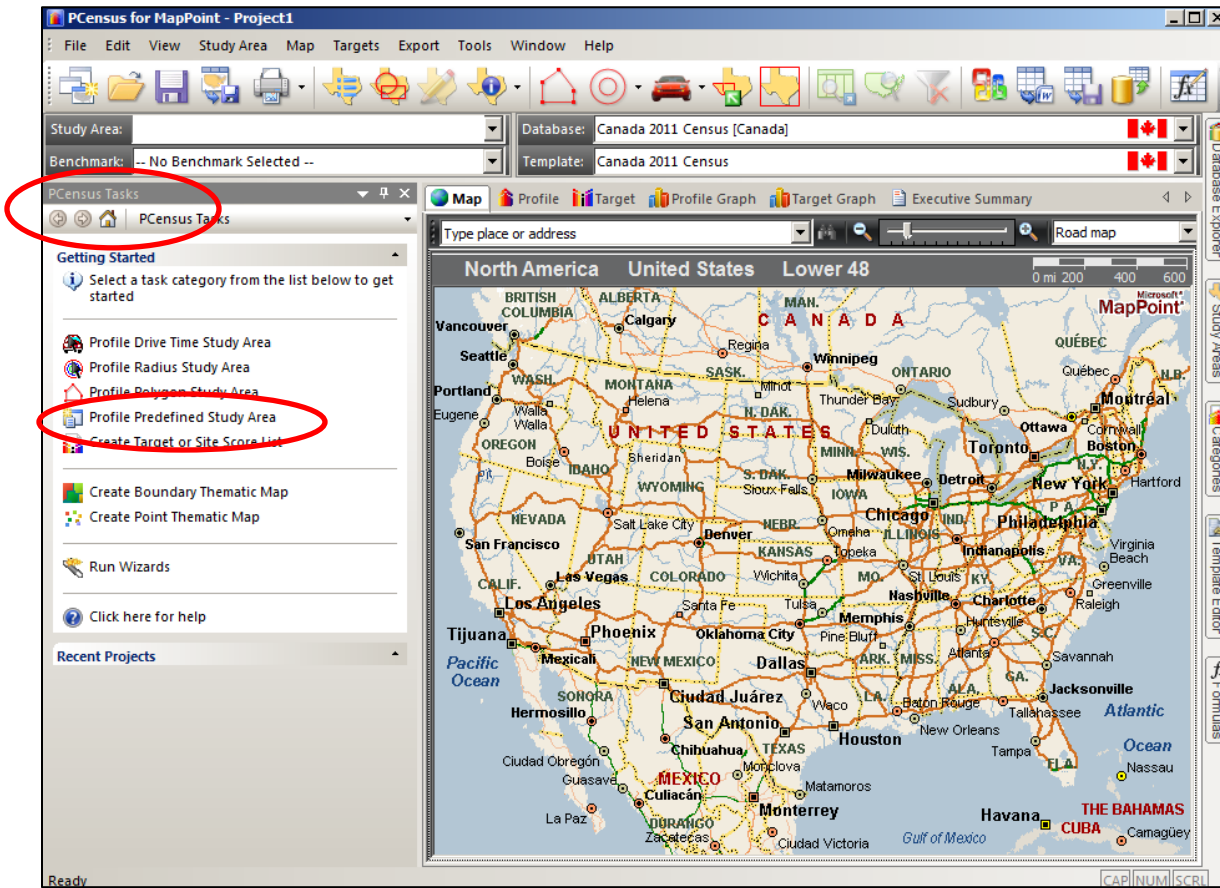
At the Welcome screen **Start a New Project**.



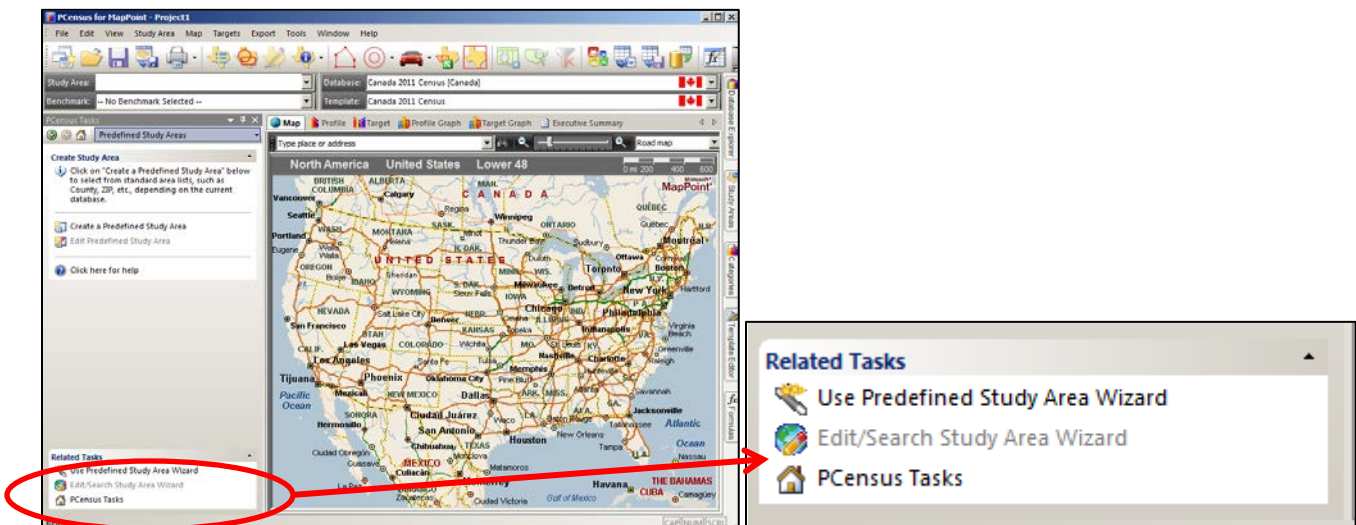
This screen may open. Make sure that the **PCensus Tasks** tab is open and pinned.



When the screen looks like this ...choose **Profile Predefined Study Area**.

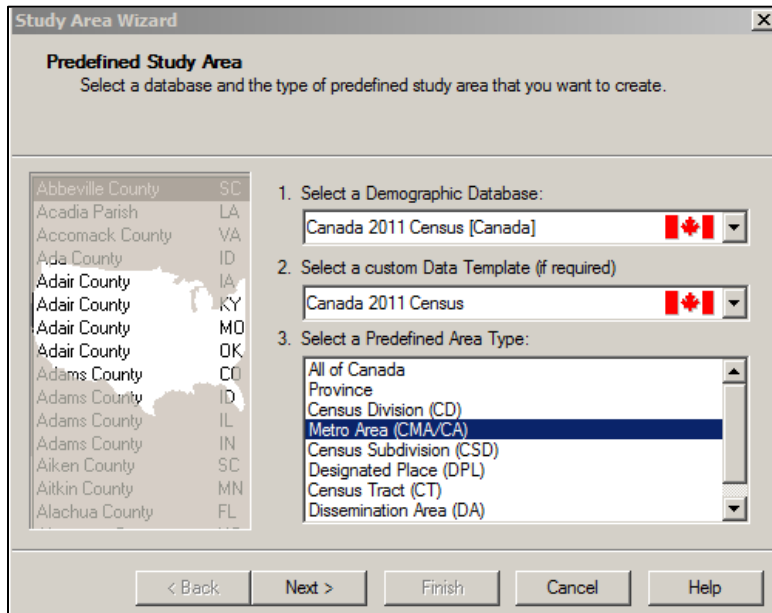


Then, select **Predefined Study Area Wizard**. The **Study Area Wizard** will open.

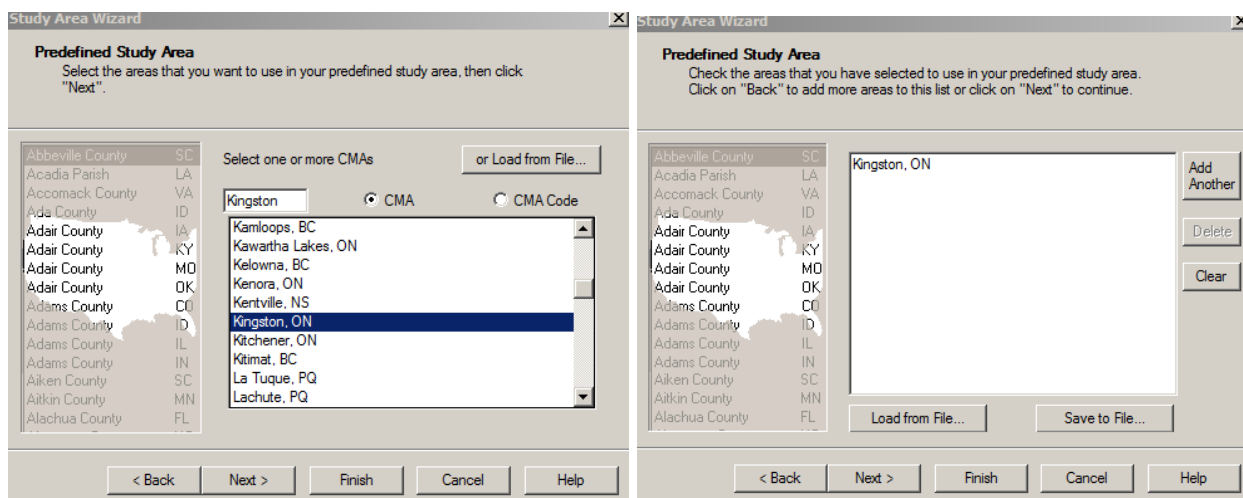


In the **Study Area Wizard**, you may need to change the database to the one that you want. In this example, the *Canada 2011 Census Demographic Database and Data Template* are selected. Notice that PCensus has Canadian Census data back to 1981. It is important to use statistical and spatial data from same year and at the same level of Census Geography.

Choose *Metro Area (CMA / CA)* as the *first* level of geography. (You will be able to select the smaller DAs later in the process.) For a good introduction to Census geography see the [Illustrated Glossary](#) from Statistics Canada.

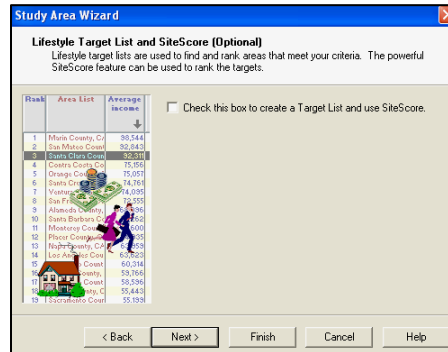


Navigate to Kingston, ON. Click Next and Next.

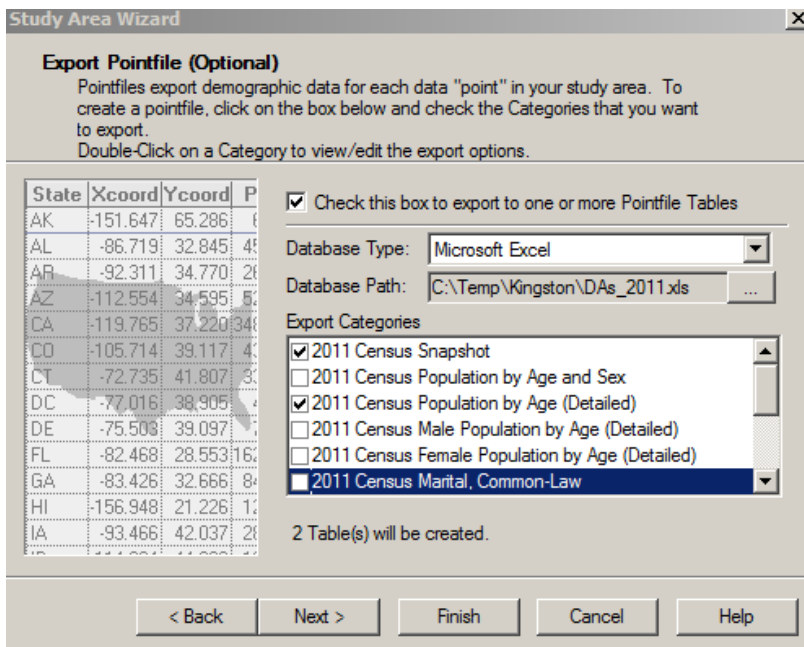




Pass by the **Thematic Map** and **Lifestyle Target List and Site Score** options by clicking Next and Next.



Choose the **Export Pointfile** option. Select a path and file format for your data download.

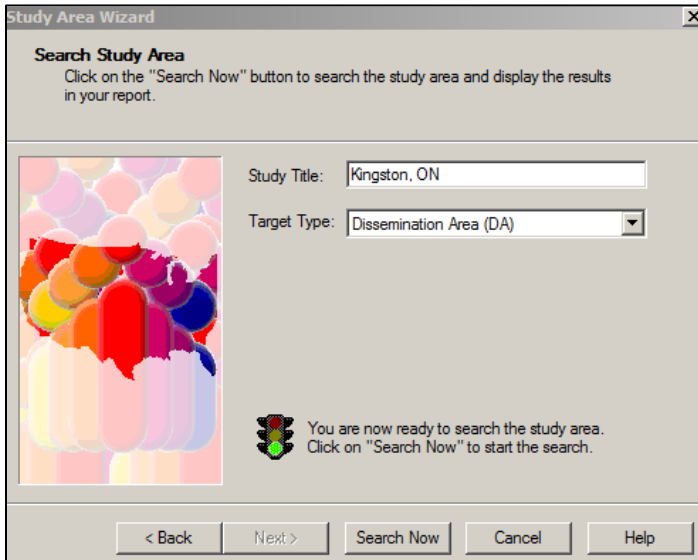


In this example, Database Type **Microsoft Excel** is selected.

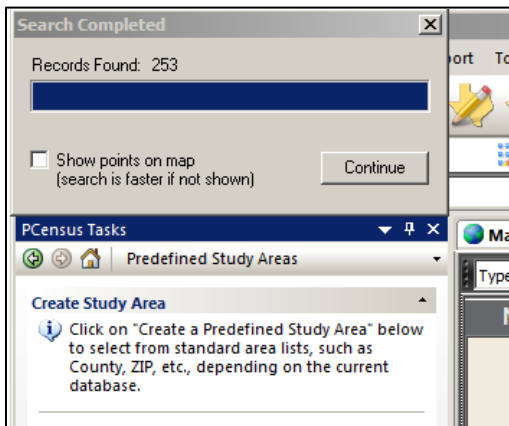
It is helpful to define where you want the downloaded data to go. In this example, the data will go to **c:\temp\Kingston**. Then select **Export Categories** – you can select more than one.

In the Search Study Area dialogue box, choose **Target Type** as the level of Geography that is wanted. For instance, choose *Dissemination Area* in order to extract data for the *entire Kingston CMA at the DA level of Census Geography*. Give your Study a meaningful title.

Click **Search Now**.



The Search will run and you can show points on the map, or not. Click **Continue**.





An **Export Log File.txt** metadata report called Study Area Export Information pops up when the searching is completed. Another copy of the report will be in the destination file for the data – for instance, in **c:\temp\Kingston**. This report describes the exported data and is useful for deciphering obscure abbreviations, source database, and so on. The report is automatically named **Export Log File.txt** but you can rename it.

```
Study Area Export Information
=====

This file contains a description of data exported from PCensus for MapPoint on
Thursday, January 03, 2013 11:33

Study Area
=====
Study Title:          Kingston, ON
Area Type:           Metro Area (CMA/CA)
Geographic Bounds:  (-76.8354, 44.1538) to (-76.2752, 44.6528) 27.8 mi by 34.5
mi

Source Database
=====
Name:                Canada 2011 Census [Canada]
Source:              Canada 2011 Census [Canada]
Search Summary Level: Dissemination Area (DA)
# of Data Points:    255

Exported Data
=====
Database Type:       Microsoft Excel
Database File:       C:\Temp\Kingston\Census_snapshot_DA_2011.xls

Data Template:       Canada 2011 Census
# of Data Categories: 1
# of Created Tables: 1

Data Category List:
                    1. 2011 Census Snapshot

Table List:
                    1. 2011 Census Snapshot

2011 Census Snapshot
=====
Data Category: 2011 Census Snapshot
1 AREA_NAME
2 CODE
3 XCOORD
4 YCOORD
5 Total Population
6 Total Population: Males
7 Total Population: Females
8 2011 Population by Age: 0 to 4 years
9 2011 Population by Age: 5 to 9 years
10 2011 Population by Age: 10 to 14 years
11 2011 Population by Age: 15 to 19 years
12 2011 Population by Age: 20 to 24 years
13 2011 Population by Age: 25 to 29 years
14 2011 Population by Age: 30 to 34 years
15 2011 Population by Age: 35 to 39 years
16 2011 Population by Age: 40 to 44 years
17 2011 Population by Age: 45 to 49 years
```

In the destination directory, you will see the Export Log File and database files for each Export Category in the file type selected earlier.

Name ^	Date modified	Type	Size
Census_snapshot_DA_2011.txt	03/01/2013 11:33 AM	Text Document	3 KB
CENSUS_SNAPSHOT_DA_2011.XLS	03/01/2013 11:33 AM	Microsoft Excel 97-...	119 KB

AREA_NA_CODE	XCOORD	YCOORD	Total Popu	Total Popu	Total Popu	2011 Popu	2011 Popu	2011 Popu	2011 Popu	2011 Popu	2011 Popu	2011 Popu	2011 Popu	2011 Popu	2011 P
35100193	35100193	-76.4884	44.23106	425	195	230	5	10	10	30	135	45			
35100194	35100194	-76.4838	44.22958	535	250	285	15	0	5	5	145	120			
35100195	35100195	-76.4819	44.22652	1130	500	630	10	5	0	20	75	140			
35100196	35100196	-76.4842	44.22573	470	205	265	0	5	0	15	70	65			
35100197	35100197	-76.4866	44.22439	410	160	250	10	5	5	20	60	55			
35100198	35100198	-76.4876	44.22829	480	215	265	20	20	15	30	70	65			
35100170	35100170	-76.495	44.22853	380	200	180	0	5	5	45	215	30			

At this point, the Census data file is almost ready to import into ArcMap and be joined with Dissemination Area geographic shape files in order to prepare thematic census maps.

Jumping ahead a bit -- you will need to choose a field in the Census data file to 'join' with an identical field in the DA geographic file. DAUID and CODE are good choices.

35100194		-76.4838500	44.2294600	465
35100195		-76.4817900	44.2275600	525
35100196		-76.4844000	44.2257300	495
35100197		-76.4866000	44.2243900	410
35100198		-76.4875600	44.2283400	500

It is important that *both* fields be formatted exactly the same, either as text or as numeric data. They can appear identical but not be. Consult Excel Help topic "Convert numbers stored as text to numbers" for methods to solve this problem.

2006 Census Census Snapshot.dbf - Microsoft Excel

AREA_NAME	CODE	XCOORD	YCOORD	TOTPOP	MALES	FEMALES	POPAGE0004	POPAGE0519
35100193	35100193	-76.4883200	44.2311000	420	200	220	5	25
35100194	35100194	-76.4838500	44.2294600	465	235	230	5	15
35100195	35100195	-76.4817900	44.2275600	525	210	315	0	15
35100196	35100196	-76.4844000	44.2257300	495	200	295	0	30
35100197	35100197	-76.4875600	44.2283400	500	235	265	15	50
35100170	35100170	-76.4953800	44.2284600	335	175	160	0	55
35100171	35100171	-76.4933200	44.2319800	450	220	230	5	40
35100189	35100189	-76.4981800	44.2327000	475	235	240	10	60
35100162	35100162	-76.5100100	44.2229100	295	145	150	5	55
35100163	35100163	-76.5072800	44.2225800	415	190	225	20	60
35100164	35100164	-76.5112400	44.2283400	375	185	190	20	60
35100166	35100166	-76.5074800	44.2292100	360	165	195	15	100
35100167	35100167	-76.5054300	44.2269600	585	275	310	35	115
35100168	35100168	-76.5032000	44.2304700	385	175	210	20	105
35100169	35100169	-76.5023400	44.2247500	455	210	245	10	100
35100154	35100154	-76.5203200	44.2289200	455	215	240	15	60
35100155	35100155	-76.5237100	44.2261900	435	225	210	20	95
35100157	35100157	-76.5239400	44.2183200	560	260	300	15	55
35100158	35100158	-76.5200100	44.2239600	375	175	200	15	50
35100159	35100159	-76.5180200	44.2209300	360	180	180	5	40
35100165	35100165	-76.5157500	44.2267400	560	270	290	30	85
35100065	35100065	-76.5310100	44.2371700	890	445	445	40	180
35100148	35100148	-76.5372600	44.2371900	785	355	430	35	100
35100149	35100149	-76.5338400	44.2362500	615	270	345	45	105
35100151	35100151	-76.5298900	44.2320200	655	300	355	40	75
35100156	35100156	-76.5279700	44.2254500	875	380	495	55	210
35100243	35100243	-76.5355700	44.2313700	1020	465	555	45	150
35100244	35100244	-76.5330200	44.2181800	550	235	315	0	20
35100058	35100058	-76.5188200	44.2333700	655	295	360	35	140
35100059	35100059	-76.5163200	44.2354400	715	345	370	105	90
35100060	35100060	-76.5158000	44.2379300	555	225	330	15	35
35100064	35100064	-76.5249800	44.2388800	800	335	465	25	60
35100152	35100152	-76.5256400	44.2322700	465	225	240	20	90
35100153	35100153	-76.5220200	44.2332800	475	220	255	15	75
35100053	35100053	-76.5068800	44.2382500	610	285	325	10	60
35100054	35100054	-76.5076000	44.2364800	450	210	240	15	70

## Reference documents

### 2011 Census Reference Materials (includes questionnaires)

- <http://www12.statcan.gc.ca/census-recensement/2011/ref/index-eng.cfm>