

## GEOG 204 - Tutorial 1

### Working with GIS data files

Objective:

Use QGIS software to

- Open GIS data files
- Create a GIS project file
- Convert GIS data from one file format to another

At the end of the tutorial should know how to work with a shapefile and a QGIS project file.

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GIS data are stored and distributed as files. There are many GIS file formats and not all will be compatible with the GIS software you have access to.

Some of the common GIS file formats

Vector data file formats

- Shapefile
- Geojson
- GML
- KML

Raster data file formats

- IMG
- RST
- GeoTiff

For this tutorial, we will work with the shapefile. We will talk about the other file formats in due course. A shapefile is actually a collection of multiple files. At least three of these are essential, namely: .shp, .dbf, .shx. The NRC\_ROADS\_1M\_SP folder has one shapefile.

Tasks:

1. Open QGIS and add the GIS data in the tutorial folder  
The data represent the current BC wildfire perimeters as well as point locations. Other data are for the provincial boundaries and the road network.
2. Try out these tools: Pan Map, Zoom in Zoom Out
3. Turn on and Off the layers
4. Change the colors of your features to show clear contrast between the layers
5. Using the fire perimeter data set what is the closest fire to the city of Prince George?  
This is a rough estimate, use the Measure tool.
6. Export the Provincial Boundary layer as a GeoJSON
7. Save your work in a QGIS project file (.QGZ). Close the application and make sure you can open the .qgz file.
8. Start a new QGIS project. Add the GeoJSON file you created in step 6 above
9. **Show me your work before you leave.**