

GEOG 5201 Geovisualization

Lab 7: Map Animation (Vector)

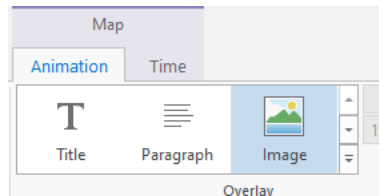
Part 1: Guided Exercise

The objective of this exercise is to create an animated choropleth map to visualize changes in international tourism in New Zealand over the past 20 years—changes that have major business implications for the country. Specifically, you will create an animated GIF, one of the simplest forms of animation that can be used with maps or other geovisualizations.

Activities

Complete tutorial: [Visualize temporal data](#). You will visualize changes in international tourism in New Zealand over the past 20 years.

- You do NOT have to do any of the following within the instruction: *Visualize trends with a line chart* and *Modify chart properties*
- Capture the legend of 'ChinesePercentage' in the Contents pane, and add it as an image to the animation



- Export your output to a GIF file. Do NOT export it to *.avi or *.mp4 file.

Assignment

Note: Submit your responses to the following questions on the course website. Be sure to have all your answers and file(s) ready before starting your submission. You are allowed only one attempt to submit your responses.

1. (5 pts) What spatial patterns do you notice through your animation?
2. (5 pts) Upload your animated GIF showing the changes in international tourism in New Zealand over the past 20 years.

Part 2: Unguided Exercise

In this exercise, you will create an animated GIF showing features that change over time, using VECTOR data that is of interest to you. It will be helpful to review the tips for creating effective animations that you learned in the lecture on map animation.

Activities

Create an animated GIF showing features that change over time using vector data (NOT raster data).

- Make sure your animation shows a very clear, distinct pattern of change

- Make sure your animation does not overwhelm the user with too many changing features
- Include a legend in your animation

Tips

Your table data must be like the below in order to implement the same method (Transpose Fields tool) as in the guided exercise. You might have GEOID instead of the city name for the column name. Otherwise, state-level national data might be easy to handle. You know their names and locations, and there are just 50 objects!

	Area1	Area2	Area3	...
Year1				
Year2				
Year3				
...				

Otherwise, you can create a table that stores a row for each of the unique combinations of year and area. In this case, you don't need to transpose table fields. Go convert time values to date format and join the table to the layer!

ID	Area	Year	Value
1	Area1	Year1	
2	Area1	Year2	
3	Area1	Year3	
...	
...	Area4	Year1	
...	Area4	Year2	
...	Area4	Year3	
...	

Assignment

Note: Submit your responses to the following questions on the course website. Be sure to have all your answers and file(s) ready before starting your submission. You are allowed only one attempt to submit your responses.

1. (5 pts) Describe the following items in 200 words: your data source, how you create the animation, and your findings from the animation.
2. (5 pts) Upload your animated GIF here.