



# Section: Vector Analysis

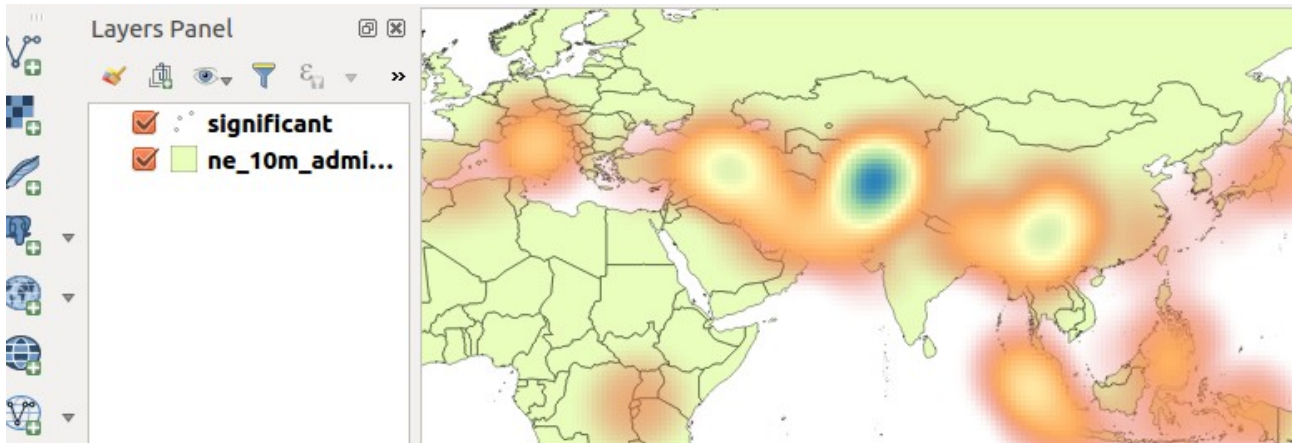
Module : Symbology: Heatmaps



## Heat maps in Context

“Heat map visualizes hotspots in the distribution of features on the map i.e. dense areas will be highlighted in a heat map, based on the parameters you use for processing it”

In this module we explore heat maps as a point symbolisation technique.



### You try:

**Goal:** To learn creating heat map as a symbolisation technique

**Data:** appendix3-local-data/earthquake.csv  
and ne\_10m\_admin\_0\_countries from natural earth

- \* Load the earthquake layer as a spatial layer.
- \* Load the ne\_10m\_admin layer
- \* Change the country layer transparency as specified
- \* Change the layer order to put the point layer on top
- \* Open the properties of the point layer and click the style tab.
- \* Change to the specified render type
- \* Choose the specified colour ramp
- \* Apply the changes and observe the map
- \* why does the whole map colour change ?
- \* Edit the colour ramp. Make colour 1 transparent.
- \* Apply the changes and observe.
- \* Open the properties of the point layer and change rendering quality to fastest. Observe the changes.
- \* Change the weight points by option to use the specified attribute.

NB: What can you infer about the intensity of the heat map in relation to deaths?

Name	Value
Render	Heat map
Country transparency	70
Colour ramp	Spectral
Attribute	Deaths



## More about

Heat maps use colour to communicate relationships between data values that would be difficult to understand if presented numerically in a spreadsheet or attribute table. A colour ramp helps to visualise a heat map with low values having colours at the bottom of the colour ramp and high intensity values corresponding to darker values on the colour ramp.



## Check your knowledge:

**1. When would it be useful to use a colour ramp:**

- a) To depict how a player was behaving during a soccer match.
- b) To show that the layer being represented is a vector layer.
- c) Heat maps can also be applied to raster data.

**2. Which statement is false:**

- a) A colour ramp is used to show variation in a phenomena of interest
- b) Heat maps are extensively used by scientist
- c) Heat map points can be weighted by a discrete column.

**3. A colour ramp is a type of vector analysis:**

- True
- False

Answers: 1a 2c, 3f



## Further reading:

[http://docs.qgis.org/2.14/en/docs/user\\_manual/plugins/plugins\\_heatmap.html](http://docs.qgis.org/2.14/en/docs/user_manual/plugins/plugins_heatmap.html)  
<http://grindgis.com/software/heat-map-using-qgis>