

Creating Heatmaps

QGIS Tutorials and Tips



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Translations by

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The screenshot shows the QGIS 2.0.1-Dufour application window. The 'Layer' menu is open, and the option 'Add Delimited Text Layer...' is highlighted by the mouse. The menu also includes options like 'New', 'Embed Layers and Groups...', 'Add Vector Layer...', 'Add Raster Layer...', 'Add PostGIS Layers...', 'Add Spatialite Layer...', 'Add MSSQL Spatial Layer...', 'Add Oracle Spatial Layer...', 'Add WMS/WMTS Layer...', 'Add WCS Layer...', 'Add WFS Layer...', 'Copy style', 'Paste style', 'Open Attribute Table', 'Toggle Editing', 'Save Layer Edits', 'Current Edits', 'Save As...', 'Save Selection as Vector File...', 'Remove Layer(s)', 'Duplicate Layer(s)', 'Set CRS of Layer(s)', 'Set Project CRS from Layer', and 'Properties...'. The main map area is empty, and the status bar at the bottom shows coordinates (-831, -1.294), a scale of 1:2072162, and the EPSG:4326 projection.

2. `police-uk-crime-data-surrey.txt` `:``guilabel:``CSV`
`(comma separated values)` `*Easting*` `*Northing*` `X` `Y`
`:``guilabel:``Use spatial index` `OK`.

Create a Layer from a Delimited Text File

File Name: `C:/Users/ujaval/Downloads/police-uk-crime-data-surrey/police-uk-crime-data-surrey.txt` `Browse...`

Layer name: `police-uk-crime-data-surrey` Encoding: `UTF-8`

File format: ☒ `CSV (comma separated values)` ☐ `Custom delimiters` ☐ `Regular expression delimiter`

Record options: Number of header lines to discard: `0` ☒ `First record has field names`

Field options: ☐ `Trim fields` ☐ `Discard empty fields` ☐ `Decimal separator is comma`

Geometry definition: ☒ `Point coordinates` ☐ `Well known text (WKT)` ☐ `No geometry (attribute only table)`

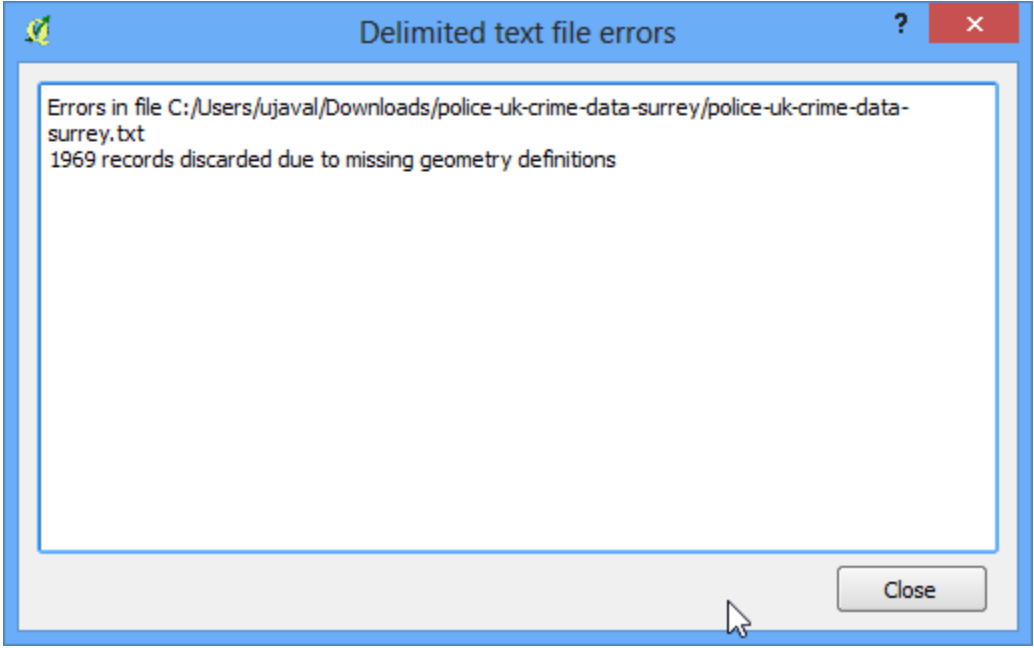
X field: `Easting` Y field: `Northing` ☐ `DMS coordinates`

Layer settings: ☒ `Use spatial index` ☐ `Use subset index` ☐ `Watch file`

	ID	Month	Reported by	Falls within	Easting	Northing	Location	Crime type	Conte...
1	480097	2010-12	Surrey Police	Surrey Police	532773.00	156680.00	On or near Addison Road	Burglary	
2	480098	2010-12	Surrey Police	Surrey Police	498361.00	149806.00	On or near The Oval	Burglary	
3	480099	2010-12	Surrey Police	Surrey Police	498205.00	165251.00	On or near Albury Close	Burglary	
4	480100	2010-12	Surrey Police	Surrey Police	507437.00	174069.00	On or near Sanctuary Road	Burglary	
5	480101	2010-12	Surrey Police	Surrey Police	498205.00	165251.00	On or near Albury Close	Burglary	

`OK` `Cancel` `Help`

3. `:``guilabel:``Close`.



4. , `Coordinate Reference System (CRS)` . British National Grid . CRS :guilabel:`OSGB 1936 / British National Grid` . :guilabel:`OK` .



5. □□ QGIS □ □□□ □□□□□□ □□ □ □□□□.



6. The map shows the distribution of crime data points across the UK. The points are concentrated in the southern and central regions, indicating a higher density of crime in these areas. The map also shows the coastline and major cities, providing a geographical context for the crime data.



7. To create the heatmap, you need to enable a core plugin named *Heatmap*. See [□□□□](#) [□□□□](#) to know how to enable built-in plugins. Once you have enabled the plugin, go to Raster › Heatmap › Heatmap.

Warning

The Heatmap plugin has a bug in QGIS 2.8.1. See [this post](#) for workarounds.



8. `Heatmap Plugin` `Output raster` `crime_heatmap` `Radius` `1000` `heat` `Advanced` `X` `Cell Size` `Y` `100` `OK`



9. □□ □□□ □□□□ □□□□ □□ □□□□ □□ □ □□□□.



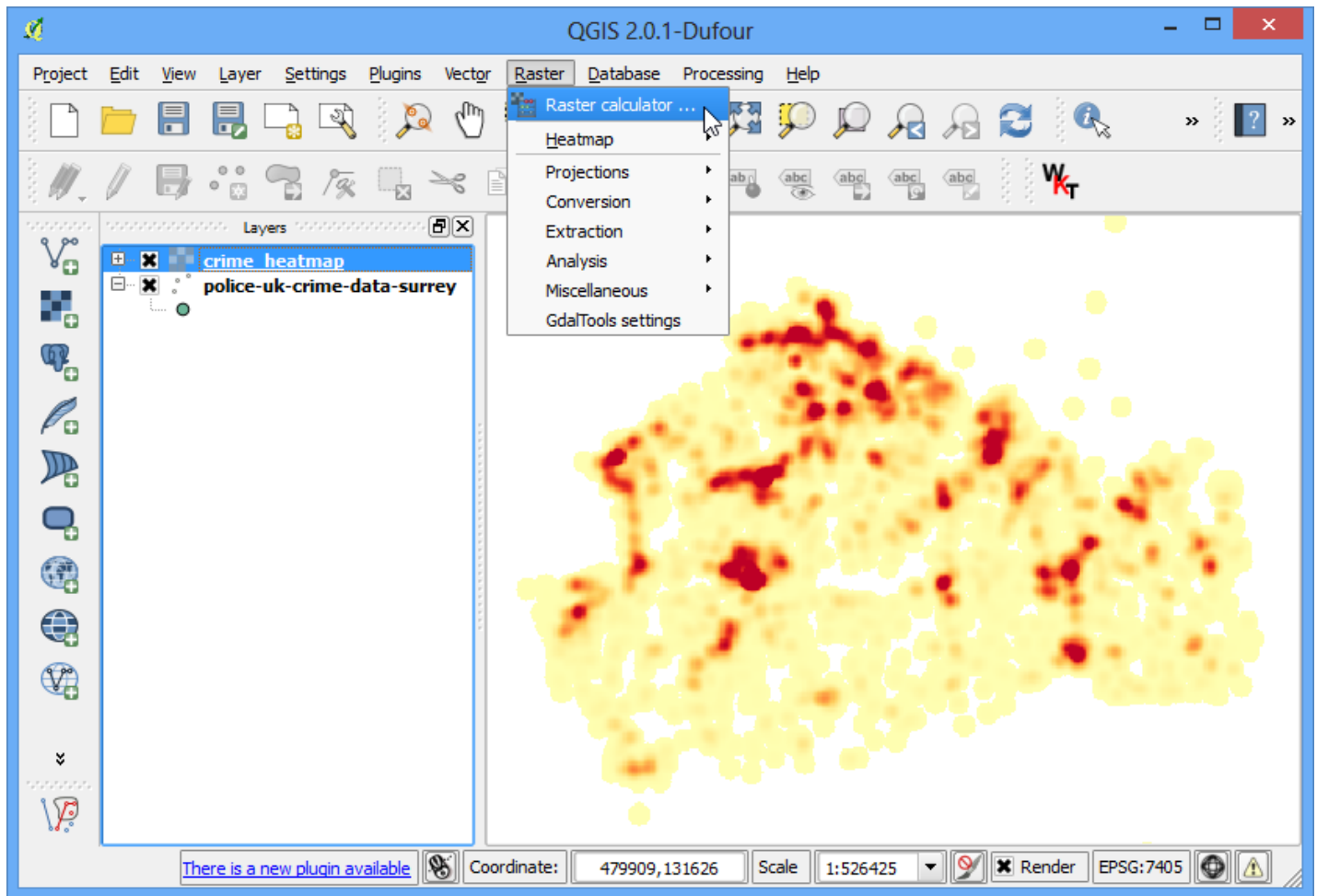
10. `guiabel: Properties`



11. `Style` `Render type` `Singleband pseudocolor` `Load min/max values` `Accuracy` `Actual (slower)` `Load` `Generate new color map` `YlOrRd (Yellow-Orange-Red)` `Classify` `OK`



13. □□ □□□□ □□□□□□. □□□ □□□ □□□ □□□□□. □□□ □□□ □ □□□ □□□□□□ □□□□ □□□□. □□□ □□ □□ □□□ □ □ **hotspots** □ □□□□□ □□□□. □ □□□□ □□□ **hotspots** □ □□□□□ □□□□□. □□ □□□ --> □□□ □□□ :menuselection: Raster --> Raster Calculator` □ □□□□.



14. `crime_hotspots` Raster calculator `crime_hotspots` `crime_heatmap@1` `"crime_heatmap@1" > 5` `Add result to project` `OK`



16. `crime_hotspots_vector`` `crime_hotspots_vector.shp`. `Field name`` `DN` `Load into canvas when finished`` `OK`` `crime_hotspots_vector.shp`.



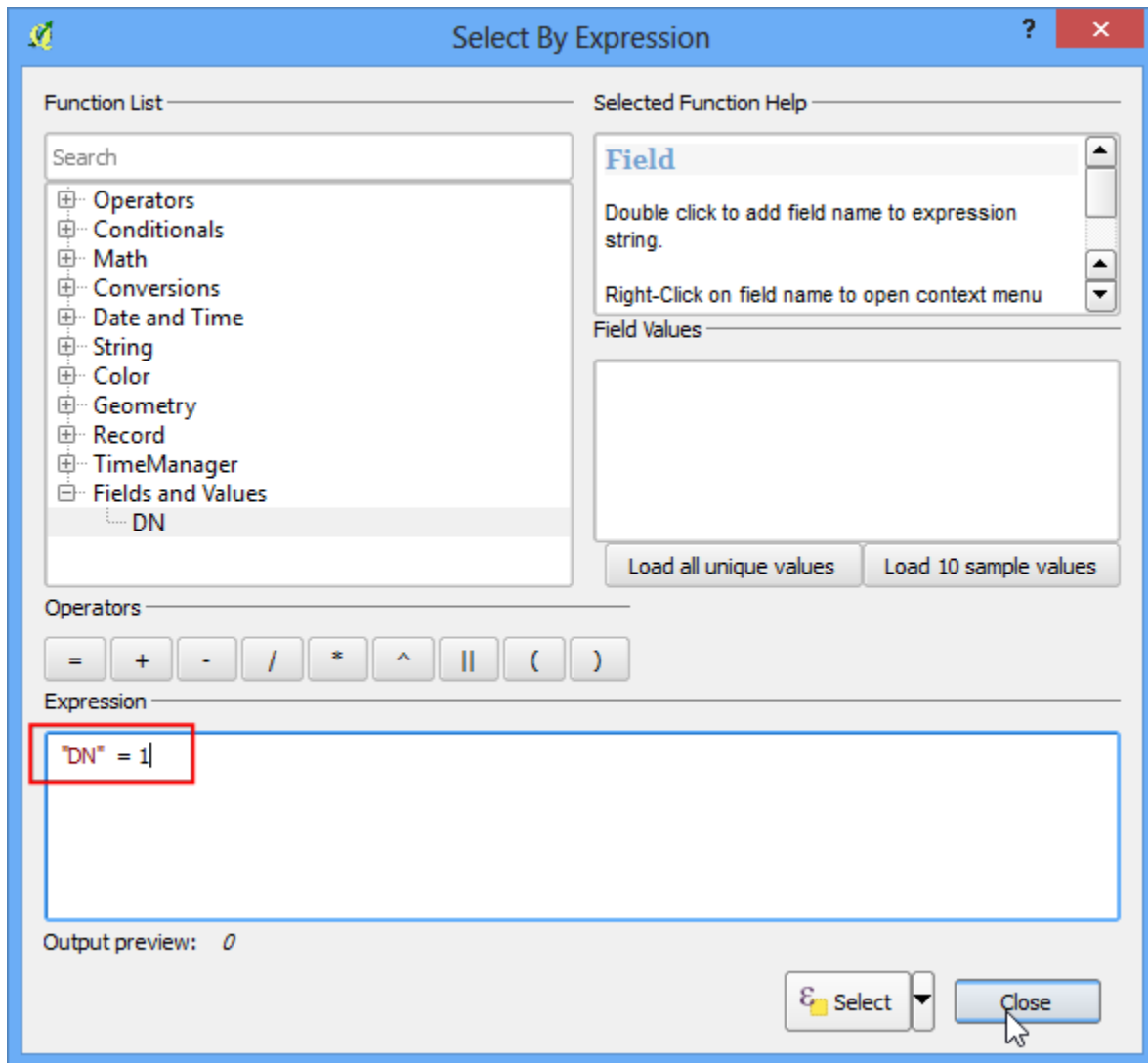
17. □□ □□ □□□□ □ □□ □□□□ QGIS □□ □□□□. □□ □□□□ □□□ □□□□ □□ □□ □□□□. □ □□□ 0 □ 1 □ □□ □□ □□□□ □□□ □□□□. 0 □□ □□ □□ □□□□. □□ □□ □□□□ □□□□. □□□ □□□□□ □□□□ □□ :guilabel: `Open Attribute Table` □ □□□□□.



18. □□ □□□ :guilabel: `Attribute table` □□ □□□□ □□ □□ □□ :guilabel: `Select feature using an expression` □ □□□□□.



19. Click the "DN" = 1 button in the toolbar. Click the "Select" button in the toolbar. Click the "Close" button in the toolbar.



20. QGIS の「Select By Expression」ダイアログボックスで、フィールド名「DN」を選択し、式「"DN" = 1」を入力して、選択範囲を指定する。ダイアログボックスの「Select」ボタンをクリックして、選択範囲を指定する。



21. `crime_clusters` `:guilabel:` Add saved file to map `:guilabel:` OK `:`

