

Visual Analyst 2D

User Guide /
Cheat Sheet

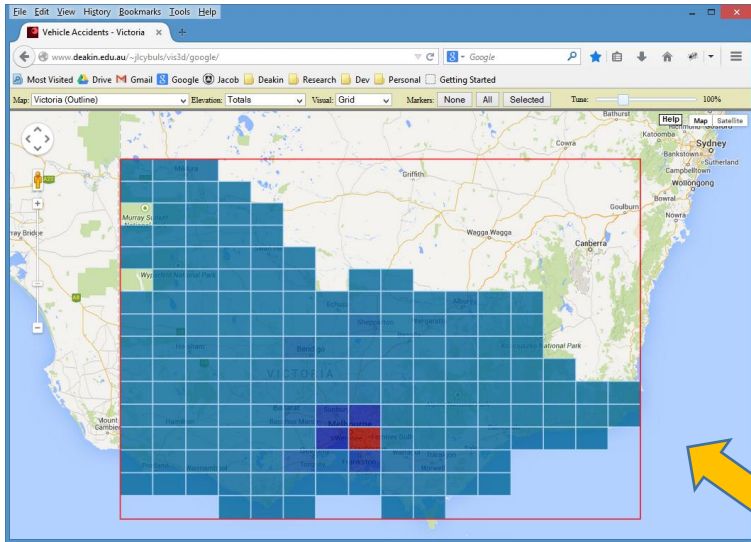
Data comes in the form of a terrain!

Such a terrain visualizes values of data points, which aggregate some aspects of accidents that occurred in geographical areas of Victoria. The areas are defined by splitting a map into segments arranged in rows and columns (e.g. 16x16, 128x128, etc).

To load a data terrain, select a “map” (which defines a data set) and the property to be displayed, pick the required visualization method (grid, bubble chart and heat map) and adjust colours by moving the fine tuning slider. You can also mark and later view the interesting terrain locations (markers).

Grid vs. Data Points

Grid



All data comes in the form of a grid!

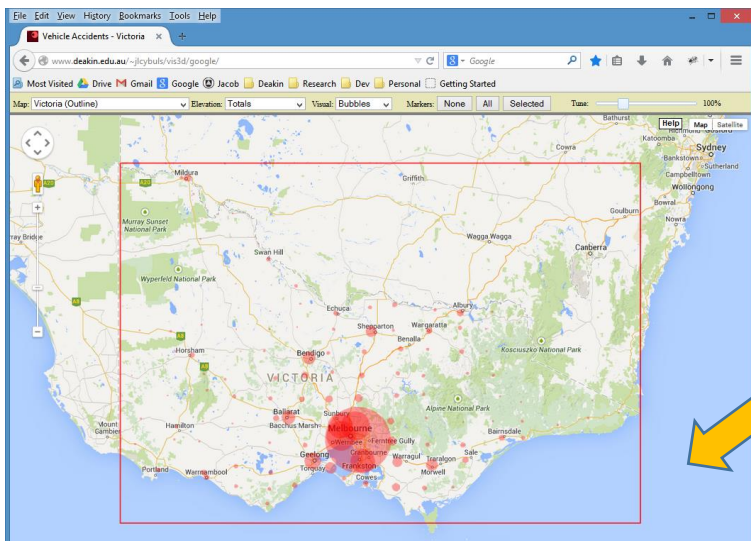
A grid cell captures all its data points.

A cell value aggregates all of its data points, e.g. sum, average, etc.

The larger grid cells, the more data they aggregate.

**More data
In each cell**

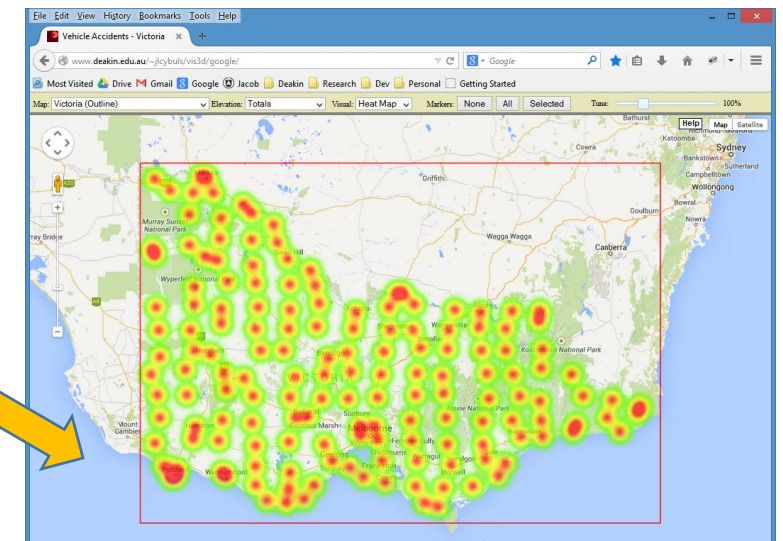
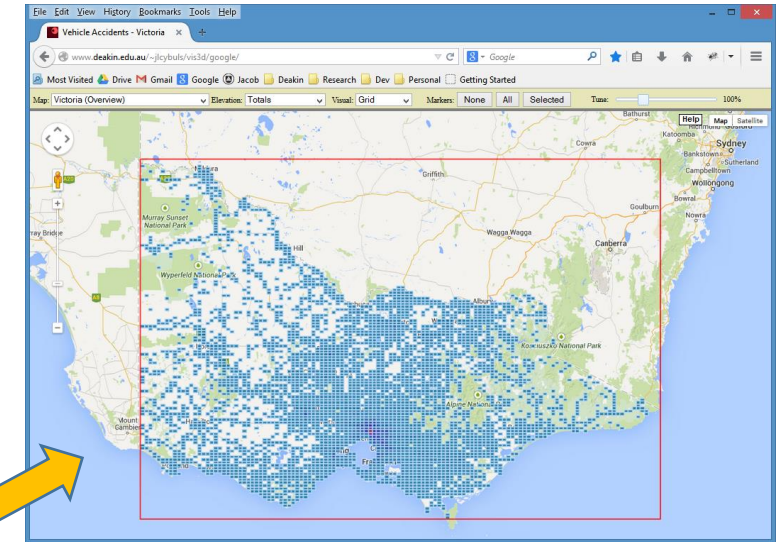
**Less data
in each cell**



Even if the map does not show grid cells, its data is still aggregated and presented as a data point for each invisible grid cell.

Bubble Chart

Grid



Heat Map

Maps and Their Resolution

Maps come in different resolution!

Maps are divided into rows and columns of grid cells.

The higher resolution, the more cells and less data points per cell.

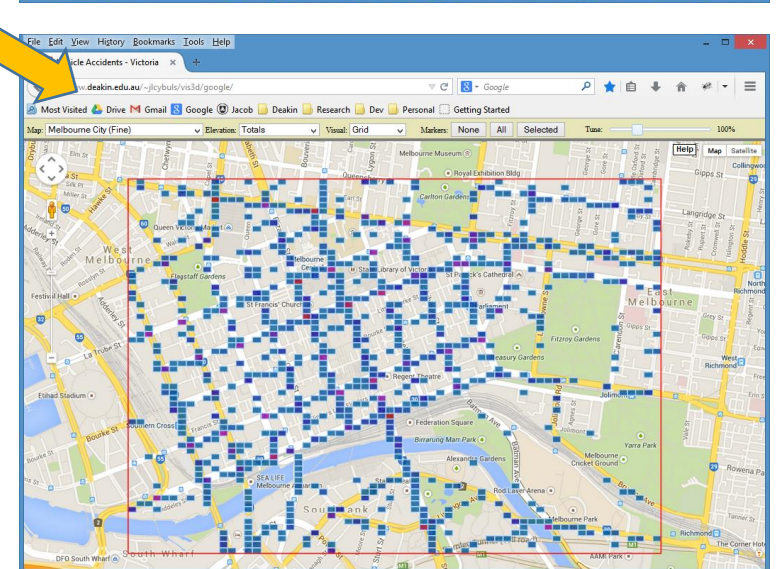
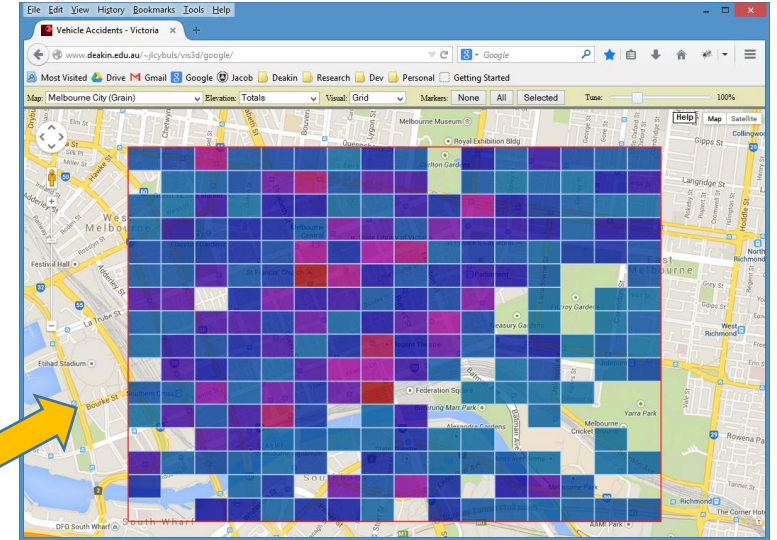
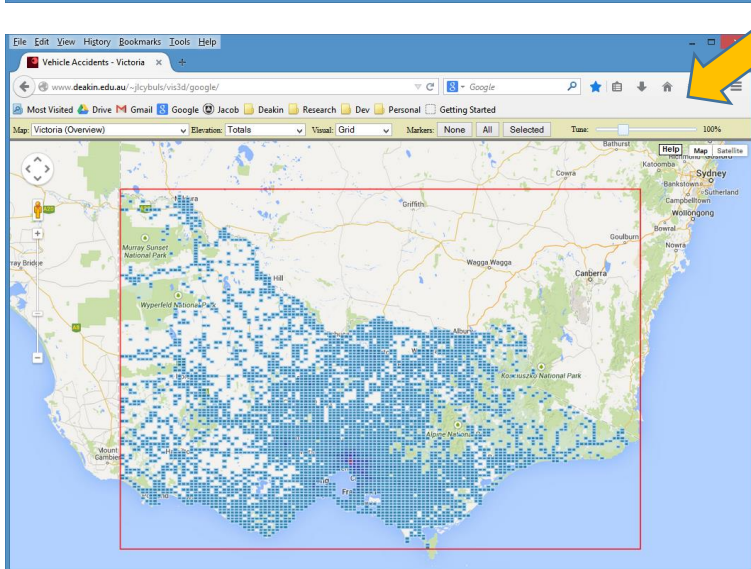
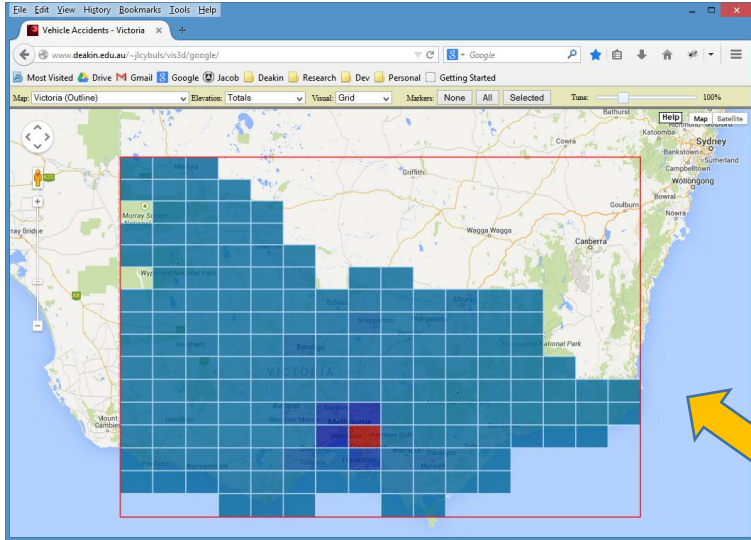
**Lower
Higher**

resolution

**Lower
Higher**

When a grid cell has no data, it is not displayed on a map.

As accidents tend to happen along the roads, so in a higher resolution map grid cells are also displayed along the roads.



Values, Colours, Sizes and Tuning

Data can be visualized differently!

In grids with colour: from pale green (low) through blue to red (high).

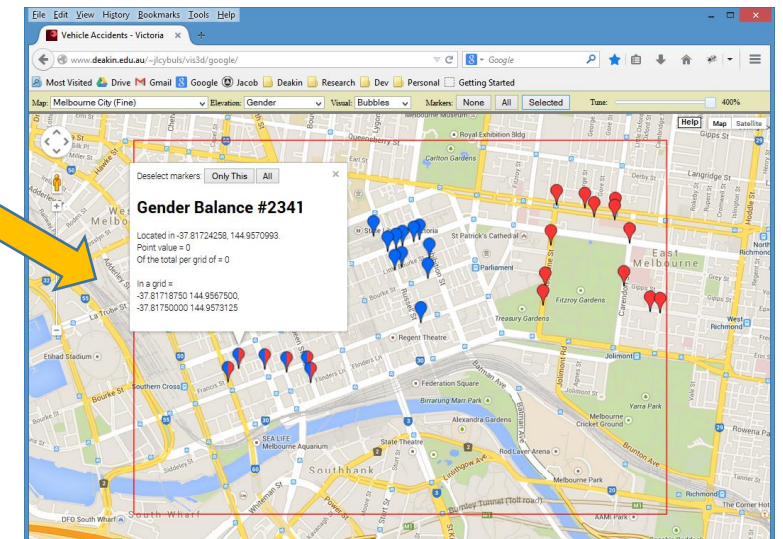
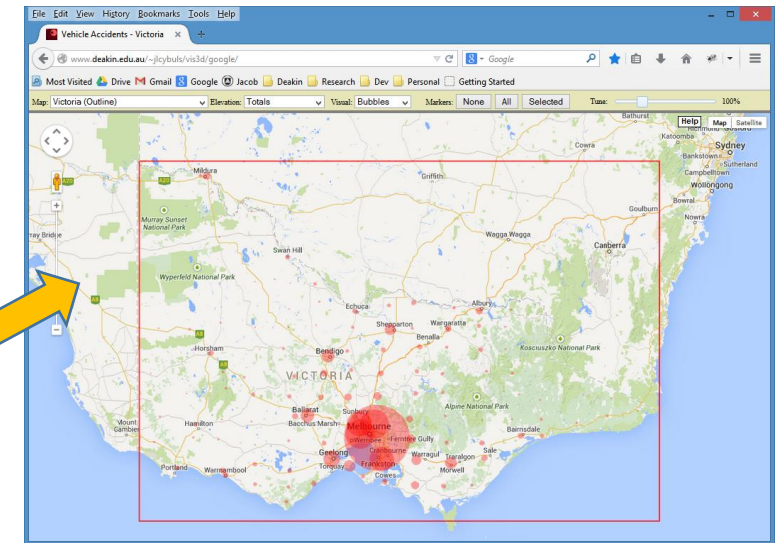
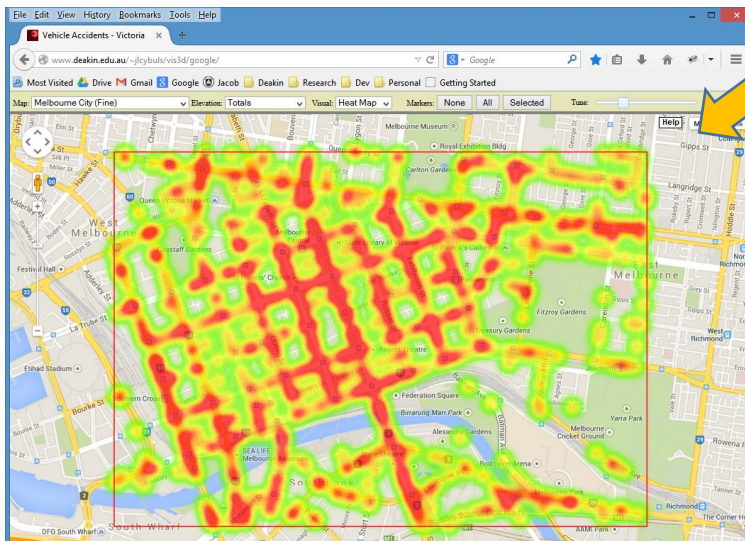
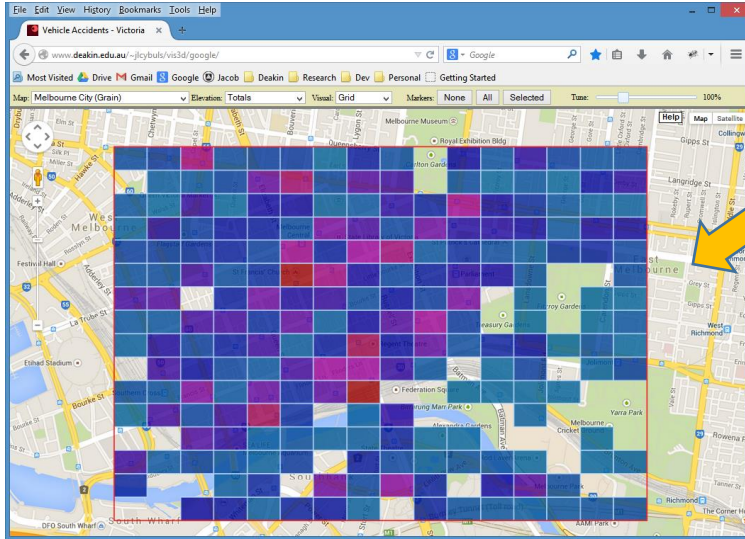
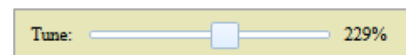
In bubble charts with size: from a small (low) to large (high).

In heat maps with colour: from pale green (low) to red (high). Heat areas can merge to aggregate values.

Markers show the details of a cell.
Their colour indicates values, i.e.



If size or colour are not discernible, you can adjust them with a tuner (not markers).



Markers and Their Info Windows



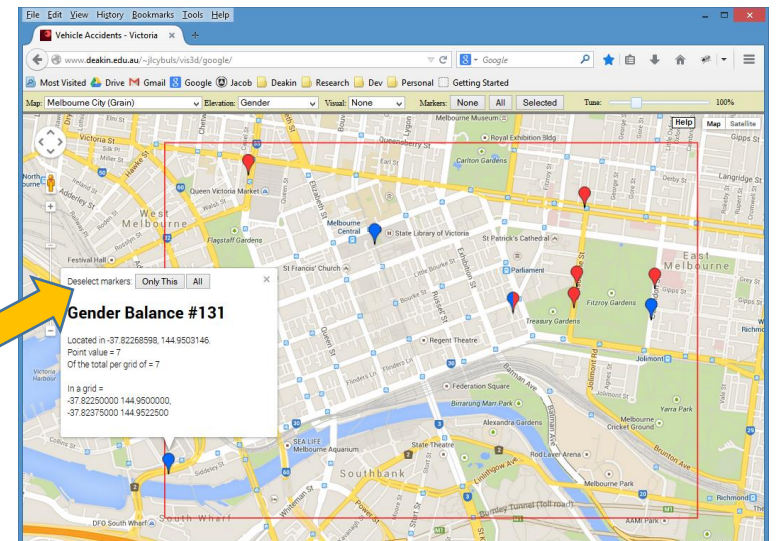
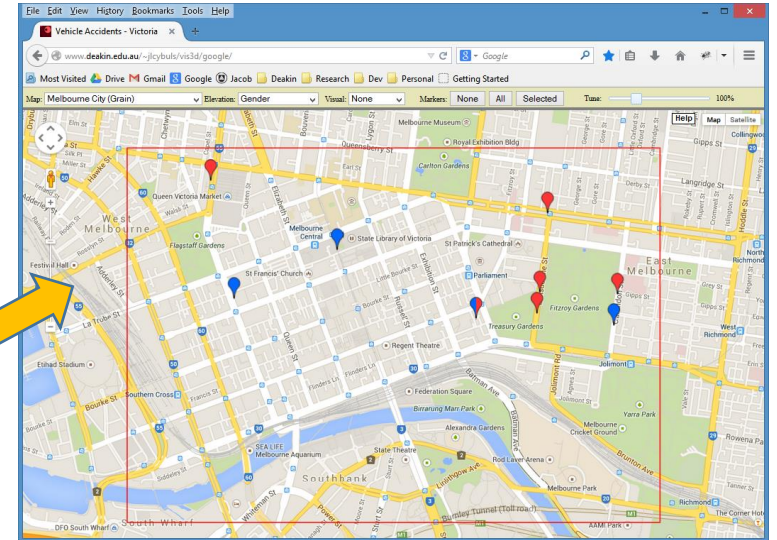
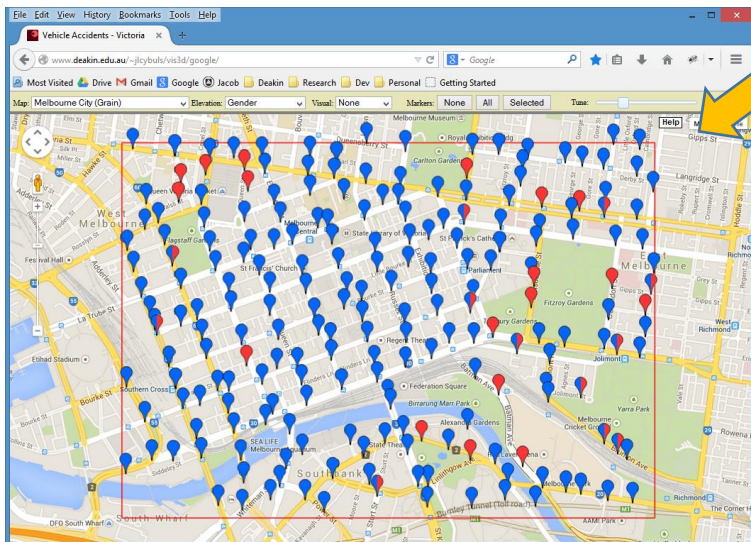
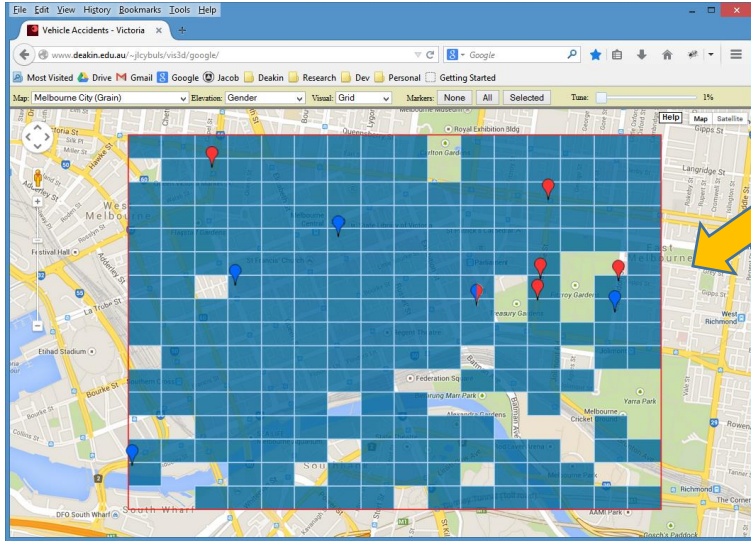
Discover details with markers!

Any grid cell (visible or invisible) can be clicked to show its marker, which can be pressed to find the cell value.

To find the exact location of the marker, switch the visual to “None”.

At any point in time, you can show all map’s markers or only those selected, or none.

If you want to deselect the marker, click it to open its info window, and then press the button “Deselect only this marker”. Each info window also includes a button to deselect all of the currently selected markers.



Acknowledgements

The Visual Analyst 2D was initially developed by A/Prof. Jacob Cybulski in the Department of Information Systems and Business Analytics at Deakin University, as part of the project “Enhancing collaborative learning in information systems business analytics using data visualisation and manipulation techniques”.

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