Technische Universiteit Eindhoven

Visualization

2IV35

Visualization data of the Netherlands

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Information Visualization

In this report we will describe how we implemented a web application for visualizing a large data set for the course 2IV35. This data set contains information about the population living in the Netherlands.
There is a wide variation of data, for instance the percentage of age range or car usage. The data is very large and it is hard to understand the data when viewed in the tabular view as it was provided, therefore we have come up with a better interface to make viewing and understanding the provided data easier.
In section 1, we will first give a description of the format of the data set.
In section 2, we will explain our design considerations for the interface.
In section 3, we will present our actual implementation, with screenshots and motivation.
In section 4, we will consider the trends found in the visualization.
Finally in section 5, we will give a short conclusion about how we choose to visualize the data.

1 MIP

In scientific visualization, a maximum intensity projection (MIP) is a volume rendering method for 3D data. It consists of projecting the voxel with the highest attenuation value on every view throughout the volume onto a 2D image.
This method tends to display bone and contrast materialfilled structures preferentially, and other lower-attenuation structures are not well visualized. The primary clinical application of MIP is to improve the detection of pulmonary nodules and assess their profusion. MIP also helps characterize the distribution of small nodules. In addition, MIP sections of variable thickness are excellent for assessing the size and location of vessels, including the pulmonary arteries and veins 1.