Basically, it is a 3D scatter-plot with three shades, which displays data points on a spatial space with different shapes, sizes and colors.

**Instruction:** the project can be compiled and run under Linux terminal as the following:

export LD\_LIBRARY\_PATH=\$LD\_LIBRARY\_PATH:../lib
make

./main cars.okc

Then follow the prompts on the screen.

For example, cars.okc, you will get the following prompts:

How many variables of original data set you want to use (prefer all of them):

Please include the variables' serial number you want to use (1 - Max), separate by space, then press enter.

Include: 1 2 3 4 5 6 7

According to Shape (Min) and Shape (Max) value, please input three proper cut-points for shapes (increasing), sperate by space, then press Enter: -0.5 -0.3 -0.1

Please input sizeFactor (prefer 0.1): 0.1

According to Color(Min) and Color(Max) value, please input two proper cut-points for colors(increasing), sperate by space, then press Enter  $-0.5\ 0.6$ 

Please input three locations for vec4 pvaSet for attribute shape, size and color (must be 0 - 7): 1 3 6  $\,$