## **NAME**

gvmap.sh - pipeline for running gvmap

#### **SYNOPSIS**

```
gvmap.sh [-vV?] [ options ] [ -o outfile ] [ files ]
```

#### DESCRIPTION

**gvmap.sh** takes as input a graph in DOT format, performs a layout, runs the output through gvmap and renders the output. At some point, it is hoped to integrate all of these tasks into gvmap.

### **OPTIONS**

The following options are supported:

-a k The integer k specifies the average number of artificial points added along the bounding box of the labels. Such artificial points are added to avoid a country boundary cutting through the boundary box of the labels. Computing time is proportional to k; hence, for large graphs, a small value of k is suggested. If k = -1, a suitable value of k is automatically selected based on the graph size. By default k = -1.

## -K layout

specifies which program should be use for the initial layout. By default, sfdp is run. Also by default, the layout is passed the flag -Goverlap=prism. This can be overridden using a -g flag.

#### -T format

specifies the final output format. This works the same way as the -T flag for any Graphviz layout program.

# -N attr=val

specifies the setting of a default node attribute during the rendering phase. This works the same way as the -N flag for any Graphviz layout program.

#### -G attr=val

specifies the setting of a graph attribute during the rendering phase. This works the same way as the -G flag for any Graphviz layout program.

# $-\mathbf{E}$ attr=val

specifies the setting of a default edge attribute during the rendering phase. This works the same way as the -E flag for any Graphviz layout program.

#### **-n** attr=val

specifies the setting of a default node attribute during the layout phase. This works the same way as the -N flag for any Graphviz layout program.

# $-\mathbf{g}$ attr=val

specifies the setting of a graph attribute during the layout phase. This works the same way as the -G flag for any Graphviz layout program.

## **−e** attr=val

specifies the setting of a default edge attribute during the layout phase. This works the same way as the -E flag for any Graphviz layout program.

- **-A** *flag* specifies a flag to be passed to gymap. For example, gymap.sh -Ae -As3 causes gymap -e -s3 to be run.
- -v Set verbose mode.
- **-V** Print version information and exit.
- -? Print usage information and exit.

# **EXAMPLES**

The following invocation creates a map with edges in semi-transparent light gray and nodes laid out using sfdp:

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```
gvmap.sh -Ae -Ecolor=#55555522 -Tpng foo.gv > foo.png

It is equivalent to running the pipeline

sfdp -Goverlap=prism foo.gv | gvmap -e | neato -n2 -Ecolor=#55555522 -Tpng > foo.png
```

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## **SEE ALSO**

gvmap(1), sfdp(1), neato(1), gvpr(1)

E. R. Gansner, Y. Hu, S. G. Kobourov, "GMap: Visualizing graphs and clusters as maps," Proc. Pacific Vis. 2010, pp. 201-208.

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