

**NAME**

edgepaint – edge coloring to disambiguate crossing edges

**SYNOPSIS**

[ *options* ] [ **-o** *outfile* ] [ *files* ]

**DESCRIPTION**

**edgepaint** takes as input a graph in DOT format with node position information (the *pos* attribute) and colors the edges in a manner making it easier to tell them apart.

**OPTIONS**

The following options are supported:

**--accuracy=*e***

Accuracy with which to find the maximally different coloring for each node with regard to its neighbors. Default *e* = 0.01.

**--angle=*a***

Color two edges differently if their incidence angle is less than *a* degrees. Default *a* = 15.

**--random\_seed=*s***

Random seed to use. *s* must be an integer. If *s* is negative, we do  $\lvert s \rvert$  iterations with different seeds and pick the best.

**--lightness=*l1,l2***

Only applies for the "lab" color scheme: *l1* and *l2* must integers, with  $0 \leq l1 \leq l2 \leq 100$ . By default, we use "0,70".

**--share\_endpoint**

If this option is specified, edges that share a node are not considered in conflict if they are close to parallel but are on the opposite sides of the node (around 180 degree).

**-o** *f* Write output to file *f* (default: stdout).

**--color\_scheme=*c***

Specifies the color scheme. This can be "rgb", "gray", "lab" (default); or a comma-separated list of RGB colors in hex (e.g., "#ff0000,#aabbcd,#eeffaa") representing a palette; or a string specifying a Brewer color scheme (e.g., "accent7"; see <https://graphviz.org/doc/info/colors.html#brewer>).

**-v** Turns on verbose mode.

**-?** Print usage and exit.

**BUGS**

At present, **edgepaint** does not handle graphs with loops or directed multiedges. So, a graph with edges  $a \rightarrow b$  and  $b \rightarrow a$  is acceptable, but not if it has edges  $a \rightarrow b$  and  $a \rightarrow b$  or  $a \dashrightarrow b$  and  $a \dashrightarrow b$ . Ports are ignored in this analysis, so having  $a.x \rightarrow b$  and  $a.y \rightarrow b$  is also not supported.

**AUTHOR**

Yifan Hu <yifanhu@yahoo.com>

**SEE ALSO**

gvmap(1), sfdp(1), neato (1), dot(1)