

**NAME**

unflatten – adjust directed graphs to improve layout aspect ratio

**SYNOPSIS**

**unflatten** [-f?] [-llen] [-c $len$ ] [-o *outfile*] [ files ]

**DESCRIPTION**

**unflatten** is a preprocessor to **dot** that is used to improve the aspect ratio of graphs having many leaves or disconnected nodes. The usual layout for such a graph is generally very wide or tall. **unflatten** inserts invisible edges or adjusts the **minlen** on edges to improve layout compaction.

**OPTIONS**

The following options are supported:

- l *len* The minimum length of leaf edges is staggered between 1 and *len* (a small integer).
- f Enables the staggering of the -l option to fanout nodes whose indegree and outdegree are both 1. This helps with structures such as  $a \rightarrow \{w\ x\ y\ z\} \rightarrow b$ . This option only works if the -l flag is set.
- c *len* Form disconnected nodes into chains of up to *len* nodes.
- o *outfile*  
causes the output to be written to the specified file; by default, output is written to **stdout**.
- ? Prints the usage and exits.

**OPERANDS**

The following operand is supported:

- files* Names of files containing 1 or more graphs in dot format. If no *files* operand is specified, the standard input will be used.

**AUTHORS**

Stephen C. North <north@research.att.com>  
Emden R. Gansner <erg@research.att.com>

**SEE ALSO**

gc(1), dot(1), acyclic(1), gvpr(1), gvcolor(1), ccomps(1), tred(1), libgraph(3)