### **NAME**

unflatten - adjust directed graphs to improve layout aspect ratio

### **SYNOPSIS**

```
unflatten [-f?] [-llen] [-clen] [ -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>
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## **SEE ALSO**

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