

**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 very wide or tall. **unflatten** creates chains with invisible edges or adjusts the **minlen** on edges to improve layout compaction.

**OPTIONS**

The following options are supported:

- l** *len*    The **minlen** of leaf edges is staggered between 1 and *len* (a small integer).
- f**        Applies the **-l** option to fanout nodes whose indegree and outdegree are both 1. This helps with structures such as *a -> {w x y z} -> b*. This option only works if the **-l** flag is set.
- c** *len*    Form disconnected nodes into chains of up to *len* edges.
- 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)