NAME
gvpack – merge and pack disjoint graphs

SYNOPSIS
gvpack [ −nguv? ] [ −m margin ] [ −array _flags][n] ] [ −ofile ] [ −graph_name ] [ −Gname=value ] [ files ]

DESCRIPTION
gvpack reads in a stream of graphs, combines the graphs into a single layout, and produces a single graph
serving as the union of the input graphs. The input graphs must be in dot format, and must have all neces-
sary layout information. Acceptable input is produced by applying a Graphviz layout program, such as dot
or neato, with no −T flag.

By default, the packing is done at the cluster level. Thus, parts of one graph will not intrude into any top-
level clusters or overlap any nodes or edges of another.

The output of gvpack can be used to produce concrete output by applying neato −s −n2 with the desired
−T flag.

OPTIONS
The following options are supported:

−g Combines the graphs at the graph level. This uses more space, but prevents parts of one graph
from occurring between parts of another.

−array _flags][n]
Combines the graphs at the graph level, placing them in an array. By default, the layout is done in
row-major order. The number of columns used is roughly the square root of the number of graphs.
If the optional integer n is supplied, this indicates the number of columns to use.

If optional flags are supplied, these consist of an underscore followed
by any of the letters "c", "t", "b", "l", "r", "u" or "i". If "c" is supplied, the graphs are packed in
column-major order, in which case a final integer specifies the number of rows. The flags "t", "b",
"l", "r" indicate that components are aligned along the top, bottom, left or right, respectively. By
default, the insertion order is determined by sorting the graphs by size, largest to smallest. If the
"u" flag is set, the graphs are sorted based on the non-negative integer sortv attribute attached to
each graph. The "i" flag indicates that no sorting is done, with the graphs inserted in input order.

−Gname=value
Specifies attributes to be added to the resulting union graph. For example, this can be used to spec-
ify a graph label.

−m margin
Packs the graphs allowing a margin of output points around the parts.

−n Combines the graphs at the node level. Clusters are ignored in the packing.

−ofile Prints output to the file output. If not given, gvpack uses stdout.

−graph_name Use graph_name as the name of the root graph. By default, "root" is used.

−u Don’t pack the graphs. Just combine them into a single graph.

−v Verbose mode.

−? Prints usage information and exit.

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.
RETURN CODES

gvpack returns 0 if there were no problems, and non-zero otherwise.

EXAMPLES

ccomps -x abc.gv | dot | gvpack | neato -s -n2 -Tps
This pipeline decomposes the graph in abc.gv into its connected components, lays out each using dot, packs them all together again, and produces the final drawing in PostScript. Of course, there is nothing to prevent one from using different layouts for each component.

BUGS

All the input graphs must be directed or undirected.

An input graph should not have a label, since this will be used in its layout. Since gvpack ignores root graph labels, resulting layout may contain some extra space.

gvpack unsets the bounding box attribute of all non-cluster subgraphs.

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SEE ALSO

gvpr(1), dot(1), neato(1), twopi(1), ccomps(1), libpack(3)