## NAME

sccmap – extract strongly connected components of directed graphs

## SYNOPSIS

**sccmap** [**–dsSv**] [ **–o***outfile* ] [ *files* ]

## DESCRIPTION

*sccmap* decomposes digraphs into strongly connected components and an auxiliary map of the relationship between components. In this map, each component is collapsed into a node. The resulting graphs are printed to standard out. The number of nodes, edges and strongly connected components are printed to standard error. **sccmap** is a way of partitioning large graphs into more manageable pieces.

## OPTIONS

The following options are supported:

**–d** Preserve degenerate components of only one node.

**–s** Do not print the resulting graphs. Only the statistics are important.

**–S** Just print the resulting graphs. No statistics are printed.

**–o***output*
Prints output to the file *output*. If not given, **sccmap** uses stdout.

**–v** Generate additional statistics. In particular, **sccmap** prints the number of nodes, edges, connected components, and strongly connected components, followed by the fraction of nodes in a non-trivial strongly connected components, the maximum degree of the graph, and fraction of non-tree edges in the graph.

## 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.

## DIAGNOSTICS

**sccmap** emits a warning if it encounters an undirected graph, and ignores it.

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## SEE ALSO

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