### **NAME**

sccmap – extract strongly connected components of directed graphs

## **SYNOPSIS**

```
sccmap [-dsv] [ -ooutfile ] [ 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.

## -ooutput

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.

### **AUTHORS**

```
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# **SEE ALSO**

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