NAME

bcomps – biconnected components filter for graphs

SYNOPSIS

bcomps [**–stvx?**] [**-o***outfile*] [*files*]

DESCRIPTION

bcomps decomposes graphs into their biconnected components, printing the components to standard output.

OPTIONS

The following options are supported:

–s No output graph is printed. Implies the **–v** flag.

–t Print the underlying block-cutvertex tree.

–x Each biconnected component is printed as a separate root graph.

–v Prints number of blocks and cutvertices.

–o *outfile*

If specified, each root graph will be written to a different file with the names derived from *outfile*. In particular, if both **-o** and **-x** flags are used, then each block is written to a different file. If *outfile* does not have a suffix, the nth block of the ith graph is written to *outfile_n_i*. However, the 0th block of the 0th graph is written to *outfile*.

If *outfile* has a suffix, i.e., has the form *base.sfx*, then the files will have the same name as above, except appended with *.sfx*.

The block-cutvertex tree of ith graph is written to *outfile_n_T*, with an appended suffix if specified.

By default, each input graph is printed, with each block given as a subgraph whose name is a concatenation of the name of the input graph, the string "_bcc_" and the number of the block.

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

bcomps returns **0** if all the input graphs are biconnected; and non-zero if any graph has multiple blocks, or any error occurred.

BUGS

It is possible, though unlikely, that the names used for connected components and their subgraphs may conflict with existing subgraph names.

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SEE ALSO

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