NAME

tred – transitive reduction filter for directed graphs

SYNOPSIS

tred [*files*]

DESCRIPTION

tred computes the transitive reduction of directed graphs, and prints the resulting graphs to standard output. This removes edges implied by transitivity. Nodes and subgraphs are not otherwise affected. The ‘‘meaning’’ and validity of the reduced graphs is application dependent. **tred** is particularly useful as a preprocessor to *dot* to reduce clutter in dense layouts.

Undirected graphs are silently ignored.

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.

BUGS

Using bitmaps internally would substantially decrease running time.

DIAGNOSTICS

If a graph has cycles, its transitive reduction is not uniquely defined. In this case *tred* emits a warning.

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), sccmap(1), libgraph(3)