

NAME

draw_astg - draw a Petri net (or a Signal Transition Graph)

SYNOPSIS

draw_astg [*options*]* [*infile*]

DESCRIPTION

draw_astg is a tool that draws a Petri net from a description in astg format (SIS compatible). It can generate descriptions in different formats: PostScript, MIF (FrameMaker graphics), HPGL (HP pen plotters), PCL (Laserjet printers), GIF (bitmap graphics) and DOT (graph format for dot).

In case the input file describes a state graph or a Petri net with only 1-token state machine, **draw_astg** can depict a state graph (nodes and labeled arcs).

draw_astg calls **dot**, a preprocessor designed at AT&T for drawing directed graphs.

OPTIONS

- h** Help mode, prints the usage.
- v** Print version only.
- ip** Show implicit (1-fanin 1-fanout) places.
- sg** Depict the net as a state graph. It only works if the specification is a state graph or a Petri net with only a 1-token state machine.
- bin** Depict the net as a state graph with binary encoding of the signals and shadowed states with CSC conflicts. This option only works when the input file has been generated with *write_sg -bin*.
- bw** Output a black-and-white picture. Recommended for black-and-white printers.
- nonames** Do not show place names and transition indices in Petri nets and do not show state names in state graphs.
- noinfo** Suppress information about signals in the caption of the figure.
- cn** Assume the net is a Context Net (with self-loop places) and depict context arcs as dotted arcs.
- Tfmt** Select the output graphic format. Valid values for *fmt* are *ps* (PostScript), *mif* (FrameMaker graphics), *hpgl* (HP pen plotters), *pcl* (Laserjet printers), *gif* (bitmap graphics) and *dot* (dot format). If the **-T** option is not used, **draw_astg** generates PostScript format.
- TB** Generate a top-bottom-oriented layout (default).
- LR** Generate a left-right-oriented layout.
- a4** Generate a layout for an A4-sized sheet (default).
- a3** Generate a layout for an A3-sized sheet.
- letter** Generate a layout for a letter-sized sheet.
- landscape** Rotate layout 90 degrees.
- nobox** Show transitions with no boxes (only labels).
- x[cm]*n*** Define the maximum width of the layout (in cm).
- y[cm]*n*** Define the maximum height of the layout (in cm).
- xin*n*** Define the maximum width of the layout (in inches).
- yin*n*** Define the maximum height of the layout (in inches).

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-o *outfile* Write the output to *outfile*. Otherwise, the result is written to *stdout*.

ADVANCED OPTIONS

-nofold Do not fold layout. If this option is not specified, the layout is folded to reduce its height. This option is suggested as an alternative way of generating the layout to improve its planarity.

EXAMPLES

draw_astg graph.g -o graph.ps

generates a PostScript file for the Petri net described in *graph.g*.

draw_astg graph.g -x10.5 -y12 | ghostview -

generates a 10.5cm x 12cm layout in Postscript format. The output is displayed through *ghostview*.

petrify graph.in | draw_astg -Tmif -o graph.mif

generates a picture of the STG generated by **petrify** in MIF format and writes the output into the file *graph.mif*.

write_sg -bin graph.g | draw_astg -bin -noinfo -o graph.ps

generates a state graph from the STG described in *graph.g* and generates a picture with information about binary codes and CSC conflicts. Caption on signal information is suppressed.

BUGS

What are you talking about ?

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STATUS

Use at your own risk. Bug reports are welcomed, as well as success stories.