

**NAME**

grodvi - convert groff output to TeX dvi format

**SYNOPSIS**

**grodvi** [ **-dlv** ] [ **-F** *dir* ] [ **-ppapersize** ] [ **-wn** ] [ *files...* ]

It is possible to have whitespace between a command line option and its parameter.

**DESCRIPTION**

**grodvi** is a driver for **groff** that produces TeX dvi format. Normally it should be run by **groff -Tdvi**. This will run **troff -Tdvi**; it will also input the macros in `/usr/share/groff/1.22.3/tmac/dvi.tmac`.

The dvi file generated by **grodvi** can be printed by any correctly-written dvi driver. The troff drawing primitives are implemented using the tpic version 2 specials. If the driver does not support these, the **D** commands will not produce any output.

There is an additional drawing command available:

**D'R dh dv'**

Draw a rule (solid black rectangle), with one corner at the current position, and the diagonally opposite corner at the current position  $+(dh,dv)$ . Afterwards the current position will be at the opposite corner. This produces a rule in the dvi file and so can be printed even with a driver that does not support the tpic specials unlike the other **D** commands.

The groff command **X'anything'** is translated into the same command in the dvi file as would be produced by **special{anything}** in TeX; *anything* may not contain a newline.

For inclusion of EPS image files, **-Tdvi** loads **pspic.tmac** automatically, providing the **PSPIC** macro. Please check [groff\\_tmac\(5\)](#) for a detailed description.

Font files for **grodvi** can be created from tfm files using [tfmtoedit\(1\)](#). The font description file should contain the following additional commands:

**internalname name**

The name of the tfm file (without the **.tfm** extension) is *name*.

**checksum n** The checksum in the tfm file is *n*.

**designsize n** The designsize in the tfm file is *n*.

These are automatically generated by **tfmtoedit**.

The default color for **m** and **M** is black. Currently, the drawing color for **D** commands is always black, and fill color values are translated to gray.

In **troff** the **N** escape sequence can be used to access characters by their position in the corresponding tfm file; all characters in the tfm file can be accessed this way.

By design, the DVI format doesn't care about physical dimensions of the output medium. Instead, **grodvi** emits the equivalent to TeX's **special{papersize=*width,length*}** on the first page; **dvips** (and possibly other DVI drivers) then sets the page size accordingly. If either the page width or length is not positive, no papersize special is output.

**OPTIONS**

**-d** Do not use tpic specials to implement drawing commands. Horizontal and vertical lines will be implemented by rules. Other drawing commands will be ignored.

**-F** *dir* Prepend directory *dir/devname* to the search path for font and device description files; *name* is the name of the device, usually **dvi**.

**-l** Specify landscape orientation.

**-ppapersize**

Specify paper dimensions. This overrides the **papersize**, **paperlength**, and **paperwidth** commands in the **DESC** file; it accepts the same arguments as the **papersize**

- command (see [groff\\_font\(5\)](#) for details).
- v** Print the version number.
  - wn** Set the default line thickness to *n* thousandths of an em. If this option isn't specified, the line thickness defaults to 0.04 em.

## USAGE

There are styles called **R**, **I**, **B**, and **BI** mounted at font positions 1 to 4. The fonts are grouped into families **T** and **H** having members in each of these styles:

<b>TR</b>	CM Roman (cmr10)
<b>TI</b>	CM Text Italic (cmti10)
<b>TB</b>	CM Bold Extended Roman (cmbx10)
<b>TBI</b>	CM Bold Extended Text Italic (cmbxti10)
<b>HR</b>	CM Sans Serif (cmss10)
<b>HI</b>	CM Slanted Sans Serif (cmssi10)
<b>HB</b>	CM Sans Serif Bold Extended (cmssbx10)
<b>HBI</b>	CM Slanted Sans Serif Bold Extended (cmssbxo10)

There are also the following fonts which are not members of a family:

<b>CW</b>	CM Typewriter Text (cmtt10)
<b>CWI</b>	CM Italic Typewriter Text (cmitt10)

Special fonts are **MI** (cmmi10), **S** (cmsy10), **EX** (cmex10), **SC** (cmtex10, only for **CW**), and, perhaps surprisingly, **TR**, **TI**, and **CW**, due to the different font encodings of text fonts. For italic fonts, **CWI** is used instead of **CW**.

Finally, the symbol fonts of the American Mathematical Society are available as special fonts **SA** (msam10) and **SB** (msbm10). These two fonts are not mounted by default.

Using the option **-mec** (which loads the file **ec.tmac**) provides the EC and TC fonts. The design of the EC family is very similar to that of the CM fonts; additionally, they give a much better coverage of groff symbols. Note that **ec.tmac** must be called before any language-specific files; it doesn't take care of hcode values.

## ENVIRONMENT

### GROFF\_FONT\_PATH

A list of directories in which to search for the **devname** directory in addition to the default ones. See [troff\(1\)](#) and [groff\\_font\(5\)](#) for more details.

## FILES

**/usr/share/groff/1.22.3/font/devdvi/DESC**  
Device description file.

**/usr/share/groff/1.22.3/font/devdvi/F**  
Font description file for font *F*.

**/usr/share/groff/1.22.3/tmac/dvi.tmac**  
Macros for use with **grodvi**.

**/usr/share/groff/1.22.3/tmac/ec.tmac**  
Macros to switch to EC fonts.

## BUGS

Dvi files produced by **grodvi** use a different resolution (57816 units per inch) to those produced by **T<sub>E</sub>X**. Incorrectly written drivers which assume the resolution used by **T<sub>E</sub>X**, rather than using the resolution specified in the dvi file will not work with **grodvi**.

When using the **-d** option with boxed tables, vertical and horizontal lines can sometimes protrude by one pixel. This is a consequence of the way **T<sub>E</sub>X** requires that the heights and widths of rules be rounded.

**SEE ALSO**

[tfmtodit\(1\)](#), [groff\(1\)](#), [troff\(1\)](#), [groff\\_out\(5\)](#), [groff\\_font\(5\)](#), [groff\\_char\(7\)](#), [groff\\_tmac\(5\)](#)

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