

**NAME**

**dvipdfmx**, **xdvipdfmx**, **dvipdfm** – produce PDF files directly from DVI files

**SYNOPSIS**

**dvipdfmx** or **dvipdfm** [*options*] *file*[.dvi]

**DESCRIPTION**

The program **dvipdfmx** generates a PDF file from a DVI file. DVI files are the output produced by TeX. **groff** can also generate DVI files using **grodvi**(-Tdvi).

In TeX Live, **dvipdfm** is another incarnation of **dvipdfmx** rather than a separate program. Compatibility is attempted as best as possible.

**xdvipdfmx** is another incarnation. It is used as the back end for **xetex**(1) and is not intended to be invoked directly.

**dvipdfmx** recognizes several commonly used **\special** commands, which are extensions to the DVI format. Specifically, it understands color specials, papersize specials, tpic specials (which allow it to be used with **pic**), hypertext specials, and some PostScript specials. These extensions allow documents to contain color, figures, and hyperlinks. The program tries to mimic the behavior of **dvips** where possible, so that many macro packages produced for use with **dvips** will also work with **dvipdfmx**. In addition, **dvipdfmx** understands its own specific **\special** commands to allow access to PDF features such as annotations and bookmarks.

As of December 2018, one such special specific to **dvipdfmx** is *pdf:trailerid*, which specifies the /ID in the PDF trailer. It is used like this (from the TeX level):

```
\special{pdf:trailerid [ (0123456789abcdef) (01234567890abcdef) ] }
```

That is, the special takes an array (the square brackets) of two 16-byte PDF strings (the parentheses). This is the same syntax as LuaTeX's *\pdfvariable trailerid*, while different from pdfTeX's *\pdftrailerid*. It must appear on the first output page, otherwise it is ignored.

Unrecognized specials will generate warning messages. Packages that may need a **dvipdfm** or **dvipdfmx** driver option include *geometry*, *hyperref*, *bookmark*, *graphicx*, and *xcolor*.

For issues related to bounding boxes (and hence image sizes), see **extractbb**(1).

**OPTIONS**

Unlike with many other programs, argument values must be separated from option names by a space, not an = sign; option names cannot be abbreviated; and – and — cannot be used interchangeably.

–c Ignore (or accept) color **\specials**. By default, color **\specials** are interpreted normally (changeable in the configuration file). The –c option may be used to produce a black and white document from a document containing color TeX **\special** commands.

–dvipdfm

Enable **dvipdfm** emulation mode. This is the default if the executable name is ‘dvipdfm’.

–d number

Specify the number of decimal digits in the PDF output; must be between 0 and 5, default is 2.

- e** Ignored, for (semi-)compatibility with **dvipdfm**.
- f map\_file**  
Read the font map file given by *map\_file*. The default map file in TeX Live is *pdfTeX.map*, as defined in the configuration file.
- help**  
Show a help message and exit successfully.
- i cfgfile**  
Read *cfgfile* as another include file, after reading the default *dvipdfmx.cfg*.
- l** Select landscape mode. In other words, exchange the *x* and *y* dimensions of the paper.
- m mag**  
Magnify the input document by *mag*.
- o filename**  
Set the PDF output file name; use '-' for stdout. By default, the name of the output file is derived from the input, that is, *file.pdf*.
- p paper**  
Select the papersize by name (e.g., **letter**, **legal**, **ledger**, **tabloid**, **a3**, **a4**, or **a5** )
- q** Quiet mode.
- r size**  
Set resolution of bitmapped fonts to **size** dots per inch. Bitmapped fonts are generated by the Kpathsea library, which uses Metafont. Bitmapped fonts are included as Type 3 fonts in the PDF output file. Default is 600.
- s page\_specifications**  
Select the pages of the DVI file to be processed; default is '-', meaning all pages. The *page\_specifications* consists of a comma separated list of *page\_ranges*:  

$$page\_specifications := page\_specification[, page\_specifications]$$
 where  

$$page\_specification := single\_page | page\_range$$

$$page\_range := [first\_page] - [last\_page]$$
 An empty *first\_page* is treated as the first page of the DVI file, and an empty *last\_page* is treated as the last page of the DVI file.  
  
 Examples:  
  - s 1,3,5**  
includes pages 1, 3, and 5;
  - s -** includes all pages;
  - s -,-**  
includes two copies of all pages in the DVI file; and
  - s 1-10**  
includes the first ten pages of the DVI file.
- t** Search for thumbnail images of each page in the directory named by the **TMPDIR** environment variable. The thumbnail images must be named in a specific format: the same base name as the DVI file and the page number as the extension to the file name.

**dvipdfmx** does not generate such thumbnails itself, but it is distributed with a wrapper program named **dvipdft** that does so.

**--version**

Show a help message and exit successfully.

- v** Increase verbosity. Results of the **-v** option are cumulative (e.g., **-vv** increases the verbosity by two increments). Maximum verbosity is four.

**--kpathsea-debug number**

Have Kpathsea output debugging information; ‘-1’ for everything (voluminous).

**-x x\_offset**

Set the left margin to *x\_offset*. The default left margin is **1.0in**. The dimension may be specified in any units understood by TeX (e.g., **bp**, **pt**, **in**, **cm**).

**-y y\_offset**

Set the top margin to *y\_offset*. The default top margin is **1.0in**. The dimension may be specified in any units understood by TeX (e.g., **bpt**, **pt**, **in**, **cm**).

**-z number**

Set the compression level to *compression\_level*. Compression levels range from 0 (no compression) to 9 (maximum compression) and correspond to the values understood by zlib; default is 9.

**-C number**

Miscellaneous option flags; see the **--help** output for details.

**-D template**

PostScript to PDF conversion command line template; the default is taken from the configuration file, which also gives all the details and mentions several possibilities.

- E** Always try to embed fonts, ignoring licensing flags, etc.

**-I number**

Image cache life in hours; default is -2, meaning to not cache images at all. A value of -1 means to erase all old images and also new images; 0 means to erase all old images but leave new images.

**-K number**

Encryption key length; default 40.

- M** Process MetaPost PostScript output.

**-O number**

Set maximum depth of open bookmark items; default 0.

**-P number**

Set permission flags for PDF encryption; default 0x003C.

- S** Enable PDF encryption.

**-V number**

Set PDF minor version; default 5 (from the configuration file).

## IMAGE BOUNDING BOXES

When including images with **dvipdfmx**, their bounding boxes should be generated by running **extractbb**. The result will be in an **.xbb** file; the xbb information is the same as for the PDF

format.

## ENVIRONMENT

**dvipdfmx** uses the **kpathsea** library for locating the files that it opens. Hence, the environment variables documented in the *Kpathsea library* documentation influence **dvipdfmx**. It also uses the value of the environment variable TMPDIR as the directory to search for thumbnail images of each page.

## FILES

The precise location of the following files is determined by the *Kpathsea library* configuration. The location may be determined by using `kpsewhich`, e.g.,

**kpsewhich --programe=dvipdfmx --format='other text files' dvipdfmx.cfg**

*dvipdfmx.cfg*

Default configuration file

*dvipdfmx-unsafe.cfg*

Configuration file that runs Ghostscript without safety checks; use only for trusted source files. It is currently required to use PSTricks with XeTeX: **xetex --output-driver="xdvipdfmx -i dvipdfmx-unsafe.cfg -q -E" ...**

*pdfTeX.map*

The default font map file (this may be changed in the config file).

*\*.tfm* TeX font metrics

*\*.vf* TeX virtual font files

*\*.pfb* PostScript Type 1 font files

*texmf.cnf*

The Kpathsea library configuration file. The location of this file may be found by typing **kpsewhich texmf.cnf**

## SEE ALSO

`dvipdft(1)`, `extractbb(1)`,  
`tex(1)`, `luatex(1)`, `xetex(1)`, `dvips(1)`,  
`groff(1)`, `grodvi(1)`, `pic(1)`, the Kpathsea library Info documentation (<https://tug.org/kpathsea>),  
and the Dvipdfmx User's Manual (in the distribution, and linked from <https://tug.org/dvipdfmx>).

## AUTHOR

Primarily Mark A. Wicks; dvipdfmx extensions primarily by Jin-Hwan Cho, Shunsaku Hirata, and Matthias Franz. For the version in TeX Live, please send bugs and other reports to the maintainers at dvipdfmx (at) tug.org (<https://lists.tug.org/dvipdfmx>).

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