

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 --progname=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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