NAME

pdftex − PDF output from TeX

SYNOPSIS

pdftex [*options*] [**&***format*] [*file*|*\commands*]

DESCRIPTION

Run the pdfTeX typesetter on *file*, usually creating *file.pdf*. If the file argument has no extension, ".tex" will be appended to it. Instead of a filename, a set of pdfTeX commands can be given, the first of which must start with a backslash. With a **&** *format* argument pdfTeX uses a different set of precompiled commands, contained in *format***.fmt**; it is usually better to use the **-fmt** *format* option instead.

pdfTeX is a version of TeX, with the e-TeX extensions, that can create *PDF* files as well as *DVI* files.

In *DVI* mode, pdfTeX can be used as a complete replacement for the TeX engine.

The typical use of pdfTeX is with a pregenerated formats for which PDF output has been enabled. The **pdftex** command uses the equivalent of the plain TeX format, and the **pdflatex** command uses the equivalent of the LaTeX format. To generate formats, use the **-ini** switch.

The **pdfinitex** and **pdfvirtex** commands are pdfTeX's analogues to the **initex** and **virtex** commands. In this installation, if the links exist, they are symbolic links to the **pdftex** executable.

In *PDF* mode, pdfTeX can natively handle the *PDF*, *JPG*, *JBIG2*, and *PNG* graphics formats. pdfTeX cannot include PostScript or Encapsulated PostScript (EPS) graphics files; first convert them to PDF using **epstopdf**(1). pdfTeX's handling of its command-line arguments is similar to that of of the other TeX programs in the *web2c* implementation.

OPTIONS

This version of pdfTeX understands the following command line options.

-draftmode
: Sets \pdfdraftmode so pdfTeX doesn't write a PDF and doesn't read any included images, thus speeding up execution.

-enc Enable the encTeX extensions. This option is only effective in combination with **-ini**. For documentation of the encTeX extensions see **http://www.olsak.net/enctex.html**.

-etex Enable the e-TeX extensions. This option is only effective in combination with **-ini**. See **etex**(1).

-file-line-error
: Print error messages in the form *file:line:error* which is similar to the way many compilers format them.

-no-file-line-error
: Disable printing error messages in the *file:line:error* style.

-file-line-error-style
: This is the old name of the **-file-line-error** option.

-fmt *format*
: Use *format* as the name of the format to be used, instead of the name by which pdfTeX was called or a %& line.

-halt-on-error
Exit with an error code when an error is encountered during processing.

-help Print help message and exit.

-ini Start in *INI* mode, which is used to dump formats. The *INI* mode can be used for typesetting, but no format is preloaded, and basic initializations like setting catcodes may be required.

-interaction *mode*
Sets the interaction mode. The mode can be either *batchmode*, *nonstopmode*, *scrollmode*, and *errorstopmode*. The meaning of these modes is the same as that of the corresponding \commands.

-ipc Send DVI or PDF output to a socket as well as the usual output file. Whether this option is available is the choice of the installer.

-ipc-start
As **-ipc**, and starts the server at the other end as well. Whether this option is available is the choice of the installer.

-jobname *name*
Use *name* for the job name, instead of deriving it from the name of the input file.

-kpathsea-debug *bitmask*
Sets path searching debugging flags according to the bitmask. See the *Kpathsea* manual for details.

-mktex *fmt*
Enable mktex *fmt*, where *fmt* must be either *tex* or *tfm*.

-mltex Enable MLTEX extensions. Only effective in combination with **-ini**.

-no-mktex *fmt*
Disable mktex *fmt*, where *fmt* must be either *tex* or *tfm*.

-output-comment *string*
In *DVI* mode, use *string* for the *DVI* file comment instead of the date. This option is ignored in *PDF* mode.

-output-directory *directory*
Write output files in *directory* instead of the current directory. Look up input files in *directory* first, the along the normal search path.

-output-format *format*
Set the output format mode, where *format* must be either *pdf* or *dvi*. This also influences the set of graphics formats understood by pdfTEX.

-parse-first-line
If the first line of the main input file begins with %& parse it to look for a dump name or a **-translate-file** option.

-no-parse-first-line
Disable parsing of the first line of the main input file.

-progname *name*
Pretend to be program *name*. This affects both the format used and the search paths.

-recorder
Enable the filename recorder. This leaves a trace of the files opened for input and output in a file with extension *.fls*.

-shell-escape
Enable the **\write18{***command***}** construct. The *command* can be any shell command. This construct is normally disallowed for security reasons.

-no-shell-escape
Disable the **\write18{***command***}** construct, even if it is enabled in the *texmf.cnf* file.

-src-specials
In *DVI* mode, insert source specials into the *DVI* file. This option is ignored in *PDF* mode.

-src-specials *where*
In *DVI* mode, insert source specials in certain placed of the *DVI* file. *where* is a comma-separated value list: *cr*, *display*, *hbox*, *math*, *par*, *parent*, or *vbox*. This option is ignored in *PDF* mode.

-translate-file *tcxname*
Use the *tcxname* translation table to set the mapping of input characters and re-mapping of output characters.

-default-translate-file *tcxname*
Like **-translate-file** except that a *%&* line can overrule this setting.

-version
Print version information and exit.

ENVIRONMENT

See the Kpathsearch library documentation (the 'Path specifications' node) for precise details of how the environment variables are used. The **kpsewhich** utility can be used to query the values of the variables.

One caveat: In most pdfTEX formats, you cannot use ~ in a filename you give directly to pdfTEX, because ~ is an active character, and hence is expanded, not taken as part of the filename. Other programs, such as METAFONT, do not have this problem.

TEXMFOUTPUT
Normally, pdfTEX puts its output files in the current directory. If any output file cannot be opened there, it tries to open it in the directory specified in the environment variable TEXMFOUTPUT. There is no default value for that variable. For example, if you say *pdftex paper* and the current directory is not writable and TEXMFOUTPUT has the value */tmp*, pdfTEX attempts to create */tmp/paper.log* (and */tmp/paper.pdf*, if any output is produced.) TEXMFOUTPUT is also checked for input files, as TEX often generates files that need to be subsequently read; for input, no suffixes (such as ''.tex'') are added by default, the input name is simply checked as given.

TEXINPUTS
Search path for *\input* and *\openin* files. This should start with '':'', so that user files are found before system files. An empty path component will be replaced with the paths defined in the *texmf.cnf* file. For example, set TEXINPUTS to ".:/home/user/tex:" to prepend the current directory and ''/home/user/tex'' to the standard search path.

TEXFORMATS
Search path for format files.

TEXPOOL
search path for **pdftex** internal strings.

TEXEDIT
Command template for switching to editor. The default, usually **vi**, is set when pdfTEX is compiled.

TFMFONTS
Search path for font metric (*.tfm*) files.

FILES

The location of the files mentioned below varies from system to system. Use the **kpsewhich** utility to find their locations.

pdftex.pool
Text file containing pdfTEX's internal strings.

pdftex.map
Filename mapping definitions.

**.tfm* Metric files for pdfTEX's fonts.

**.fmt* Predigested pdfTEX format (. fmt) files.

NOTES

Starting with version 1.40, pdfTEX incorporates the e-TEX extensions, and pdfeTEX is just a copy of pdfTEX. See **etex**(1). This manual page is not meant to be exhaustive. The complete documentation for this version of pdfTEX can be found in the *pdf*TEX *manual* and the info manual *Web2C: A TeX implementation*.

BUGS

This version of pdfTEX implements a number of optional extensions. In fact, many of these extensions conflict to a greater or lesser extent with the definition of pdfTEX. When such extensions are enabled, the banner printed when pdfTEX starts is changed to print **pdfTeXk** instead of **pdfTeX**.

This version of pdfTEX fails to trap arithmetic overflow when dimensions are added or subtracted. Cases where this occurs are rare, but when it does the generated *DVI* file will be invalid. Whether a generated *PDF* file would be usable is unknown.

AVAILABILITY

pdfTEX is available for a large variety of machine architectures and operation systems. pdfTEX is part of all major TEX distributions.

Information on how to get pdfTEX and related information is available at the **http://www.pdftex.org** *pdf*TEX web site.

The following pdfeTEX related mailing list is available: **pdftex@tug.org**. This is a mailman list; to subscribe send a message containing *subscribe* to **pdftex-request@tug.org**. A web interface and list archives can be found at the **http://lists.tug.org/pdftex** mailing list web site.

SEE ALSO

epstopdf(1), **etex**(1), **latex**(1), **luatex**(1), **mptopdf**(1), **tex**(1), **mf**(1). http://pdftex.org, http://tug.org/web2c.

AUTHORS

The primary authors of pdfTeX are Han The Thanh, Petr Sojka, Jiri Zlatuska, and Peter Breitenlohner (eTeX).

TeX was designed by Donald E. Knuth, who implemented it using his WEB system for Pascal programs. It was ported to Unix at Stanford by Howard Trickey, and at Cornell by Pavel Curtis. The version now offered with the Unix TeX distribution is that generated by the WEB to C system (**web2c**), originally written by Tomas Rokicki and Tim Morgan.

The encTeX extensions were written by Petr Olsak.