

NAME

etex, einitex, evirtex – extended TeX

SYNOPSIS

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

DESCRIPTION

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

e-TeX is the first concrete result of an international research & development project, the NTS Project, which was established under the aegis of DANTE e.V. during 1992. The aims of the project are to perpetuate and develop the spirit and philosophy of TeX, whilst respecting Knuth's wish that TeX should remain frozen.

e-TeX can be used in two different modes: in *compatibility mode* it is supposed to be completely interchangeable with standard TeX. In *extended mode* several new primitives are added that facilitate (among other things) bidirectional typesetting.

An extended mode format is generated by prefixing the name of the source file for the format with an asterisk (*). Such formats are often prefixed with an 'e', hence **etex** as the extended version of **tex** and **elatex** as the extended version of **latex**. However, **explain** is an exception to this rule.

The **einitex** and **evirtex** commands are e-TeX's analogues to the **initex** and **virtex** commands. In this installation, they are symbolic links to the **etex** executable. These symbolic links may not exist at all.

e-TeX's handling of its command-line arguments is similar to that of the other TeX programs in the *web2c* implementation.

OPTIONS

This version of e-TeX understands the following command line options.

-fmt format

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

-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/enc tex.html>.

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

-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.

-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 type-setting, 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 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 ML_T_EX extensions. Only effective in combination with **-ini**.

-no-mktex fmt

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

-output-comment string

Use *string* for the *DVI* file comment instead of the date.

-output-directory directory

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

-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.

-progrname 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

Insert source specials into the *DVI* file.

-src-specials where

Insert source specials in certain places of the *DVI* file. *where* is a comma-separated value list: *cr*, *display*, *hbox*, *math*, *par*, *parent*, or *vbox*.

-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 e-TeX formats, you cannot use `~` in a filename you give directly to e-TeX, 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, e-TeX 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 *etex paper* and the current directory is not writable, if **TEXMFOUTPUT** has the value */tmp*, e-TeX attempts to create */tmp/paper.log* (and */tmp/paper.dvi*, if any output is produced.)

TEXINPUTS

Search path for `\input` and `\openin` files. This should probably 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/usr/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 **etex** internal strings.

TEXEDIT

Command template for switching to editor. The default, usually **vi**, is set when e- \TeX 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.

etex.pool

Text file containing e- \TeX 's internal strings.

texfonts.map

Filename mapping definitions.

**.tfm* Metric files for e- \TeX 's fonts.

**.fmt* Predigested e- \TeX format (*.fmt*) files.

NOTES

Starting with version 1.40, pdf \TeX incorporates the e- \TeX extensions, so in this installation e \TeX is just a symbolic link to pdf \TeX . See **pdf \TeX (1)**. This manual page is not meant to be exhaustive. The complete documentation for this version of e- \TeX can be found in the info manual *Web2C: A \TeX implementation*.

BUGS

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

This version of e- \TeX 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.

SEE ALSO

pdf \TeX (1), **tex(1)**, **mf(1)**.

AUTHORS

e- \TeX was developed by Peter Breitenlohner (and the NTS team).

\TeX was designed by Donald E. Knuth, who implemented it using his 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 to C system (**web2c**), originally written by Tomas Rokicki and Tim Morgan.

The enc \TeX extensions were written by Petr Olsak.