

The teTeX distribution

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20.07.2003

1 teTeX - short overview

- a software distribution of programs (T_EX+friends) and runtime files
- completely free software
- first version released 1994 (0.2.1 for Linux)
- current version 2.0.2 (Feb. 2003)
- runs on most UNIX systems; win32 port by Fabrice Popineau

2 Design goals

The te \TeX system was designed to be

- free software
- reasonably complete for most \TeX users
- easy to install (even without sysad rights)
- easy to customize to local setup (hyphenation, fonts, paper format, printers)
- easy to maintain in large and heterogeneous installations: multi-platform, writable and read-only directory trees, local fonts/macros or other additions
- good documented and documentation easily available

3 te \TeX 2.0.2 - programs

- web2c 7.4.5 (e.g. \TeX 3.14159, METAFONT 2.7182, Bib \TeX 0.99c, METAPOST 0.641)
- pdf \TeX 1.10b, e- \TeX 2.1, Omega 1.23.2.1
- xdvik 22.40v, dvipsk 5.92b, dvi \lj k 2.6p2, dvi \p dfm 0.13.2c, ps2 \p k 1.5
- makeindex 2.14, texinfo 4.5, texdoctk, epstopdf
- texconfig, updmap, fmtutil/texlinks

4 **teX_E 2.0.2 - runtime/support files**

- 11400 files, 63 MB documentation, 58 MB fonts/metrics, 23 MB macros
- $\text{\LaTeX} 2_{\epsilon}$ <2001/06/01>, Context 2003.1.31, plain \TeX 3.14159265, texinfo 2003-02-03.16, AMSTeX
- special fonts and macro packages for e.g. Polish, Czech, Cyrillic, Greek
- PS Type1 fonts (>500 files): e.g. base35 (urw), Antykwa-Poltawskiego, AntykwaTorunska, Bitstream Charter

5 texconfig

- shell script with curses based user interface
- configuration for format files: mapping to T_EX engines and hyphenation setup
- allows to setup the most important driver settings: default papersize, metafont mode / resolution, dvips printer definitions
- customization of destination directories for automatic font generation
- configuration files can be stored outside the distribution directories (\Rightarrow \$VARTEXMF)

6 `fmtutil` / `texlinks`

- shell scripts which store their configuration in one common file (`fmtutil.cnf`)
- `fmtutil` generates format files for $\text{T}_{\text{E}}\text{X}$ -engines, METAFONT and METAPOST
- supported $\text{T}_{\text{E}}\text{X}$ -engines: `tex`, `etex`, `pdftex`, `pdfetex`, `omega`, `eomega`
- supports localised pool files
- `texlinks` creates symlinks, e.g. `latex` \rightarrow `etex`

- texlinks creates wrapper scripts for CS-(La)T_EX-formats (to pass -default-translate-file parameter)
- special case for Context formats (to avoid clashes with perl-scripts)

7 updmap

- tries to hide map file complexity from T_EX-users
- supports dvips, pdftex, dvipdfm, xdvi, gsftopk, ps2pk
- internal handling of the “base 35” fonts
- provides a simple command line interface e.g. for adding a map file
- supports “downloading” of standard fonts (dvips, pdftex, dvipdfm)

8 Development

- the percentage of components maintained by me is very small
- updating the texmf tree is a manual task, although some steps are already automated
- my aim has always been to pass changes to upstream maintainers; that minimizes manual steps if some component needs updating

9 Relationship to web2c / TeX Live

- T_EXLive has an online repository allowing read/write access for me and Olaf Weber (current web2c maintainer)
- pdfT_EX, dvips and (hopefully soon!) Omega are developed in the T_EXLive repository, so no integrational work is needed for updating them
- no component has more than one responsible maintainer, so code is copied, but development is not duplicated
- the current framework allows copying of files without any need for hand-editing; different defaults (e.g. for

using bin/platform instead of just bin; using fmtutil or not) are passed down from top-level

10 Forecast

- very soon: web2c-7.5.x (with new tex.web), e- \TeX 2.2, new Omega, pdf \TeX 1.11a, xdvik-22.76
- very soon: add LM fonts
- add dvipdfmx(?)
- automatic way to update the texmf tree from CTAN; benefit for me as maintainer and for users
- restructuring the inter-dependencies of kpathsea / web2c / drivers; the plan is to use automake (almost) every-

where. That should ease the process of making unbundled releases e.g. of drivers.