emTEX: TeX for OS/2, PC-DOS and MS-DOS

Eberhard Mattes
(shortened, and with additions by UK TEX Archive
edited by Sebastian Rahtz)

25-Sep-1990, with modifications of 06-Oct-1991
additions 8 April 92 & 26 February 1993

Contents

1 Preliminary remarks on the documentation

This document is a typeset version of the machine readable files `readme.eng` or `readme.ger`, prepared by the UK TEX Archive. Changed sections are noted by changebars in the margin.

In order to use TEX or LATEX, familiarity with the 'programming language' TEX or LATEX, respectively, is required. Thus in general the reading of [1], [2], [5] or [7] is unavoidable. As a brief introduction for beginners the LATEX brief introduction of H. Partl (in German) may be used; it can be found on the disk after the installation of emTEX (details below). It cannot be used as a substitute for [2] or [5], however. Experience shows that trying to save time by not reading the documentation fails. This is especially true with TEX.

1.1 Book list

'Original works':

1. Donald E. Knuth: The TEX book

   The standard work on TEX and plain TEX (in English).

2. Leslie Lamport: LATEX: A Document Preparation System

   The standard work for LATEX (in English). Supplemented by `\emtex\texinput\local.tex` and/or `\emtex\doc\local.dvi`.

3. Donald E. Knuth: The METAFONT book

   The standard work for METAFONT (in English).

4. Michael J. Wichura: The PICTEX Manual

   Manual for PICTEX (in English). Obtainable (cost: $30) from the TeX User's Group:

   TEX Users Group
P. O. Box 869,
Santa Barbara, CA 93102,
USA
telephone=805-899-4673
email=Internet: TUGboat@Math.AMS.org

Further Books:

5. Helmut Kopka: LATEX Eine Einführung

   A manual for LATEX in German.

6. Norbert Schwarz: Eine Einführung in TEX

7. Norbert Schwarz: Introduction to TEX

2 Introduction

emTEX consists among others in the following:

TEX The well-known text system by Donald E. Knuth

LATEX The well-known macro package for TeX by L. Lamport

METAFONT 'font compiler' by Donald E. Knuth

dvidrv Printer driver and Screen Previewer

TEXcad A program for drawing LaTeX picture environments

All programs but TEXcad can be used under DOS as well as OS/2. TEXcad can be used only under DOS or in DOS mode of OS/2.

The dvidrv printer drivers support the following printers:

HP LaserJet+, HP LaserJet II, HP LaserJet III
HP DeskJet, HP DeskJet+
Kyocera F-1010
NEC P6, P7, P2200
EPSON LQ, FX, and RX series
Panasonic KX-P1124
Apple Imagewriter
C.ITOH 8510A
Tandy DMP-130
. . . and many more dot matrix printers

emTEX consists of several packages. Each single package is provided in the form of zip files, which have to be unpacked with the program pkunzip, which is also provided. Many packages are spread over several zip files, so that DSDD diskettes can be used. (But fonts are available only on HD diskettes.) The package DVIDRV, for example, is found in the files dvidrv1.zip, dvidrv2.zip, and dvidrv3.zip. On the other hand, the package PICTEX is found in the single file pictex.zip.

Details of the packages are given in Table 1.

3 Diskettes

On delivery on HD diskettes (1.44 MB), the diskettes contain the following files:

Diskette 1	pkz102.exe	Compression program (self-unpacking program).
	pkunzip.exe	Unpacking program (from pkz102.exe).
	delete.exe	File deleting program.
	remove.exe	Package removing program.
	readme.eng	This file.
	readme.ger	German version of this file.
	help.eng	Frequently asked questions with answers (English).
	help.ger	Frequently asked questions with answers (German).
	changes.eng	Changes from older versions (English).
	changes.ger	Changes from older versions (German).
	changes.pre	Changes between the pre-releases of emTeX (German).
	tex1.zip	TEX package, Part 1/2.
	tex2.zip	TEX package, Part 2/2.
	latex1.zip	LATEX package, Part 1/2.

Diskette 2	latex2.zip	LATEX package, Part 2/2.
	texware.zip	TEXWARE package.
	web.zip	WEB package.
	btex1.zip	BTEX package, Part 1/2.
	btex2.zip	BTEX package, Part 2/2.
	bmf1.zip	BMF package, Part 1/2.
Diskette 3	mfware1.zip	MFWARE package, Part 1/2.
	mfware2.zip	MFWARE package, Part 2/2.
	mf1.zip	MF package, Part 1/3.
	mf2.zip	MF package, Part 2/3.
	mf3.zip	MF package, Part 3/3.
	mfjob.zip	MFJOB package
Diskette 4	gtex.zip	GTEX package.
	glatex.zip	GLATEX package.
	gbtex.zip	GBTEX package.
	gblatex.zip	GBLATEX package.
	texcad.zip	TEXCAD package.
	emsy.zip	EMSY package.
	pkedit.zip	PKEDIT package.
	misc_mf.zip	MISC_MF package.
	bibtex.zip	BIBTEX package.
	makeindx.zip	MAKEINDX package.
	pictex.zip	PICTEX package.
	dvidrvma.zip	DVIDRVMA package.
	lkurz.zip	LKURZ package.
Diskette 5	dvidrv1.zip	DVIDRV package, Part 1/3.
	dvidrv2.zip	DVIDRV package, Part 2/3.
	bmf2.zip	BMF, Part 2/2.
	latexdoc.zip	LATEXDOC package.
	blatex.zip	BLATEX package.
	dvidrv3.zip	DVIDRV package, Part 3/3.

4 Directions for pkunzip

The program pkunzip is part of a program package from PKWARE. It is installed as follows on a disk (for example in the directory `c:\pk`):

```
md c:\pk
a:pkz102 c:\pk
```

These lines mean the following:

```
md c:\pk        Make the directory
a:pkz102        Load the self-unpacking program on drive a:
c:\pk           Target directory
```

Please observe the license conditions at the end of manual.doc (contained in pkz102.exe)!
The contents of a zip file (here dvidrvma.zip) can be displayed as follows:

```
pkunzip -vb a:dvidrvma
```

Table 1: List of Packages

Package	Description	Requires	Optional	Files	Size
BIBTEX	BibTeX (Bibliography database for LaTeX)	LATEX	—	11	323
BLATEX	LaTeX for bigTeX (extra big LaTeX)	TEX, BTEX, LATeX	—	7	510
BMF	bigMETAFONT (extra big METAFONT)	MF	—	11	1043
BTEX	bigTeX (extra big TeX)	TEX	BLATEX	9	986
DVIDRV	Printer drivers and previewers (dvidrv)	—	TEX	106	1491
DVIDRVMA	Manual for the dvidrv drivers	DVIDRV, (EMSY)	—	29	511
EMSY *)	Special fonts of/for em	MF, TEX	LATEX	19	25
GBLATEX	LaTeX for bigTeX (German hyphenation patterns)	TEX, BTEX, GTEX, LATEX, BLATEX, GLATEX	—	7	541
GBTEX	bigTeX (German hyphenation patterns)	TEX, BTEX, GTEX	GBLATEX	5	316
GLATEX	LaTeX (German hyphenation) and brief LaTeX intro.	LATEX, GTEX	—	8	421
GTEX	Files for typesetting German texts	TEX	GLATEX	12	279
LATEX	LaTeX (to be more exact: IILaTeX)	TEX	DVIDRV	73	1074
LATEXDOC *)	doc files (documented sty files; obsolete)	LATEX	—	26	324
LKURZ *)	Source text for the brief LaTeX intro (German)	LATEX	—	7	94
MAKEINDX	MakeIndx (to sort LaTeX index)	LATEX	—	5	120
MF	METAFONT	MFWARE	—	191	1868
MFWARE	Auxiliary programs for METAFONT	MF	TEX, PKEDIT	44	759
MISC_MF *)	Various font source texts	METAFONT	—	5	134
PICTEX	PiCTeX (graphic macros for TeX)	TEX	BLATEX (required for LaTeX)	5	147
PKEDIT	Font editor	—	MFWARE	4	100
TEX	emTeX (plain TeX)	—	DVIDRV	104	1110
TEXCAD	TeXcad (drawing program for LaTeX picture environment)	—	—	18	244
TEXWARE	Auxiliary programs for TeX	TEX	—	11	439
WEB *)	The WEB programming system (TANGLE, WEAVE, . . .)	TEX	—	7	255

The packages with *) are usually not installed.

These lines have the following meaning:

```
pkunzip         Call the unpacking program
-vb             List the contents of a zip file (brief listing)
a:dvidrvma      zip file
```

5 Installation

First read this file (a shortened version of `readme.eng` or `readme.ger`, which you should also look at) in its entirety. Then you should read the license conditions at the end of manual.doc (contained in pkz 102.exe) for pkzip/pkunzip. (And follow the conditions.)

For the installation, the program pkunzip.exe should be copied onto the disk. A directory should be used that is in the path for executables (PATH). For OS/2 users: There is also an OS/2 version of pkzip/pkunzip, but this is not supplied with emTEX. If you do not have this, you have to use pkunzip in the DOS compatibility environment, or use the public domain `unzip` program.

All of the following examples assume that emTEX is to be installed on drive c: (You can however install emTEX on another disk, if there is enough space.) In case an older version of emTEX is already installed on the disk, this should first be removed. First the files you have modified should be saved (usually only batch and configuration files). Moreover, before removing emTEXfrom the disk, the diskettes should be checked for readability, for example with

```
pkunzip -t a:*
```

These lines have the following meaning:

```
pkunzip         Call the unpacking program
-t              Check the zip files
a:*             All the zip files on drive a:
```

The removal of emTEX is done with the program delete, which is supplied on the first diskette. This is done as follows (drive c:):

```
a:delete -sd c:\emtex\*.*
```

These lines have the following meaning:

```
a:              Load the program from diskette (first diskette!)
delete          Call the file deletion program
-s              Also delete in subdirectories
-d              Remove directories
c:\emtex\*.*    Files to be removed
```

Since by this procedure all files in the directory `\emtex` and in all subdirectories of this directory will be deleted, you should not use this directory for your own files!

Now the individual packages can be installed. The following packages are usually installed (the packages in parentheses do not have to be installed):

TEX:	TEX, DVIDRV, (PICTEX), (TEXWARE)
LATEX:	TEX, DVIDRV, LATEX, (BIBTEX), (TEXWARE), (MAKEINDX)
METAFONT:	MF, MFWARE, (PKEDIT), (TEX)

For example, to install the package LATEX from drive a: onto disk c:, the following should be entered:

```
pkunzip -d -o a:latex? c:\
```

This line means the following:

```
pkunzip        Call the unpacking program
-d             Use directories stored in zip file
-o             Overwrite existing files
a:latex?       Unpack the package LATEX (latex1.zip, ...)
c:\            Target path
```

In this way the files will automatically be copied into the right directories. After installation you should read (or print and read) the following files:

```
\emtex\doc\english\texware.doc  (TEX package, English)
\emtex\doc\german\texware.doc   (TEX package, German)
\emtex\doc\english\dvidrv.doc   (DVIDRV package, English)
\emtex\doc\german\dvidrv.doc    (DVIDRV package; do not print out; see below!)
```

Moreover, the license conditions in the following files should be observed:

```
\emtex\doc\makeindx.cpy         (MAKEINDX package)
\emtex\texinput\ghyphen.min     (GTEX package)
\emtex\texinput\ghyphen.max     (GTEX package)
```

If you have installed the package DVIDRV and have followed the directions in the part 'Installation of the printer driver and screen previewer' of this file, then you should install the package DVIDRVMA. This enables you to print out the 'real' manual for the package DVIDRV (as opposed to dvidrv.doc), if you have available a suitable printer. After printing the manual you can again delete the files taken from DVIDRVMA (see below). If you cannot, or do not want to, print the dvidrv manual, then you have to content yourself with the indications in dvidrv.doc.

After the installation of DVIDRV you can print out the other instructions (or look at them on the screen). Reading

```
\emtex\doc\english\emtex.dvi  (TEX package)
\emtex\doc\local.dvi          (LATEX package)
```

is especially recommended.

In order to use TeX or METAFONT, various environment variables still have to be set; see the section 'Environment Variables' further below in this file.

If you want to use LaTeX together with PICTeX, then bigTeX has to be used. This is a bigger (but slower) version of emTeX. At present only a preliminary version is available.

A brief introduction to LaTeX in German is found in the package GLATEX. Among the files delivered is the macro package german.sty of H. Partl; if you want to typeset German or other non-English texts with TeX or LaTeX, you should read the corresponding instruction `\emtex\doc\germdoc.dvi`.

Since there are some files which you will not need, you should write a batch file to delete the ones not needed. In this way you can save some work in the next installation of emTeX. For example, if you work under DOS, you will not need the OS/2 versions of TeX and METAFONT. It is also possible to extract single files from a zip file; see manual.doc in pkz102.exe. Example:

```
pkunzip -d a:pkedit c:\ emtex\pkedit.exe
```

This line means the following:

```
pkunzip            Call the unpacking program
-d                 Use directories stored in zip file
a:pkedit           Unpack the package PKEDIT
c:\                Target path
emtex\pkedit.exe   File name (without leading backslash!)
```

You'll find some frequently asked questions with answers in the file help.eng (and help.ger) on the first diskette.

6 Removing a package

You can remove a package from the hard disk if the appropriate REM file is supplied — these files appear in emTEX sets made available after 2nd May 1990. To remove a package the program ‘remove’, on the first disk, is needed. If, for example, you want to remove the DVIDRVMA package from the C: drive you would enter the following commands:

```
a:remove c:\emtex\remove\dvidrvma.rem c:\
```

where

```
a:          load the program from the first disk
remove      run the package removal program
c:\emtex\remove\dvidrvma.rem
            the list of files comprising the package
c:\         remove the package from this disk
```

7 Directories

The following directories are created during the installation (see also emtex.dvi, local.dvi, texware.doc, and mfware.doc):

`\emtex`
: Programs, batch files, and configuration files.

`emtex\doc`
: Instructions and Manuals. The texts in this directory are available in only one language (English or German).

`emtex\doc\english`
: English Instructions and Manuals.

`emtex\doc\german`
: German Instructions and Manuals.

`emtex\doc\gr180`
: Graphic files for the dvidrv manual (180 DPI).

`emtex\doc\gr300`
: Graphic files for the dvidrv manual (300 DPI).

`emtex\doc\gr360`
: Graphic files for the dvidrv manual (360 DPI).

`emtex\texfmts`
: TEX format files (macro packages in a fast-loading format; for example, plain and LATEX) and tex.poo.

`emtex\btexfmts`
: bigTEX format files (macro packages in a fast-loading format; for example, plain and LATEX) and tex.poo.

`emtex\tfm`

tfm files (TEX font metrics; font descriptions).

`emtex\texinput`
: Texts which will be read by TEX (and BIBTEX).

`emtex\bibinput`
: Bibliography database for BIBTEX.

`emtex\mfinput`
: Texts which will be read by METAFONT (and MFT).

`emtex\mfbases`
: METAFONT base files (macro packages in a fast-loading format; for example plain and cm) and mf.poo.

`emtex\bmfbases`
: bigMETAFONT base files (macro packages in a fast-loading format; for example plain and cm) and mf.poo.

`emtex\mfjob`
: mfj files (see MFjob).

`emtex\remove`
: Package contents listings used by the remove program.

8 Environment variables and config.sys

In this section it is assumed that TEX has been installed on drive C:.

You should set the environment variables for TEX as follows:

```
set texinput=c:\emtex\texinput
set tfm=c:\emtex\tfm
set texfmt=c:\emtex\texfmts
set btexfmt=c:\emtex\btexfmts        (only for bigTeX)
set textfm=c:\emtex\tfm
set bibinput=c:\emtex\bibinput
```

The environment variables for METAFONT and MFjob are set as follows:

```
set mfinput=c:\emtex\mfinput
set mfbas=c:\emtex\mfbases
set bmfbas=c:\emtex\bmfbases         (only for bigMETAFONT)
set mfjob=c:\emtex\mfjob
```

In addition, the directory `c:\emtex` should be put in the search path, for example:

```
path c:\bin;c:\emtex
```

All of these lines should be put in the file autoexec.bat (file config.sys for OS/2). The file `\emtex\set-tex.bat` (`\emtex\set-tex.cmd` in OS/2) can be used as a model, or modified and called by autoexec.bat. If the computer complains about not enough environment space, you should consult your DOS manual concerning the SHELL command in the config.sys file and concerning the /E and /P options of the program COMMAND.COM.

If you put all emTEX directories on ONE drive and if the directories are organzied as recommended (and as stored in the zip files), it will be sufficient to set the environment variable EMTEXDRV (besides PATH):

```
set emtexdrv=c
```

This causes all programs (but dvidrv) to use the default directories on drive C:.
The config.sys file should specify at least

```
FILES=20
BUFFERS=20
```

greater values are allowed.
Under OS/2, the line

```
IOPL=YES
```

is required in config.sys for dviscr and pkedit.

9 Installation of the printer drivers and the screen previewers

1. Install the DVIDRV package.

2. Copy the fonts to the disk. For example, to install them on drive d: do as follows:

   ```
   md d:\texfonts
   copy a:*.fli d:\texfonts
   ```

   The last line has to be repeated for all suitable font diskettes. The fonts should if possible not be put into a directory under `\emtex`, in order to simplify the installation of a new version of emTEX (that is, without having to copy the fonts again to the disk).

3. The following environment variables should be set:

   ```
   dvidrvinput          Search path for dvi files.
   dvidrvfonts          Search path for fli files.
   dvidrvgraph          Search path for graphic files.
   ```

   For example, this can be done by

   ```
   set dvidrvinput=c:\mytex;c:\emtex\doc
   set dvidrvfonts=d:\texfonts
   set dvidrvgraph=c:\mytex;c:\emtex\doc\gr$r
   ```

   The directory `c:\emtex\doc` resp. `c:\emtex\doc\gr$r` is used for printing the dvidrv manual. The value stored in DVIDRVFONTS will have the following appended to it by prtp6l.bat, for example ($r will be replaced by the resolution):

   ```
   \pixel.p6l\$rdpi
   ```

   Therefore only a directory should be given, and this must not end with a `\`. All these lines should be put in the file autoexec.bat (for OS/2 config.sys). `\emtex\set-tex.bat` or `\emtex\set-tex.cmd` can be used as models, or modified and called by autoexec.bat. Important: $r and $s must be written in small letters. If you don't want to set the environment variables (or if you cannot), you have to insert the desired directories into the configuration files (*.cnf) after renaming.

4. To use dviscr under OS/2, you should insert the line

```
IOPL=YES
```

into config.sys. If you don't need the OS/2 spooler, you should disable it.

5. Now the following batch files can be used:

v Screen previewer (dviscr).

vs Screen previewer (dviscrs).

prthplj Printer driver (dvihplj: HP LaserJet+).

prthplj /od Printer driver (dvihplj: HP DeskJet).

prthplj /ok Printer driver (dvihplj: Kyocera F-1010).

prtp6l Printer driver (dvidot p6l: P6 with 180 DPI).

prtp6m Printer driver (dvidot p6m: P6 with 360x180 DPI).

prtp6h Printer driver (dvidot p6h: P6 with 360 DPI).

prtfx Printer driver (dvidot fx: EPSON FX-80).

prtlql Printer driver (dvidot lql: EPSON LQ, 180 DPI).

prtlqm Printer driver (dvidot lqm: EPSON LQ, 360x180 DPI).

prtlqh Printer driver (dvidot lqh: EPSON LQ, 360 DPI).
Note: not all LQ printers support 360 DPI.

prtitoh Printer driver (dvidot itoh: C.ITOH 8510A).

prtaiw Printer driver (dvidot aiw: Apple Imagewriter).

msplj Create graphic files (Parameters: lj.cnf)

mspp6l Create graphic files (Parameters: p6l.cnf)

mspp6m Create graphic files (Parameters: p6m.cnf)

mspp6h Create graphic files (Parameters: p6h.cnf)

mspfx Create graphic files (Parameters: fx.cnf)

mspito Create graphic files (Parameters: ito.cnf)

If you have a version of DOS prior to 3.3, then you should change the first line of these batch files from

```
@echo off
```

to

```
echo off
```

The batch files v.cmd, v.bat and vs.bat use the configuration file lj.cnf (LJ fonts). If another configuration file is to be used, then these batch files have to be changed correspondingly. If you don't have the correct font files for your printer, the drivers can reduce the existing font files in certain cases (marked with * in the table below; loss of quality!). Gray mode is recommended for dviscr. Example: Use

```
@p6m.cnf /ox2
```

Table 2: Configuration files

File name	Resolution	Fonts	Font resolution
lj.cnf	300	LJ	300
p6l.cnf	180	P6L	180
p6l_p6m.cnf*	180	P6M	360x180
p6l_p6h.cnf*	180	P6H	360
p6m.cnf	360x180	P6M	360x180
p6m_p6h.cnf*	360x180	P6H	360
p6h.cnf	360	P6H	360
fx.cnf	240x216	FX	240x216
ito.cnf	160x144	ITO	160x144

instead of

```
@p6l_p6m.cnf
```

with dviscr. A table of configuration files is given in Table 2.

6. Justify the margins. This procedure is described in dvidrv.doc under /la#. The /la# and /ta# options should be put in the respective prt*.cmd/bat files.

7. If you're using a NEC P7, EPSON FX-100 or another wide (13.6") printer, you have to modify the batch files prt*.cmd resp. prt*.bat. Examples: prtfx.bat/cmd:

```
old:    dvidot fx80 @fx.cnf /po=prn %1 %2 %3 %4 %5 %6 %7 %8 %9
new:    dvidot fx100 @fx.cnf /po=prn %1 %2 %3 %4 %5 %6 %7 %8 %9
```

prtlql.bat/cmd:

```
old:    dvidot lql @p6l.cnf /po=prn %1 %2 %3 %4 %5 %6 %7 %8 %9
new:    dvidot lqwl @p6l.cnf /po=prn %1 %2 %3 %4 %5 %6 %7 %8 %9
```

prtp6h.bat/cmd:

```
old:    dvidot p6h @p6h.cnf /po=prn %1 %2 %3 %4 %5 %6 %7 %8 %9
new:    dvidot p7h @p6h.cnf /po=prn %1 %2 %3 %4 %5 %6 %7 %8 %9
```

8. Print the dvidrv manual: Install the DVIDRVMA package and follow the instructions in dvidrvma.doc.

9. If you need (and have) the big fonts for SLiTEX, you have to change the configuration file(s) to include the extra font library file. Example (lj.cnf):

```
old: /pl=%DVIDRVFONTS%;lj_0;lj_h;lj_1;lj_2;lj_3;lj_4;lj_5a;lj_5b
new: /pl=%DVIDRVFONTS%;lj_0;lj_h;lj_1;lj_2;lj_3;lj_4;lj_5a;lj_5b;lj_sli
```

10 Further sources of information

The following files contain further information (dvi files can be looked at on the screen with a screen previewer, or printed with a printer driver):

`\emtex\doc\english\texware.doc` (TEX package, English)
`\emtex\doc\german\texware.doc` (TEX package, German)
Calling TEX and its associated programs.

`\emtex\doc\germdoc.dvi` (GTEX package, German, 4 pages)
Instructions for german.sty.

`\emtex\doc\english\emtex.dvi` (TEX package, English, 8 pages)
`\emtex\doc\german\emtex.dvi` (TEX package, German, 12 pages)
Instructions for emTEX.

`\emtex\doc\latex.bug` (LATEX package, English)
Changes and known mistakes in LATEX.

`\emtex\doc\local.gid` (LATEX package, English)
Ultra brief instructions for LATEX.

`\emtex\doc\local.dvi` (LATEX package, English, 20 pages)
Implementation specific instructions for LATEX.

`\emtex\doc\lkurz.dvi` (GLATEX package, German, 46 pages)
Brief instructions for LATEX by H.Partl.

`\emtex\doc\english\mfware.doc` (MF package, English)
`\emtex\doc\german\mfware.doc` (MF package, German)
Calling METAFONT and its associated programs.

`\emtex\doc\english\mfjob.doc` (MFWARE package, English)
`\emtex\doc\german\mfjob.doc` (MFWARE package, German)
Instructions for the MFjob program.

`\emtex\doc\english\dvidrvma.doc` (DVIDRVMA package, English)
`\emtex\doc\german\dvidrvma.doc` (DVIDRVMA package, German)
Instructions for printing the dvidrv manual.

`\emtex\doc\english\dvidrv.dvi` (DVIDRVMA package, English, 45 pp.)
`\emtex\doc\german\dvidrv.dvi` (DVIDRVMA package, German, 58 pages)
Manual for the dvidrv drivers.

`\emtex\doc\english\dvidrv.doc` (DVIDRV package, English)
`\emtex\doc\german\dvidrv.doc` (DVIDRV package, German)
Instructions for the dvidrv drivers.
Pay special attention to the end (changes with respect to earlier versions).

`\emtex\doc\english\fontlib.doc` (DVIDRV package, English)
`\emtex\doc\german\fontlib.doc` (DVIDRV package, German)
Instructions for the fontlib program.

`\emtex\doc\english\makedot.doc` (DVIDRV package, English)
`\emtex\doc\german\makedot.doc` (DVIDRV package, German)
Provisional instructions for makedot. This is a supplement to dvidot.doc.

`\emtex\doc\web.doc` (WEB package, German)

Calling the programs of the WEB system.

`\emtex\doc\english\pkedit.doc` (PKEDIT package, English)
`\emtex\doc\german\pkedit.doc` (PKEDIT package, German)
Instructions for the pkedit program.

`\emtex\doc\english\tcman.dvi` (TEXCAD package, English, 13 pages)
`\emtex\doc\german\tcman.dvi` (TEXCAD package, German, 14 pages)
The TEXcad manual.

`\emtex\texinput\webman.tex` (WEB package, English)
Manual for the WEB system.

`\emtex\texinput\makeindx.tex` (MAKEINDX package, English)
Instructions for MakeIndx.

`\emtex\doc\makeindx.doc` (MAKEINDX package, English)
Detailed instructions for MakeIndx.

`\emtex\doc\english\texchk.doc` (TEXWARE package, English)
`\emtex\doc\german\texchk.doc` (TEXWARE package, German)
Instructions for texchk.

11 File names in the emTEXsystem

.aux	Auxiliary file created and used by LATEX
.bak	Backup file (fontlib, pkedit)
.bas	Fast-loading file for METAFONT (no, not BASIC)
.bat	Batch file (DOS)
.bbl	Output file of BIBTEX
.bgi	Video graphics driver (used by TEXcad)
.bib	Bibliography database for BIBTEX
.blg	Transcript file (BIBTEX)
.bst	Bibliography style for BIBTEX
.bug	List of bugs
.ch	Change file (TANGLE, WEAVE and MFT)
.chr	Readable form of a pxl file (PXtoCH and CHtoPX)
.cmd	Batch file (OS/2)
.cnf	Configuration file for dvidrv
.dlg	Transcript file (dvidrv)
.doc	Instructions (straight text) or commented sty file
.dot	Parameter file for dvidot
.dvi	Device independent output of TEX
.err	Error messages and warnings (dvidrv)
.exe	Executable program
.fli	Font library file (dvidrv)
.fmt	Fast-loading file for TEX
.gf	Font file created by METAFONT (usually.#gf)
.gft	Default extension for the output of GFtype
.glo	LATEX auxiliary file for `glossary`
.idx	Index entries (created by LATEX)
.ilg	MakeIndx transcript file
.ind	Index entries (created by MakeIndx)
.lof	LATEX auxiliary file for `\listoffigures`

.log	Transcript file (TeX and METAFONT)
.lot	LaTeX auxiliary file for `\listoftables`
.mac	TeXcad macro file
.mf	Source text for a font
.mfj	Job file for MFjob
.mft	Style file for MFT
.msp	Graphic file
.opt	TeXcad parameters
.ovl	Overlay
.pas	Pascal source file (TANGLE)
.pcx	Graphic file
.pic	Picture environment created by TeXcad
.pk	Compressed font file
.pkt	Default extension for the output of PKtype
.pl	Readable form of a tfm file
.poo	String pool for INITEX or INIMF (pool file)
.pxl	Font file
.rem	Package contents listing for the remove program
.sty	Document style or document style option for LaTeX
.sub	Font substitution file (dvidrv)
.tcp	TeX code page (translation of code pages and special characters)
.tex	TeX text
.tfm	Symbol widths and other properties of a font (font metrics)
.toc	Notes of LaTeX for contents
.ver	List of program versions (TeXcad)
.vf	Virtual font (dvidrv, VFtoVP, VPtoVF)
.vpl	Readable form of a vf file (VFtoVP and VPtoVF)
.web	WEB source text (TANGLE and WEAVE)
.zip	Archive file (collection of compressed files)

(No claim as to completeness.)

12 File list

A complete list of files is given in `readme.eng` or `readme.ger`

13 Fonts

See `readme.eng` or `readme.ger` for a discussion of font magnifications and names

14 License

emTeX may only be distributed in UNCHANGED and COMPLETE form (all zip files, readme.eng and readme.ger!), and only when this is done WITHOUT CHARGE. If you want to distribute only parts of emTeX or if you want to charge a small fee for handling etc., you have to contact the author.

Please observe the license conditions for pkzip/pkunzip (see manual.doc in pkz102.exe)!

Please observe the directions in `\emtex\texinput\ghyphen.min` and `\emtex\texinput\ghyphen.max`!

Please observe the directions in `\emtex\doc\makeindx.cpy` (see also `\emtex\doc\english\texware.doc` and `\emtex\doc\german\texware.doc`)!

TeXcad is Shareware. Please observe the directions in `\emtex\doc\english\tcman.dvi`!

No guarantee is made as to the proper functioning of the programs. No liability will be admitted for damage resulting from using the programs.

Instead of a list: All the trademarks used in this document and all the other emTEX documents are registered to whoever it is that owns them.

15 The author

Address:

Eberhard Mattes
Teckstraße 81
D-7141 Möglingen
Federal Republic of Germany

Questions only by mail! No telephone calls please! Please inclose a self-addressed return package with postage if you expect a response.

Electronic mail (subject to sudden change):

`Internet:   mattes@azu.informatik.uni-stuttgart.de`

If you want support by telephone, obtain a commercial TEX package.

Frequently asked questions (and answers) will be found in help.eng and help.ger.

16 Reporting bugs

If you find a bug please tell the author so that it can be corrected. Please send the following information which is needed for the task:

- machine type (XT, AT, 386 etc.), CPU, BIOS, video card, printer (manufacturer and model), operating system and version number (note: SYSLEVEL command with OS/2). For instance: AT compatible, 286, Award, Paradise VGA, DeskJet+, IBM PC-DOS 3.3 .
- the text of the autoexec.bat and config.sys in use when the error occurred: if possible, with an explanation of the programs called and drivers installed that are not part of the operating system.
- emTEX version (date of issue)
- enough information for the error to be reproduced, if possible a disk (5.25" or 3.5") containing the appropriate files (see also dvidrv.doc).
- the dvidrv log file, if the error is in a driver
- the part of the printed output which shows the error, if the error is in a printer driver.

Please inclose a self-addressed return package with postage if you expect a response.

17 Changes from earlier versions (with regard to the installation)

A full list of changes can be found in `readme.eng` or `readme.ger`.

18 Betatest disk

This disk contains new versions of some of the emTEX packages. The tex386 package offers a conveniently large and fast TEX (in the latest 3.141 version), and the new versions of the drivers with MFJOB provide dynamic creation of fonts.

Diskette 6	tex386b8.zip	emTEX for 386 machines (large capacity, and fast)
	readme.tst	notes on beta-test files. PLEASE READ THIS!
	drv14s.zip	revised versions of dvi drivers
	mfjob111	MFJOB utility to accompany new drivers

19 Bonus disks from the UK TEX Archive

This distribution of the emTEX package by the UK TEX Archive has been enhanced by the addition of more packages which provide some commonly-requested facilities. These are *not* as well-tested, packaged and documented as emTEX itself, but should be useful to many PC-based TEX users. All These packages are supplied as .zip archives which are unpacked in exactly the same way as the emTEX ones. A `.rem` file is supplied for use with the `remove` utility.

bm2font A program to convert eg .PCX or .GIF files to TEX .pk fonts for inclusion in TEX documents without any need for special drivers.

dvips Tom Rokicki's dvips program, to translate .dvi files to PostScript. This is a reliable, sophisticated package, also available for Unix, VMS and VM/CMS systems. Full documentation is in the plain TEX document `\dvips.tex`. There are two copies of the program: `dvips.exe` for normal DOS use, and `dvipswin` for those with Microsoft Windows. Configuration files are placed in `\emtex\ps` and they assume that the font library files or .pk files are in `\texfonts\pixel.lj`. Font metric files are included for all the common POSTSCRIPT fonts.

The program source for dvips is in a separate package, *dvipssrc*.

morebin A selection of useful ancillary programs. Documentation is provided in the `emtex\doc` hierarchy.

wp2latex WordPerfect 5.0 to LATEX translator

dvi2tty ASCII viewer for dvi files

dviselec Write a subset of a dvi file to a new dvi file

dvidvi Rearrange pages of a dvi file

dviconca Join dvi files together

dvibook Rearrange pages of a dvi file

lacheck Syntax checker for LATEX documents

newlatex The version of emTEX is slightly out of date with respect to LATEX. This package provides new copies of all the LATEX source files for those who wish to be totally up to date. The files *overwrite* those in `\emtex\texinput`. This does *not* update your format files — the user has to run the `fmt.bat` batch files in eg `\emtex\texfmts`.

The package includes the NFSS: as part of the development of a new LATEX for the 1990s, this is the New Font Selection Scheme, by Frank Mittelbach and Rainer Schöpf. It replaces all the font declaration mechanisms in LATEX with a much more flexible system. The files are installed in `\emtex\base\nfss` which contains documentation etc. A new format file is placed in `\emtex\texfmts` which is called by a new command 'newlatex'; this is a version of LaTeX with the NFSS installed.

The newlatex package also includes the other Mittelbach/Schöpf packages (*multicol, array, theorem, ftnright,* and *verbatim*) which provide important extensions to LaTeX. The documentation for these is in the source directories under `emtex\base` for each package — you should run LaTeX on the `.drv` file and print the result. The pre-built style files themselves have been placed in `emtex\texinput` ready for use.

psnfss This package builds on the NFSS package by providing a complete drop-in system for using PostScript fonts with the NFSS, prepared by Sebastian Rahtz. This package is installed in `\emtex\psnfss`, with new style files in `\emtex\texinput`. Print the documentation file `psnfss.eps` before you start looking at this.

seminar A comprehensive LaTeX style package by Timothy van Zandt to produce overhead slides, performing all the same jobs as SLiTeX, but can be used with all normal LaTeX styles.

The packages are arranged on disk as follows:

Diskette 7	dvips	dvi to postscript driver
	mfb1	betatest 386 version of METAFONT
Diskette 8	newlatex	March 1992 versions of LaTeX files plus all Mittelbach/Schoepf packages (inc NFSS)
	psnfss	PostScript addition for New Font Selection Scheme
	morebin	extra programs for use with TeX
Diskette 9	bm2font	program to generate TeX fonts from graphics files
	seminar	macros by Timothy van Zandt to produce slides
	dvipssrc	program source of dvips driver
	ps2pk12	program to generate TeX pk files from Adobe Type1 fonts