

# The **epstopdf** package

Heiko Oberdiek  
<oberdiek@uni-freiburg.de>

2008/05/06 v1.7

## Abstract

This packages adds support of handling eps images to package **graphics** or **graphicx** with option **pdftex**. If an eps image is detected, **epstopdf** is automatically called to convert it to pdf format.

## Contents

<b>1</b>	<b>Documentation</b>	<b>2</b>
1.1	Introduction . . . . .	2
1.2	Requirements . . . . .	2
1.3	Usage . . . . .	2
1.4	Options . . . . .	3
1.5	Configuration . . . . .	4
1.5.1	Configuration file . . . . .	4
1.5.2	Conversion program . . . . .	4
1.6	Other image formats . . . . .	4
<b>2</b>	<b>Implementation</b>	<b>4</b>
2.1	Preparations . . . . .	4
2.1.1	Relead check and identification . . . . .	4
2.1.2	Catcodes . . . . .	5
2.1.3	Load packages . . . . .	6
2.2	Checks . . . . .	6
2.3	Package loading . . . . .	7
2.4	Options . . . . .	7
2.5	Make and verbose . . . . .	7
2.6	Adding conversion support . . . . .	8
<b>3</b>	<b>Test</b>	<b>10</b>
3.1	Preface for standard catcode check . . . . .	10
3.2	Catcode checks for loading . . . . .	10
<b>4</b>	<b>Installation</b>	<b>11</b>
4.1	Download . . . . .	11
4.2	Bundle installation . . . . .	12
4.3	Package installation . . . . .	12
4.4	Refresh file name databases . . . . .	12
4.5	Some details for the interested . . . . .	12
<b>5</b>	<b>History</b>	<b>13</b>
	[2001/01/06 v1.0] . . . . .	13
	[2001/02/04 v1.1] . . . . .	13
	[2006/02/20 v1.2] . . . . .	13
	[2006/08/26 v1.3] . . . . .	13
	[2007/04/26 v1.4] . . . . .	13

[2007/10/02 v1.5] . . . . .	13
[2007/11/11 v1.6] . . . . .	13
[2008/05/06 v1.7] . . . . .	14

<b>6 Index</b>	<b>14</b>
----------------	-----------

# 1 Documentation

## 1.1 Introduction

L<sup>A</sup>T<sub>E</sub>X provides its graphics bundle to include graphics files. Both packages `graphics` or `graphicx` may be used. the latter one loads the first and adds options in key value style for `\includegraphics`.

Usually the drivers do not support all kind of graphics files. Other image types must be converted, before they become usable. In case of driver `dvips`, the `graphics` rule may contain a conversion rule. Then all that package `graphics` must know is the bounding box, the command is passed to `dvips` that calls it and embeds the converted image.

However, pdf<sub>T</sub>E<sub>X</sub> has its driver for PDF output already build in. It's graphics inclusion commands (`\pdfximage`) does not allow the execution of external commands. Therefore commands in the last argument of `\DeclareGraphicsRule` were of no use. But external programs can be called within pdf<sub>T</sub>E<sub>X</sub>. This feature is called "shell escape" or "write 18" and must usually be enabled explicitly because of security reasons. Now, this package `epstopdf` hooks into package `graphics`' code to catch that argument with the external command and executes it to convert the graphics file to a supported format and passes the control of graphics inclusion back to package `graphics`.

## 1.2 Requirements

- The feature `\write18` must be enabled. This allows the running of external programs during T<sub>E</sub>X's compile run. Keep in mind that this is a security risk. The feature is an addition to T<sub>E</sub>X. MikT<sub>E</sub>X, teT<sub>E</sub>X, T<sub>E</sub>X Live support it. In Web2C based T<sub>E</sub>X distributions (teT<sub>E</sub>X, T<sub>E</sub>X Live) it can be enabled in the configuration file `texmf.cnf`:

```
shell_escape = 1
```

Because of the security risk, it is better to do it on the command line only:

```
--shell-escape (teTEX, TEX Live)
--enable-write18 (MiKTEX)
```

Example:

```
pdflatex -shell-escape test.tex
```

- The program `epstopdf` for the conversion from EPS to PDF. However, other programs can be used and configured by `\DeclareGraphicsRule`. Example:

```
\DeclareGraphicsRule{.eps}{pdf}{.pdf}{%
  'ps2pdf -dEPSCrop #1 \OutputFile
}
```

## 1.3 Usage

The package is loaded after `graphic{s,x}`, e.g.:

```
\usepackage[pdftex]{graphicx}
\usepackage{epstopdf}
```

Now images with file name extension `.eps` are detected and supported using `\includegraphics`.

If the graphics file name is explicitly specified with extension `.eps` the new rule for EPS files is called and the conversion performed. If option `update` is in force then the conversion step is dropped if the target file already exists and is not older than the EPS file.

The situation is more complicate if the graphics file is given without file name extension. Then the `graphics` package must search for a supported image file. The possible extensions are stored in the graphics extension list, that can be set by `\DeclareGraphicsExtensions`. The algorithm:

```
function search( <filebase> )   foreach <ext> in <graphics extensions>
    foreach <dir> in <current directory>, <\graphicspath>
        <file> := <dir> + <filebase> + <ext>
        if exist <file>           return found   return not found
```

Package `epstopdf` puts `.eps` at the end of the graphics extension list. This is the behaviour of option `append` that is enabled by default. That means, the conversion is called last unless a supported file type cannot be found earlier. This avoids unnecessary conversion steps that slow down the  $\text{\LaTeX}$  run. If you want to use option `update` and your `pdfTeX` supports it, then an outdated PDF file also would be found earlier. Therefore extension `.eps` should be put in front of the list. This is achieved by option `prepend`. Then the EPS file is found before the PDF file. Then option `update` have the control and can compare file dates.

Note: Usually the conversion program needs the exact location of the image file. Usually the current directory works. Also if the image file is found using `\graphicspath`, the location is known. However, if the image is somewhere in a directory of environment variable `TEXINPUTS`, then the package does not know the exact location and the conversion program will not find the image file unless it implements a search using `TEXINPUTS` (program `kpsewhich` may be of help in this task).

## 1.4 Options

Options can be given as package options or later using:

`\epstopdfsetup {<key value list>}`

**update:** The conversion program is only called, if the target file does not exist or is older than the source image file.

**append:** Puts the extension `.eps` at the end of the graphics extension list (default).

**prepend:** Puts the extension `.eps` at the begin of the graphics extension list.

**outdir:** The converted file may put in an other output directory. The value of `outdir` must include the directory separator. Example for the current directory:

```
\epstopdfsetup{outdir=./}
```

For other directories ensure, that they can be found. See `\graphicspath` or `TEXINPUTS`.

**verbose:** It prints some information about the image in the `.log` file.

## 1.5 Configuration

### 1.5.1 Configuration file

A configuration file `epstopdf.cfg` is loaded at the end of the package if it exists. It can be used for changing the default option setting. My favourite setting is:

```
\epstopdfsetup{update,prepend,verbose}
```

### 1.5.2 Conversion program

You can use `\DeclareGraphicsRule` the same way as the route via `dvips` to specify the conversion command line, examples below.

Additionally you can use the following macros:

`\OutputFile:` : output file name (with known path and extension)

`\SourceFile:` : source file name (with known path and extension), usually the same as `#1`.

**Conversion from EPS to PDF.** Other programs than `epstopdf` can be used to convert from EPS to PDF. Example that uses `Ghostscript`:

```
\DeclareGraphicsRule{.eps}{pdf}{.pdf}{%  
  'ps2pdf -dEPSCrop #1 \noexpand\OutputFile  
}
```

`\DeclareGraphicsRule` expands the argument, therefore `\noexpand` is necessary. Also `\OutputFile` respects the setting of option `outdir`.

## 1.6 Other image formats

The support that package `epstopdf` implements is not limited to EPS files. Other image conversions can be declared. The following example shows it for GIF images under Unix with ImageMagick's `convert`:

```
\DeclareGraphicsRule{.gif}{png}{.png}{%  
  'convert #1 \noexpand\OutputFile  
}
```

The file extension `.gif` can be added to the extension list that package `graphics` searches if the file extension is not given in `\includegraphics`. The list can be set by `\GraphicsExtensions`.

```
\AppendGraphicsExtensions{.gif}  
or  
\PrependGraphicsExtensions{.gif}
```

## 2 Implementation

```
1 (*package)
```

### 2.1 Preparations

#### 2.1.1 Relead check and identification

Reload check, especially if the package is not used with `LATEX`.

```
2 \begingroup  
3 \catcode44 12 % ,  
4 \catcode45 12 % -  
5 \catcode46 12 % .  
6 \catcode58 12 % :  
7 \catcode64 11 % @
```

```

8 \expandafter\let\expandafter\x\csname ver@epstopdf.sty\endcsname
9 \ifcase 0%
10 \ifx\x\relax % plain
11 \else
12 \ifx\x\empty % LaTeX
13 \else
14 1%
15 \fi
16 \fi
17 \else
18 \catcode35 6 % #
19 \catcode123 1 % {
20 \catcode125 2 % }
21 \expandafter\ifx\csname PackageInfo\endcsname\relax
22 \def\x#1#2{%
23 \immediate\write-1{Package #1 Info: #2.}%
24 }%
25 \else
26 \def\x#1#2{\PackageInfo{#1}{#2, stopped}}%
27 \fi
28 \x{epstopdf}{The package is already loaded}%
29 \endgroup
30 \expandafter\endinput
31 \fi
32 \endgroup

```

Package identification:

```

33 \begingroup
34 \catcode35 6 % #
35 \catcode40 12 % (
36 \catcode41 12 % )
37 \catcode44 12 % ,
38 \catcode45 12 % -
39 \catcode46 12 % .
40 \catcode47 12 % /
41 \catcode58 12 % :
42 \catcode64 11 % @
43 \catcode123 1 % {
44 \catcode125 2 % }
45 \expandafter\ifx\csname ProvidesPackage\endcsname\relax
46 \def\x#1#2#3[#4]{\endgroup
47 \immediate\write-1{Package: #3 #4}%
48 \xdef#1{#4}%
49 }%
50 \else
51 \def\x#1#2[#3]{\endgroup
52 #2[#3]}%
53 \ifx#1\relax
54 \xdef#1{#3}%
55 \fi
56 }%
57 \fi
58 \expandafter\x\csname ver@epstopdf.sty\endcsname
59 \ProvidesPackage{epstopdf}%
60 [2008/05/06 v1.7 Conversion with epstopdf on the fly (H0)]

```

### 2.1.2 Catcodes

```

61 \begingroup
62 \catcode123 1 % {
63 \catcode125 2 % }
64 \def\x{\endgroup
65 \expandafter\edef\csname ETE@AtEnd\endcsname{%

```

```

66      \catcode35 \the\catcode35\relax
67      \catcode64 \the\catcode64\relax
68      \catcode123 \the\catcode123\relax
69      \catcode125 \the\catcode125\relax
70  }%
71 }%
72 \x
73 \catcode35 6 % #
74 \catcode64 11 % @
75 \catcode123 1 % {
76 \catcode125 2 % }
77 \def\TMP@EnsureCode#1#2{%
78   \edef\ETE@AtEnd{%
79     \ETE@AtEnd
80     \catcode#1 \the\catcode#1\relax
81   }%
82   \catcode#1 #2\relax
83 }
84 \TMP@EnsureCode{33}{12}% !
85 \TMP@EnsureCode{39}{12}% '
86 \TMP@EnsureCode{42}{12}% *
87 \TMP@EnsureCode{44}{12}% ,
88 \TMP@EnsureCode{45}{12}% -
89 \TMP@EnsureCode{46}{12}% .
90 \TMP@EnsureCode{47}{12}% /
91 \TMP@EnsureCode{58}{12}% :
92 \TMP@EnsureCode{60}{12}% <
93 \TMP@EnsureCode{61}{12}% =
94 \TMP@EnsureCode{62}{12}% >
95 \TMP@EnsureCode{96}{12}% '

```

### 2.1.3 Load packages

```

96 \RequirePackage{infwarerr}[2007/09/09]
97 \RequirePackage{grfext}\relax
98 \RequirePackage{kvoptions}[2007/10/02]
99 \RequirePackage{pdftexcmds}[2007/11/11]

```

## 2.2 Checks

Check, whether package graphics is loaded (also graphicx loads graphics). Because miniltx.tex does not know \ifpackageloaded we test for \Gin@setfile instead.

```

100 \begingroup\expandafter\expandafter\expandafter\endgroup
101 \expandafter\ifx\csname Gin@setfile\endcsname\relax
102   \@PackageWarningNoLine{epstopdf}{%
103     No graphics package \string'graphic{s,x}\string' loaded%
104   }%
105   \newcommand*{\epstopdfsetup}[1]{}%
106   \ETE@AtEnd
107   \expandafter\endinput
108 \fi

```

Check, whether pdftex.def is loaded. \ver@pdftex.def is not available with miniltx.tex, thus we test for \Gin@driver.

```

109 \begingroup
110   \def\x{pdftex.def}%
111   \ifx\Gin@driver\x
112   \else
113     \@PackageWarningNoLine{epstopdf}{%
114       Graphics driver file \string'pdftex.def\string' not loaded%
115     }%
116   \endgroup
117   \newcommand*{\epstopdfsetup}[1]{}%
118   \ETE@AtEnd

```

```

119     \expandafter\endinput
120   \fi
121 \endgroup
    Check, whether the shell escape feature is enabled.
122 \begingroup
123   \expandafter\ifx\csname pdf@shellescape\endcsname\relax
124   \else
125     \ifnum\pdf@shellescape>0 %
126     \else
127       \@PackageWarningNoLine{epstopdf}{%
128         Shell escape feature is not enabled%
129       }%
130     \fi
131   \fi
132 \endgroup

```

## 2.3 Package loading

## 2.4 Options

```

133 \SetupKeyvalOptions{family=ETE,prefix=ETE@}
134 \DeclareBoolOption{update}
135 \DeclareBoolOption{verbose}
136 \newif\ifETE@prepend
137 \DeclareVoidOption{prepend}{\ETE@prependtrue}
138 \DeclareVoidOption{append}{\ETE@prependfalse}
139 \DeclareStringOption{outdir}
140 \ProcessKeyvalOptions*
141 \newcommand*{\epstopdfsetup}{\setkeys{ETE}}

```

## 2.5 Make and verbose

```

142 \begingroup\expandafter\expandafter\expandafter\endgroup
143 \expandafter\ifx\csname pdf@filemoddate\endcsname\relax
144   \def\ETE@Make#1#2{%
145     \ifETE@update
146       \ETE@WarnModDate
147     \fi
148     \@firstofone
149   }%
150   \def\ETE@WarnModDate{%
151     \@PackageWarningNoLine{epstopdf}{%
152       \string\pdf@filemoddate\space is not available,\MessageBreak
153       option ‘update’ will be ignored%
154     }%
155     \global\let\ETE@WarnModDate\relax
156   }%
157   \def\ETE@FileInfo#1#2{#1 file: <#2>}%
158 \else
159   \def\ETE@Make#1#2{%
160     \ifETE@update
161       \ifnum\pdf@strcmp{\pdf@filemoddate{#1}}{\pdf@filemoddate{#2}}>0 %
162       \expandafter\expandafter\expandafter\@firstofone
163     \else
164       \@PackageInfoNoLine{epstopdf}{%
165         Output file is already uptodate%
166       }%
167     \expandafter\expandafter\expandafter\@gobble
168     \fi
169   \else
170     \expandafter\@firstofone
171   \fi

```

```

172 }%
173 \def\ETE@FileInfo#1#2{%
174   #1 file: <#2>%
175   \expandafter\expandafter\expandafter
176   \ETE@Date\pdf@filemoddate{#2}\@nil
177   \expandafter\expandafter\expandafter
178   \ETE@Size\pdf@filesize{#2}\@nil
179 }%
180 \def\ETE@Date#1\@nil{%
181   \ifx\#1\%
182     \else
183       \ETE@@Date#1\@nil
184     \fi
185 }%
186 \def\ETE@@Date#1:#2#3#4#5#6#7#8#9{%
187   \MessageBreak
188   \@spaces\space\space\space date: #2#3#4#5-#6#7-#8#9 %
189   \ETE@@Time
190 }%
191 \def\ETE@@Time#1#2#3#4#5#6#7\@nil{%
192   #1#2:#3#4:#5#6%
193 }%
194 \def\ETE@Size#1\@nil{%
195   \ifx\#1\%
196     \else
197       \MessageBreak
198       \@spaces\space\space\space size: #1 bytes%
199     \fi
200 }%
201 \fi

```

## 2.6 Adding conversion support

Patch \Gin@setfile to execute #3, if it contains a command.

```

202 \expandafter\ifx\csname ETE@OrgGin@setfile\endcsname\relax
203   \let\ETE@OrgGin@setfile\Gin@setfile
204 \else
205   \@PackageError{epstopdf}{%
206     Command \string\ETE@OrgGin@setfile\space
207     already defined.\MessageBreak
208   }{%
209     Probably some package has included the code of this package%
210     \MessageBreak
211     instead of using \string\RequirePackage{epstopdf}.%
212     \MessageBreak
213     \@ehc
214   }%
215 \fi
216 \def\Gin@setfile#1#2#3{%
217   \if'\@car #3\relax\@nil
218     \begingroup
219       \def\GraphicsType{#1}%
220       \def\GraphicsRead{#2}%
221       \ifx\Gin@ext\relax
222         \def\SourceFile{\Gin@base\Gin@eext}%
223       \else
224         \def\SourceFile{\Gin@base\Gin@ext}%
225       \fi
226       \let\OutputDirectory\ETE@outdir
227       \ifx\OutputDirectory\@empty
228         \def\OutputFile{\Gin@base#2}%
229       \else
230         \begingroup

```



```

231         \filename@parse{\Gin@base#2}%
232         \edef\x{\endgroup
233         \def\noexpand\OutputFile{%
234         \OutputDirectory\filename@base#2%
235         }%
236         }%
237         \x
238         \fi
239         \edef\CommandLine{\@cdr#3\@empty\@nil}%
240         \ifETE@verbose
241             \@PackageInfo{epstopdf}{%
242             \ETE@FileInfo{Source}\SourceFile\MessageBreak
243             \ETE@FileInfo{Output}\OutputFile\MessageBreak
244             Command: <\CommandLine>\MessageBreak
245             \string\includegraphics
246             }%
247         \fi
248         \ETE@Make\SourceFile\OutputFile{%
249         \pdf@system{\CommandLine}%
250         \ifETE@verbose
251             \@PackageInfoNoLine{epstopdf}{%
252             \ETE@FileInfo{Result}\OutputFile
253             }%
254         \fi
255         }%
256         \edef\x{\endgroup
257         \ifx\OutputDirectory\@empty
258         \else
259             \def\noexpand\Gin@base{%
260             \OutputDirectory\noexpand\filename@base
261             }%
262         \fi
263         \noexpand\ETE@OrgGin@setfile{%
264         \GraphicsType
265         }{%
266         \GraphicsRead
267         }{%
268         \OutputFile
269         }%
270         }%
271         \x
272         \else
273             \ETE@OrgGin@setfile{#1}{#2}{#3}%
274         \fi
275 }
\DeclareGraphicsRule for .eps
276 \expandafter\ifx\csname Gin@rule@.eps\endcsname\relax
277 \else
278     \@PackageInfo{epstopdf}{Overwriting graphics rule for '.eps'}%
279 \fi
280 \@namedef{Gin@rule@.eps}#1{{pdf}{.pdf}}{'\ETE@epstopdf{#1}}
281 \def\ETE@epstopdf#1{%
282     epstopdf %
283     \ifx\OutputDirectory\@empty
284     \else
285         --outfile=\OutputFile\space
286     \fi
287     #1%
288 }
289 \ifETE@prepend
290     \expandafter\PrependGraphicsExtensions
291 \else

```

```

292 \expandafter\AppendGraphicsExtensions
293 \fi
294 {.eps}
295 \let\ETE@prepend\@undefined
296 \DeclareVoidOption{prepend}{%
297   \PrependGraphicsExtensions{.eps}%
298 }
299 \let\ETE@append\@undefined
300 \DeclareVoidOption{append}{%
301   \AppendGraphicsExtensions{.eps}%
302 }
303 \InputIfFileExists{epstopdf.cfg}{-}{-}
304 \ETE@AtEnd
305 \end{package}

```

## 3 Test

### 3.1 Preface for standard catcode check

```

306 \test1
307 \input miniltx.tex\relax
308 \def\Gin@driver{pdftex.def}
309 \input graphicx.sty\relax
310 \resetatcatcode
311 \test1

```

### 3.2 Catcode checks for loading

```

312 \test1
313 \catcode'\{=1 %
314 \catcode'\}=2 %
315 \catcode'\#=6 %
316 \catcode'\@=11 %
317 \expandafter\ifx\csname count\endcsname\relax
318   \countdef\count@=255 %
319 \fi
320 \expandafter\ifx\csname @gobble\endcsname\relax
321   \long\def\@gobble#1{}%
322 \fi
323 \expandafter\ifx\csname @firstofone\endcsname\relax
324   \long\def\@firstofone#1{#1}%
325 \fi
326 \expandafter\ifx\csname loop\endcsname\relax
327   \expandafter\@firstofone
328 \else
329   \expandafter\@gobble
330 \fi
331 {%
332   \def\loop#1\repeat{%
333     \def\body{#1}%
334     \iterate
335   }%
336   \def\iterate{%
337     \body
338     \let\next\iterate
339   \else
340     \let\next\relax
341   \fi
342   \next
343 }%
344 \let\repeat=\fi

```

```

345 }%
346 \def\RestoreCatcodes{}
347 \count@=0 %
348 \loop
349   \edef\RestoreCatcodes{%
350     \RestoreCatcodes
351     \catcode\the\count@=\the\catcode\count@\relax
352   }%
353 \ifnum\count@<255 %
354   \advance\count@ 1 %
355 \repeat
356
357 \def\RangeCatcodeInvalid#1#2{%
358   \count@=#1\relax
359   \loop
360     \catcode\count@=15 %
361     \ifnum\count@<#2\relax
362       \advance\count@ 1 %
363     \repeat
364 }
365 \expandafter\ifx\csname LoadCommand\endcsname\relax
366   \def\LoadCommand{\input epstopdf.sty\relax}%
367 \fi
368 \def\Test{%
369   \RangeCatcodeInvalid{0}{47}%
370   \RangeCatcodeInvalid{58}{64}%
371   \RangeCatcodeInvalid{91}{96}%
372   \RangeCatcodeInvalid{123}{255}%
373   \catcode'\@=12 %
374   \catcode'\=0 %
375   \catcode'\{=1 %
376   \catcode'\}=2 %
377   \catcode'\#=6 %
378   \catcode'\[=12 %
379   \catcode'\]=12 %
380   \catcode'\%=14 %
381   \catcode'\ =10 %
382   \catcode13=5 %
383   \LoadCommand
384   \RestoreCatcodes
385 }
386 \Test
387 \csname @@end\endcsname
388 \end
389 </test1>

```

## 4 Installation

### 4.1 Download

**Package.** This package is available on CTAN<sup>1</sup>:

[CTAN:macros/latex/contrib/oberdiek/epstopdf.dtx](http://ctan.org/macros/latex/contrib/oberdiek/epstopdf.dtx) The source file.

[CTAN:macros/latex/contrib/oberdiek/epstopdf.pdf](http://ctan.org/macros/latex/contrib/oberdiek/epstopdf.pdf) Documentation.

**Bundle.** All the packages of the bundle ‘oberdiek’ are also available in a TDS compliant ZIP archive. There the packages are already unpacked and the documentation files are generated. The files and directories obey the TDS standard.

[CTAN:install/macros/latex/contrib/oberdiek.tds.zip](http://ctan.org/install/macros/latex/contrib/oberdiek.tds.zip)

---

<sup>1</sup>[ftp://ftp.ctan.org/tex-archive/](http://ftp.ctan.org/tex-archive/)

*TDS* refers to the standard “A Directory Structure for T<sub>E</sub>X Files” ([CTAN:tds/tds.pdf](#)). Directories with `texmf` in their name are usually organized this way.

## 4.2 Bundle installation

**Unpacking.** Unpack the `oberdiek.tds.zip` in the TDS tree (also known as `texmf` tree) of your choice. Example (linux):

```
unzip oberdiek.tds.zip -d ~/texmf
```

**Script installation.** Check the directory `TDS:scripts/oberdiek/` for scripts that need further installation steps. Package `attachfile2` comes with the Perl script `pdfatfi.pl` that should be installed in such a way that it can be called as `pdfatfi`. Example (linux):

```
chmod +x scripts/oberdiek/pdfatfi.pl
cp scripts/oberdiek/pdfatfi.pl /usr/local/bin/
```

## 4.3 Package installation

**Unpacking.** The `.dtx` file is a self-extracting `docstrip` archive. The files are extracted by running the `.dtx` through plain-T<sub>E</sub>X:

```
tex epstopdf.dtx
```

**TDS.** Now the different files must be moved into the different directories in your installation TDS tree (also known as `texmf` tree):

<code>epstopdf.sty</code>	→ <code>tex/latex/oberdiek/epstopdf.sty</code>
<code>epstopdf.pdf</code>	→ <code>doc/latex/oberdiek/epstopdf.pdf</code>
<code>test/epstopdf-test1.tex</code>	→ <code>doc/latex/oberdiek/test/epstopdf-test1.tex</code>
<code>epstopdf.dtx</code>	→ <code>source/latex/oberdiek/epstopdf.dtx</code>

If you have a `docstrip.cfg` that configures and enables `docstrip`’s TDS installing feature, then some files can already be in the right place, see the documentation of `docstrip`.

## 4.4 Refresh file name databases

If your T<sub>E</sub>X distribution (teT<sub>E</sub>X, mikT<sub>E</sub>X, ...) relies on file name databases, you must refresh these. For example, teT<sub>E</sub>X users run `texhash` or `mktextlsr`.

## 4.5 Some details for the interested

**Attached source.** The PDF documentation on CTAN also includes the `.dtx` source file. It can be extracted by AcrobatReader 6 or higher. Another option is `pdftk`, e.g. unpack the file into the current directory:

```
pdftk epstopdf.pdf unpack_files output .
```

**Unpacking with L<sup>A</sup>T<sub>E</sub>X.** The `.dtx` chooses its action depending on the format:

**plain-T<sub>E</sub>X:** Run `docstrip` and extract the files.

**L<sup>A</sup>T<sub>E</sub>X:** Generate the documentation.

If you insist on using L<sup>A</sup>T<sub>E</sub>X for `docstrip` (really, `docstrip` does not need L<sup>A</sup>T<sub>E</sub>X), then inform the autodetect routine about your intention:

```
latex \let\install=y\input{epstopdf.dtx}
```

Do not forget to quote the argument according to the demands of your shell.

**Generating the documentation.** You can use both the `.dtx` or the `.drv` to generate the documentation. The process can be configured by the configuration file `ltxdoc.cfg`. For instance, put this line into this file, if you want to have A4 as paper format:

```
\PassOptionsToClass{a4paper}{article}
```

An example follows how to generate the documentation with pdfL<sup>A</sup>T<sub>E</sub>X:

```
pdflatex epstopdf.dtx
makeindex -s gind.ist epstopdf.idx
pdflatex epstopdf.dtx
makeindex -s gind.ist epstopdf.idx
pdflatex epstopdf.dtx
```

## 5 History

### [2001/01/06 v1.0]

- First public version, published in the pdfT<sub>E</sub>X mailing list.

### [2001/02/04 v1.1]

- Minor documentation update.
- CTAN.

### [2006/02/20 v1.2]

- DTX framework.
- Compatibility for `miniltx.tex`.

### [2006/08/26 v1.3]

- Check for `\write18` if available and print a warning if the feature is not enabled.

### [2007/04/26 v1.4]

- Documentation rewritten and extended.

### [2007/10/02 v1.5]

- New option `update`: If the converted file exists, it will be only converted if it is out of date.
- Updating the extension list is delegated to package `grfext`. Fine tuning is done by the new options `append`, `prepend`.
- New option `outdir` for changing the output directory.
- New option `verbose`.
- `\SourceFile` and `\OutputFile` introduced.
- Configuration file support added.

### [2007/11/11 v1.6]

- Use of package `pdfdoccmds` for L<sup>A</sup>T<sub>E</sub>X support.

[2008/05/06 v1.7]

- Warning messages uses “loaded” instead of “found”.

## 6 Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

Symbols	
\#	315, 377
\%	380
\@	316, 373
\@PackageError	205
\@PackageInfo	241, 278
\@PackageInfoNoLine	164, 251
\@PackageWarningNoLine	102, 113, 127, 151
\@car	217
\@cdr	239
\@ehc	213
\@empty	227, 239, 257, 283
\@firstofone	148, 162, 170, 324, 327
\@gobble	167, 321, 329
\@namedef	280
\@nil	176, 178, 180, 183, 191, 194, 217, 239
\@spaces	188, 198
\@undefined	295, 299
\[	378
\]	181, 195, 374
\{	313, 375
\}	314, 376
\]	379
\_	381
A	
\advance	354, 362
\AppendGraphicsExtensions	292, 301
B	
\body	333, 337
C	
\catcode	3, 4, 5, 6, 7, 18, 19, 20, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 62, 63, 66, 67, 68, 69, 73, 74, 75, 76, 80, 82, 313, 314, 315, 316, 351, 360, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382
\CommandLine	239, 244, 249
\count@	318, 347, 351, 353, 354, 358, 360, 361, 362
\countdef	318
\csname	8, 21, 45, 58, 65, 101, 123, 143, 202, 276, 317, 320, 323, 326, 365, 387
D	
\DeclareBoolOption	134, 135
\DeclareStringOption	139
\DeclareVoidOption	137, 138, 296, 300
E	
\empty	12
\end	388
\endcsname	8, 21, 45, 58, 65, 101, 123, 143, 202, 276, 317, 320, 323, 326, 365, 387
\endinput	30, 107, 119
\epstopdfsetup	3, 105, 117, 141
\ETE@@Date	183, 186
\ETE@@Time	189, 191
\ETE@append	299
\ETE@AtEnd	78, 79, 106, 118, 304
\ETE@Date	176, 180
\ETE@epstopdf	280, 281
\ETE@FileInfo	157, 173, 242, 243, 252
\ETE@Make	144, 159, 248
\ETE@OrgGin@setfile	203, 206, 263, 273
\ETE@outdir	226
\ETE@prepend	295
\ETE@prependfalse	138
\ETE@prependtrue	137
\ETE@Size	178, 194
\ETE@WarnModDate	146, 150, 155
F	
\filename@base	234, 260
\filename@parse	231
G	
\Gin@base	222, 224, 228, 231, 259
\Gin@driver	111, 308
\Gin@eext	222
\Gin@ext	221, 224
\Gin@setfile	203, 216
\GraphicsRead	220, 266
\GraphicsType	219, 264
I	
\if	217
\ifcase	9
\ifETE@prepend	136, 289
\ifETE@update	145, 160
\ifETE@verbose	240, 250
\ifnum	125, 161, 353, 361
\ifx	10, 12, 21, 45, 53, 101, 111, 123, 143, 181, 195, 202, 221, 227, 257, 276, 283, 317, 320, 323, 326, 365
\immediate	23, 47

<code>\includegraphics</code> .....	245	<code>\pdffilemoddate</code> .....	152
<code>\input</code> .....	307, 309, 366	<code>\PrependGraphicsExtensions</code> .	290, 297
<code>\InputIfFileExists</code> .....	303	<code>\ProcessKeyvalOptions</code> .....	140
<code>\iterate</code> .....	334, 336, 338	<code>\ProvidesPackage</code> .....	59
<b>L</b>		<b>R</b>	
<code>\LoadCommand</code> .....	366, 383	<code>\RangeCatcodeInvalid</code> .....	
<code>\loop</code> .....	332, 348, 359	.....	357, 369, 370, 371, 372
<b>M</b>		<code>\repeat</code> .....	332, 344, 355, 363
<code>\MessageBreak</code> .....	152, 187,	<code>\RequirePackage</code> ...	96, 97, 98, 99, 211
.....	197, 207, 210, 212, 242, 243, 244	<code>\resetatcatcode</code> .....	310
<b>N</b>		<code>\RestoreCatcodes</code> ..	346, 349, 350, 384
<code>\newcommand</code> .....	105, 117, 141	<b>S</b>	
<code>\newif</code> .....	136	<code>\setkeys</code> .....	141
<code>\next</code> .....	338, 340, 342	<code>\SetupKeyvalOptions</code> .....	133
<b>O</b>		<code>\SourceFile</code> .....	222, 224, 242, 248
<code>\OutputDirectory</code> .....		<code>\space</code> .....	152, 188, 198, 206, 285
.....	226, 227, 234, 257, 260, 283	<b>T</b>	
<code>\OutputFile</code> .....		<code>\Test</code> .....	368, 386
.....	228, 233, 243, 248, 252, 268, 285	<code>\the</code> .....	66, 67, 68, 69, 80, 351
<b>P</b>		<code>\TMP@EnsureCode</code> .....	77, 84, 85,
<code>\PackageInfo</code> .....	26	.....	86, 87, 88, 89, 90, 91, 92, 93, 94, 95
<code>\pdf@filemoddate</code> .....	161, 176	<b>W</b>	
<code>\pdf@filesize</code> .....	178	<code>\write</code> .....	23, 47
<code>\pdf@shellescape</code> .....	125	<b>X</b>	
<code>\pdf@strcmp</code> .....	161	<code>\x</code> ..	8, 10, 12, 22, 26, 28, 46, 51, 58,
<code>\pdf@system</code> .....	249	.....	64, 72, 110, 111, 232, 237, 256, 271