# The pstool package

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### Part I

# User documentation

# 1 Introduction

While pdfIATEX is a great improvement in many ways over the 'old method' of DVI—PS—PDF, it loses the ability to interface with a generic PostScript workflow, used to great effect in numerous packages, most notably PSTricks and psfrag.

Until now, the best way to use these packages while running pdflaTeX has been to use the pst-pdf package, which processes the entire document through a filter, sending the relevant PostScript environments through a single pass of DVI—PS—PDF. The resulting PDF versions of each image are then included into the pdflaTeX document. The auto-pst-pdf package provides a wrapper to perform all of this automatically.

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The disadvantage with this method is that for every document compilation, *every* graphic must be re-processed. The pstool package uses a different approach to allow each graphic to be processed only as-needed, speeding up and simplifying the typesetting of the main document.

At present this package is designed solely as a replacement for pst-pdf in the rôle of supporting the psfrag package (which it loads) in pdfLATeX.

More flexible usage to provide a complete replacement for pst-pdf (e.g., support the \beginpostscript environment) is planned for a possible future release. If you simply need to automatically convert plain EPS files to PDF, I recommend using the epstopdf package with the [update,prepend] package options. (The two packages should be completely compatible.)

# 2 Processing modes

Load the package as usual; no package options are required by default, but there are a few useful options described later in section 3. Note that you do not need to load psfrag separately.

The generic command provided by this package is

 $\proptool[\langle graphicx\ options \rangle] \{\langle filename \rangle\} \{\langle input\ definitions \rangle\}$ 

It converts the graphic \( \langle filename \rangle \). eps to \( \langle filename \rangle \). pdf through a unique \( \text{DVI} \rightarrow PDF \) process for each graphic, using the preamble of the main document. The resulting graphic is then inserted into the document, with optional \( \langle graphicx \) options \( \rangle \). The third argument to \( \text{pstool} \) allows arbitrary \( \langle input \) definitions \( \text{(such as \psfrag directives)} \) to be inserted before the figure as it is processed.

By default \pstool can be used in the following modes:

**\pstool** Process the graphic \( \filename \) if no PDF of the same name exists, or if the source EPS file is newer than the PDF;

\pstool\* Always process this figure; and,

\pstool! Never process this figure.

It is useful to define higher-level commands with \pstool for including specific types of EPS graphics that take advantage of psfrag. As an example, this package defines the following command, which also supports the \* or ! suffixes.

\psfragfig[\langle opts \rangle] \{\filename \rangle}\} This is the catch-all macro to support a wide range of graphics naming schemes. It insert an EPS file named either \langle filename \rangle .eps or \langle filename \rangle -psfrag.eps (in order of preference), and

uses psfrag definitions contained within either the file  $\langle filename \rangle$ .tex or  $\langle filename \rangle$ -psfrag.tex.

This command can be used to insert figure produced by the MATHEMATICA package MathPSfrag or the MATLAB package matlabfrag. \psfragfig also accepts an optional braced argument as shown next.

\psfragfig[\langle opts \rangle] \{\langle input definitions \rangle \rangle \text{ above, but inserts the arbitrary code \langle input definitions \rangle, which will usually be used for defining new or overriding existing psfrag commands.

# 3 Package options

## 3.1 Forcing/disabling graphics processing

While the suffixes \* and ! can be used to force or disable (respectively) the processing of each individual graphic, sometimes we want to do this on a global level. The following package options override *all* \pstool (and related) macros:

[process=auto] This is the default mode as described in the previous section, in which graphics are only (re-)processed if the EPS file is newer or the PDF file does not exist;

[process=all] All \pstool graphics are processed; and,

[process=none] No \pstool graphics are processed.1

Also note that it would be nice to detect the age of files other than the EPS and PDF graphics in order to affect the processing decisions. This is planned for a possible future release.

# 3.2 Cropping graphics

Graphics are cropped to the appropriate size with the preview package. This corresponds with the package option [crop=preview], which is activated by default.

When an inserted label protrudes from the natural bounding box of the figure, or when the original bounding box of the figure is wrong, the preview package will not always produce a good result (with parts of the graphic trimmed off the edge). A robust method to solve this problem is to use the pdfcrop

<sup>&</sup>lt;sup>1</sup>If pstool is loaded in a L<sup>A</sup>T<sub>E</sub>X document in DVI mode, this is the option that is used since no external processing is required for these graphics.

program instead.<sup>2</sup> This can be activated in pstool with the [crop=pdfcrop] package option. In the future I plan to also support the epstool method of robust graphic cropping.

## 3.3 Temporary files & cleanup

Each figure that is processed spawns an auxiliary LATEX compilation through DVI—PS—PDF. This process is named after the name of the figure with a suffix; the default is [suffix={-pstool}]. All of these suffixed files are "temporary" in that they may be deleted once they are no longer needed.

As an example, if the figure is called ex.eps, the files that are created are ex-pstool.tex, ex-pstool.dvi,.... The [cleanup] package option declares via a list of filename suffixes which temporary files are to be deleted after processing.

The default is [cleanup={.tex, .dvi, .ps, .pdf, .log, .aux}]. To delete none of the temporary files, choose [cleanup={}] (useful for debugging).

## 3.4 Interaction mode of the auxiliary processes

Each graphic echoes the output of its auxiliary process to the console window; unless you are trying to debug errors there is little interest in seeing this information. The behaviour of these auxiliary processes are governed globally by the [mode] package option, which takes the following parameters:

[mode=batch] hide almost all of the LATEX output (default);

[mode=nonstop] echo all LATEX output but continues right past any errors; and

[mode=errorstop] prompt for user input when errors in the source are encountered.

These three package options correspond to the LATEX command line options -interaction=batchmode, =nonstopmode, and =errorstopmode, respectively. When [mode=batch] is activated, then dvips is also run in 'quiet mode'.

# 4 Miscellaneous details

#### 4.1 The \EndPreamble command

At present, pstool scans the preamble of the main document by redefining \begin{document}, but this is rather fragile because many classes and packages

<sup>&</sup>lt;sup>2</sup>pdfcrop requires a Perl installation under Windows, freely available from http://www.activestate.com/Products/activeperl/index.plex

do their own redefined which overwrites pstool's attempt. In this case, place the command

#### \EndPreamble

where-ever you'd like the preamble in the auxiliary processing to end. This is also handy to bypass anything in the preamble that will never be required for the figures but which will slow down or otherwise conflict with the auxiliary processing.

#### 4.2 Cross-reference limitations

The initial release of this package does not support cross-references within the psfrag labels of the included graphics. (If, say, you wish to refer to an equation number within a figure.) A future release of pstool may fix this limitation.

## 4.3 A note on file paths

pstool does its best to ensure that you can put image files where-ever you like and the auxiliary processing will still function correctly. In order to ensure this, the external pdflatex compilation uses the -output-directory feature of pdfTEX. This command line option is definitely supported on all platforms in TeX Live 2008 and MiKTeX 2.7, but earlier distributions may not be supported.

One problem that pstool does not (currently) solve on its own is the inclusion of images that do not exist in subdirectories of the main document. For example, \pstool{../Figures/myfig} will not process by default because pdfTEX usually does not have permission to write into folders that are higher in the heirarchy than the main document. This can be worked around presently in two different ways: (although maybe only for Mac OS X and Linux)

- 1. Give pdflatex permission to write anywhere with the command: openout\_any=a pdflatex ...
- 2. Create a symbolic link in the working directory to a point higher in the path: ln -s ../../PhD ./PhD, for example, and then refer to the graphics through this symbolic link.

I hope to directly solve this problem in the future by using a caching folder for the auxiliary processing in such cases.

# 5 Package information

The most recent publicly released version of pstool is available at CTAN:

http://tug.ctan.org/pkg/pstool/

Historical and developmental versions are available at GitHub:

# http://github.com/wspr/pstool/

While general feedback at wspr810gmail.com is welcomed, specific bugs should be reported through the bug tracker at FogBugz: https://wspr.fogbugz.com/(click 'TASKS: Enter a New Case').

This package is freely modifiable and distributable under the terms and conditions of the LATEX Project Public Licence, version 1.3c or greater (your choice). The latest version of this license is available at: http://www.latex-project.org/lppl.txt. This work is maintained by WILL ROBERTSON.

### Part II

\if@pstool@always@

\if@pstool@pdfcrop@

\if@pstool@verbose@

\OnlyIfFileExists

\NotIfFileExists

\pstool@out

crop

process

\if@pstool@never@

# **Implementation**

```
1 \ProvidesPackage{pstool}[2008/08/28_v0.8
    Wrapper_for_processing_PostScript/psfrag_figures]
External packages
 3 \RequirePackage{%
          catchfile,color,ifpdf,ifplatform,graphicx,psfrag,suffix,xkeyval}
 5 \RequirePackage{inversepath}[2008/07/31 v0.2]
Allocations
6 \newif\if@pstool@always@
7 \newif\if@pstool@never@
8 \newif\if@pstool@pdfcrop@
9 \newif\if@pstool@verbose@
10 \newwrite\pstool@out
These are cute
providecommand\OnlyIfFileExists[2]{\IfFileExists{#1}{#2}{}}
12 \providecommand\NotIfFileExists[2]{\IfFileExists{#1}{}{#2}}
    Package options
13 \define@choicekey*{pstool.sty}{crop}[\@tempa\@tempb]{%
        preview,pdfcrop}{%
     \ifcase\@tempb\relax
       \@pstool@pdfcrop@false
     \or
       \@pstool@pdfcrop@true
    \fi
20 }
21 \define@choicekey*{pstool.sty}{process}[\@tempa\@tempb]{%
```

all, none, auto}{%

\ifcase\@tempb\relax \@pstool@always@true

```
\or
                          \@pstool@never@true
                        \fi
                   27
                      }
                      \define@choicekey*{pstool.sty}{mode}
            mode
                        [\@tempa\@tempb]{errorstop,nonstop,batch}{%
                          \ifnum\@tempb=2\relax
                            \@pstool@verbose@false
                          \else
                            \@pstool@verbose@true
                          \edef\pstool@mode{\@tempa_mode}%
                     }
                      \ExecuteOptionsX{mode=batch}
                     \DeclareOptionX{cleanup}{\def\pstool@rm@files{#1}}
         cleanup
                      \ExecuteOptionsX{cleanup={.tex,.dvi,.ps,.pdf,.log,.aux}}
\pstool@rm@files
                   41 \DeclareOptionX{suffix}{\def\pstool@suffix{#1}}
          suffix
                   42 \ExecuteOptionsX{suffix={-pstool}}
 \pstool@suffix
                      \ifshellescape\else
                        \ExecuteOptionsX{process=none}
                        \PackageWarning{pstool}{^^J\space\space%
                          Package_option_[process=none]_activated^^J\space\space
                          because \_-shell-escape \_is \_not \_enabled. \^{\ } \rag{1}\%
                          This_warning_occurred}
                      \fi
                      \ProcessOptionsX
```

### 6 Macros

Used to echo information to the console output. Can't use ecause it's asynchronous with any \immediate\write18 processes (for some reason).

```
\pstool@echo 51 \def\pstool@echo#1{%
52 \if@pstool@verbose@
53 \pstool@echo@verbose{#1}%
54 \fi}
55 \def\pstool@echo@verbose#1{%
```

```
\pstool@echo@verbose
```

58 \let\pstool@includegraphics\includegraphics

Command line abstractions between platforms:

```
59 \edef\pstool@cmdsep{\ifwindows\string&\else\string;\fi\space}
```

60 \edef\pstool@rm@cmd{\ifwindows\_del\_\else\_rm\_--\_\fi}

Delete a file if it exists (only the filename is supplied and the path is inferred):

```
\pstool@rm
```

```
61 \newcommand\pstool@rm[2] {%
62 \OnlyIfFileExists{#1#2}{%
63 \immediate\write18{%
64 cd_"#1"\pstool@cmdsep\pstool@rm@cmd_"#2"}}%
65 }
```

Generic function to execute a command on the shell and pass its exit status back into LATEX. Any number of \pstool@exe statements can be made consecutively followed by \pstool@endprocess, which also takes an argument. If any of the shell calls failed, then the execution immediately skips to the end and expands \pstool@error instead of the argument to \pstool@endprocess.

```
#1: 'name' of process
```

#2: relative path where to execute the command

#3: the command itself

## \pstool@exe

```
% \newcommand\pstool@exe[3]{%
%    \pstool@echo{^^J===\pstool:\u00ed#1\u00cd===}\%
%    \pstool@shellexecute{#2}{#3}\%
%    \pstool@retrievestatus{#2}\%
%    \ifnum\pstool@status\u00ed>\u00cd\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u00cd=\u
```

Edit this definition to print something else when graphic processing fails.

#### \pstool@error

- An\_error\_occured\_processing\_graphic\_\upshape'\ip@directpath%\ip@lastelement'}}}
- 76 \def\pstool@abort#1\pstool@endprocess{\pstool@error\@gobble}

 $\protect\pro$ 

It is necessary while executing commands on the shell to write the exit status to a temporary file to test for failures in processing. (If all versions of pdflatex supported input pipes, things might be different.)

```
\protect\ pstool@shellexecute _{78}
```

That's the execution; now we need to flush the write buffer to the status file. This ensures the file is written to disk properly (allowing it to be read by \CatchFileEdef). Not necessary on Windows, whose file writing is evidently more crude/immediate.

```
89 \ifwindows\else
90 \immediate\write18{%
91 touch_#1\pstool@statusfile}%
92 \fi}
93 \def\pstool@statusfile{pstool-statusfile.txt}
```

Read the exit status from the temporary file and delete it.

#1 is the path

Status is recorded in \pstool@status.

```
\pstool@retrievestatus
```

\pstool@status

\pstool@statusfile

\def\pstool@statusfail{\par\_}}% what results when TFX reads an empty

file

# 6.1 File age detection

Use 1s (or dir) to detect if the EPS is newer than the PDF.

```
\pstool@IfnewerEPS
```

```
\def\pstool@IfnewerEPS{%
     \edef\pstool@filenames{\ip@lastelement.eps\space_\%
          \ip@lastelement.pdf\space}%
     \immediate\write18{%
       cd_{\sqcup} "\ip@directpath"\pstool@cmdsep
       \ifwindows
         dir_{\square}/T:W_{\square}/B_{\square}/O-D_{\square}"\ip@lastelement.eps"_"%
109
               \ip@lastelement.pdf"_>_\pstool@statusfile
       \else
         111
               \pstool@statusfile
       \fi
112
     }%
113
     \pstool@retrievestatus{\ip@directpath}%
     \ifx\pstool@status\pstool@filenames
       \expandafter\@firstoftwo
     \else
       \expandafter\@secondoftwo
     \fi
120 }
```

A wrapper for \inversepath\*. Long story short, always need a relative path to a filename even if it's in the same directory.

```
\pstool@getpaths
```

```
^{\tiny 121} \def\pstool@getpaths#1{%
```

\edef\@tempa{\unexpanded{\inversepath\*}{#1}}%
\@tempa% calculate filename, path & inverse path

\ifx\ip@directpath\@empty

\ip@directpath

\def\ip@directpath{./}%

6 \fi

Strip off a possible wayward .eps suffix.

# 7 Command parsing

User input is \pstool (with optional \* or ! suffix) which turns into one of the following three macros depending on the mode.

\pstool@alwaysprocess

\pstool@neverprocess

```
\newcommand\pstool@alwaysprocess[3][]{%
\newcommand\pstool@getpaths{#2}%
\newcommand\pstool@neverprocess[3][]{%
\newcommand\pstool@neverprocess[3][]{%
```

\pstool@includegraphics[#1]{#2}}

For regular operation, which processes the figure only if the command is starred, or the PDF doesn't exist.

\pstool@maybeprocess

```
\newcommand\pstool@maybeprocess[3][]{%
     \pstool@getpaths{#2}%
138
     \IfFileExists{#2.pdf}{%
139
       \pstool@IfnewerEPS{% needs info from \pstool@getpaths
140
          \pstool@process{#1}{#3}%
141
       }{%
          \pstool@includegraphics[#1]{#2}%
143
       }%
144
145
       \pstool@process{#1}{#3}%
     }}
147
```

### 8 User commands

Finally, define \pstool as appropriate for the mode:

```
148 \ifpdf
149 \if@pstool@always@
150 \let\pstool\pstool@alwaysprocess
151 \WithSuffix\def\pstool!{\pstool@alwaysprocess}
```

```
*P8334/
                 \WithSuffix\def\pstool*{\pstool@alwaysprocess}
               \else\if@pstool@never@
          153
                 \let\pstool\pstool@neverprocess
\pstool
                 \WithSuffix\def\pstool!{\pstool@neverprocess}
          155
\pstool*
                 \WithSuffix\def\pstool*{\pstool@neverprocess}
          157
                 \let\pstool\pstool@maybeprocess
          158
                 \WithSuffix\def\pstool!{\pstool@neverprocess}
\pstool
          159
                 \WithSuffix\def\pstool*{\pstool@alwaysprocess}
\pstool*
          160
               \fi\fi
          161
             \else
               \let\pstool\pstool@neverprocess
          163
               \WithSuffix\def\pstool!{\pstool@neverprocess}
\pstool
               \WithSuffix\def\pstool*{\pstool@neverprocess}
\pstool*
```

# 9 The figure processing

\ip@lastelement is the filename of the figure stripped of its path (if any)

```
\verb|\pstool@jobname| igg | $$ \ef\pstool@jobname{\igglastelement\pstool@suffix} $$
```

And this is the main macro.

Execute dvips in quiet mode if latex is run in (non/error)stop mode:

```
\pstool@exe{dvips}{\ip@directpath}{%

dvips_\if@pstool@verbose@\else_-q_\fi_-Ppdf_"%

\pstool@jobname.dvi"}%
```

```
\if@pstool@pdfcrop@
180
       \pstool@exe{ps2pdf}{\ip@directpath}{%
181
         ps2pdf_"\pstool@jobname.ps"_"\pstool@jobname.pdf"}%
182
       \pstool@exe{pdfcrop}{\ip@directpath}{%
183
         pdfcrop_"\pstool@jobname.pdf"_"\ip@lastelement.pdf"}%
184
     \else
185
       \pstool@exe{ps2pdf}{\ip@directpath}{%
186
         ps2pdf_"\pstool@jobname.ps"_"\ip@lastelement.pdf"}%
187
     \fi
188
     \pstool@echo{^^J===upstool:uenduprocessingu===^^J}%
     \pstool@endprocess{%
190
       \pstool@cleanup
191
       \pstool@includegraphics[#1]{\ip@directpath%
192
             \ip@lastelement}}}
```

The file that is written for processing is set up to read the preamble of the original document and set the graphic on an empty page (cropping to size is done either here with preview or later with pdfcrop).

stool@write@processfile

```
193 \def\pstool@write@processfile#1#2#3{%
194 \immediate\openout\pstool@out_#2\pstool@suffix.tex\relax
195 \immediate\write\pstool@out{%
196 \noexpand\pdfoutput=0^^J% force DVI mode if not already
```

Input the main document; redefine the document environment so only the preamble is read:

```
\unexpanded{\%
\text{let\origdocument\document^J\%}
\let\EndPreamble\endinput^\J\%
\document
\text{\endgroup\endinput}^\J\%
\underspand\input{\jobname}^\J\%
```

Now the preamble of the process file: (restoring document's original meaning; empty \pagestyle removes the page number)

```
\if@pstool@pdfcrop@\else
\noexpand\usepackage[active,tightpage]{preview}^^J%

ifi

unexpanded{%
\let\document\origdocument^^J%
\pagestyle{empty}^^J}%
```

And the document body to place the graphic on a page of its own:

```
\begin{document}^^J%
                    209
                               \centering\null\vfill^^J}%
                    210
                             \if@pstool@pdfcrop@\else
                    211
                               \noexpand\begin{preview}^^J%
                    212
                             \fi
                    213
                             \unexpanded{#3^^J}% this is the "psfrag" material
                    214
                             \noexpand\includegraphics[#1]{\ip@lastelement}^^J%
                    215
                             \if@pstool@pdfcrop@\else
                    216
                               \noexpand\end{preview}^^J%
                    217
                             \fi
                    218
                             \unexpanded{%
                    219
                               \vfill\end{document}}^^J%
                             }%
                    221
                           \immediate\closeout\pstool@out}
  \pstool@cleanup
                       \def\pstool@cleanup{%
                    223
                         \@for\@ii:=\pstool@rm@files\do{%
                           \pstool@rm{\ip@directpath}{\pstool@jobname\@ii}%
                       }}
                    227 \providecommand\EndPreamble{}
     \EndPreamble
                    10
                          User commands
                    These all support the suffixes * and !, so each user command is defined as a
                    wrapper to \pstool.
                    for EPS figures with psfrag:
                    ^newcommand\psfragfig[2][]{\pstool@psfragfig{#1}{#2}{}}
       \psfragfig
      \psfragfig*
                       \WithSuffix\newcommand\psfragfig*[2][]{\pstool@psfragfig{#1}{%
                             #2}{*}}
       \psfragfig
                   230 \WithSuffix\newcommand\psfragfig![2][]{\pstool@psfragfig{#1}{%
                             #2}{!}}
                    Parse optional (input definitions)
\pstool@psfragfig
                       \newcommand\pstool@psfragfig[3]{%
                         \@ifnextchar\bgroup{%
```

\pstool@@psfragfig{#1}{#2}{#3}%

\unexpanded{%

208

233

}{%

```
}%
                             236
                             237 }
                             Search for both \( \) filename \( \) and \( \) filename \( \) -psfrag inputs.
\pstool@@psfragfig
                                 \newcommand\pstool@@psfragfig[4]{%
                                    \IfFileExists{#2-psfrag.eps}{%
                                       \def\pstool@eps{#2-psfrag}%
          \pstool@eps
                             240
                                       \OnlyIfFileExists{#2.eps}{%
                             241
                                          \PackageWarning{pstool}{Graphic_"#2.eps"_exists_but_
                             242
                                                   "#2-psfrag.eps"_{\perp}is_{\perp}being_{\perp}used}%
                                       }%
                             243
                                    }{%
                             244
                                       \IfFileExists{#2.eps}{%
                             245
                                          \def\pstool@eps{#2}%
          \pstool@eps
                             246
                                       }{%
                             247
                                          \PackageError{pstool}{%
                             248
                                             No_graphic_"#2.eps"_or_"#2-psfrag.eps"_found%
                             249
                             250
                                             \texttt{Check}_{\sqcup} \texttt{the}_{\sqcup} \texttt{path}_{\sqcup} \texttt{and}_{\sqcup} \texttt{whether}_{\sqcup} \texttt{the}_{\sqcup} \texttt{file}_{\sqcup} \texttt{exists.} \%
                             251
                                          }%
                             252
                                       }%
                             253
                                    }%
                             254
                                    \pstool#3[#1]{\pstool@eps}{%
                             255
                                       \InputIfFileExists{#2-psfrag.tex}{%
                             256
                                          \OnlyIfFileExists{#2.tex}{%
                             257
                                             \PackageWarning{pstool}{%
                                                File_{\sqcup} \texttt{"#2.tex"}_{\sqcup} exists_{\sqcup} that_{\sqcup} may_{\sqcup} contain_{\sqcup} macros_{\sqcup} for_{\sqcup} \texttt{"}\%
                             259
                                                        \pstool@eps.eps"^^J%
                                                {\tt But\_file\_"\#2-psfrag.tex"\_is\_being\_used\_instead.\%}
                                             }%
                                          }%
                                       }{%
                                          \InputIfFileExists{#2.tex}{}{}%
                                       }%
                                       #4%
                             266
                                    }%
                             268 }
                             \langle eof \rangle
```

\pstool@@psfragfig{#1}{#2}{#3}{}%