

# The letltxmacro package

Heiko Oberdiek  
<oberdiek@uni-freiburg.de>

2008/06/13 v1.2

## Abstract

T<sub>E</sub>X's `\let` assignment does not work for L<sup>A</sup>T<sub>E</sub>X macros with optional arguments or for macros that are defined as robust macros by `\DeclareRobustCommand`. This package defines `\LetLtxMacro` that also takes care of the involved internal macros.

## Contents

<b>1</b>	<b>Documentation</b>	<b>1</b>
1.1	Supported macro definition commands . . . . .	2
<b>2</b>	<b>Implementation</b>	<b>2</b>
2.1	Show cases . . . . .	2
2.1.1	letltxmacro-showcases.tex . . . . .	2
2.1.2	Result . . . . .	3
2.2	Package . . . . .	4
2.2.1	Catcodes and identification . . . . .	4
2.2.2	Main macros . . . . .	5
<b>3</b>	<b>Test</b>	<b>7</b>
3.1	Catcode checks for loading . . . . .	7
3.2	Package tests . . . . .	8
<b>4</b>	<b>Installation</b>	<b>11</b>
4.1	Download . . . . .	11
4.2	Bundle installation . . . . .	11
4.3	Package installation . . . . .	11
4.4	Refresh file name databases . . . . .	11
4.5	Some details for the interested . . . . .	12
<b>5</b>	<b>History</b>	<b>12</b>
	[2008/06/09 v1.0] . . . . .	12
	[2008/06/12 v1.1] . . . . .	12
	[2008/06/13 v1.2] . . . . .	12
<b>6</b>	<b>Index</b>	<b>12</b>

## 1 Documentation

If someone wants to redefine a macro with using the old meaning, then one method is T<sub>E</sub>X's command `\let`:

```

\newcommand{\Macro}{\typeout{Test Macro}}
\let\SavedMacro=\Macro
\renewcommand{\Macro}{%
  \typeout{Begin}%
  \SavedMacro
  \typeout{End}%
}

```

However, this method fails, if `\Macro` is defined by `\DeclareRobustCommand` and/or has an optional argument. In both cases L<sup>A</sup>T<sub>E</sub>X defines an additional internal macro that is forgotten in the simple `\let` assignment of the example above.

`\LetLtxMacro {⟨new macro⟩} {⟨old macro⟩}`

Macro `\LetLtxMacro` behaves similar to T<sub>E</sub>X's `\let` assignment, but it takes care of macros that are defined by `\DeclareRobustCommand` and/or have optional arguments. Example:

```

\DeclareRobustCommand{\Macro}[1][default]{...}
\LetLtxMacro{\SavedMacro}{\Macro}

```

Then macro `\SavedMacro` only uses internal macro names that are derived from `\SavedMacro`'s macro name. Macro `\Macro` can now be redefined without affecting `\SavedMacro`.

## 1.1 Supported macro definition commands

<code>\newcommand</code> , <code>\renewcommand</code>	latex/base
<code>\newenvironment</code> , <code>\renewenvironment</code>	latex/base
<code>\DeclareRobustCommand</code>	latex/base
<code>\newrobustcmd</code> , <code>\renewrobustcmd</code>	etoolbox
<code>\robustify</code>	etoolbox 2008/06/12 v1.6a

## 2 Implementation

### 2.1 Show cases

#### 2.1.1 letltxmacro-showcases.tex

```

1 (*showcases)
2 \NeedsTeXFormat{LaTeX2e}
3 \makeatletter

```

`\Line` The result is displayed by macro `\Line`. The percent symbol at line start allows easy grepping and inserting into the DTX file.

```

4 \newcommand*{\Line}[1]{%
5   \typeout{\@percentchar#1}%
6 }

7 \newcommand*{\ShowCmdName}[1]{%
8   \@ifundefined{#1}{}{%
9     \Line{%
10       \space\space(\expandafter\string\csname#1\endcsname) = %
11       (\expandafter\meaning\csname#1\endcsname)%
12     }%
13   }%
14 }

15 \newcommand*{\ShowCmds}[1]{%
16   \ShowCmdName{#1}%
17   \ShowCmdName{#1 }%
18   \ShowCmdName{\#1}%

```

```

19 \ShowCmdName{\#1 }%
20 }
21 \let\\ \@backslashchar

\ShowDef

22 \newcommand*{\ShowDef}[2]{%
23   \begingroup
24   \Line{}%
25   \newcommand*{\DefString}{#2}%
26   \@onelevel@sanitize\DefString
27   \Line{\DefString}%
28   #2%
29   \ShowCmds{#1}%
30   \endgroup
31 }

32 \typeout{}
33 \Line{* LaTeX definitions:}
34 \ShowDef{cmd}{%
35   \newcommand{\cmd}[2][default]{}%
36 }
37 \ShowDef{cmd}{%
38   \DeclareRobustCommand{\cmd}{}%
39 }
40 \ShowDef{cmd}{%
41   \DeclareRobustCommand{\cmd}[2][default]{}%
42 }
43 \typeout{}

The minimal version of package etoolbox is 2008/06/12 v1.6a because it fixes
\robustify.

44 \RequirePackage{etoolbox}[2008/06/12]%
45 \Line{}
46 \Line{* etoolbox's robust definitions:}
47 \ShowDef{cmd}{%
48   \newrobustcmd{\cmd}{}%
49 }
50 \ShowDef{cmd}{%
51   \newrobustcmd{\cmd}[2][default]{}%
52 }
53 \Line{}
54 \Line{* etoolbox's \string\robustify:}
55 \ShowDef{cmd}{%
56   \newcommand{\cmd}[2][default]{ } %
57   \robustify{\cmd}%
58 }
59 \ShowDef{cmd}{%
60   \DeclareRobustCommand{\cmd}{ } %
61   \robustify{\cmd}%
62 }
63 \ShowDef{cmd}{%
64   \DeclareRobustCommand{\cmd}[2][default]{ } %
65   \robustify{\cmd}%
66 }
67 \typeout{}
68 \@@end
69 \showcases)

```

### 2.1.2 Result

\* LaTeX definitions:

```
\newcommand {\cmd }[2][default]{}
```

```

(\cmd) = (macro:->\@protected@testopt \cmd \cmd {default})
(\cmd) = (\long macro:[#1]#2->)

\DeclareRobustCommand {\cmd} {}
(\cmd) = (macro:->\protect \cmd_ )
(\cmd_) = (\long macro:->)

\DeclareRobustCommand {\cmd}[2][default]{}
(\cmd) = (macro:->\protect \cmd_ )
(\cmd_) = (macro:->\@protected@testopt \cmd_ \cmd_ {default})
(\cmd_) = (\long macro:[#1]#2->)

* etoolbox's robust definitions:

\newrobustcmd {\cmd} {}
(\cmd) = (\protected\long macro:->)

\newrobustcmd {\cmd}[2][default]{}
(\cmd) = (\protected macro:->\@protected@testopt \cmd \cmd {default})
(\cmd) = (\long macro:[#1]#2->)

* etoolbox's \robustify:

\newcommand {\cmd}[2][default]{} \robustify {\cmd}
(\cmd) = (\protected macro:->\@protected@testopt \cmd \cmd {default})
(\cmd) = (\long macro:[#1]#2->)

\DeclareRobustCommand {\cmd} {} \robustify {\cmd}
(\cmd) = (\protected\long macro:->)

\DeclareRobustCommand {\cmd}[2][default]{} \robustify {\cmd}
(\cmd) = (\protected macro:->\@protected@testopt \cmd \cmd {default})
(\cmd) = (\long macro:[#1]#2->)

```

## 2.2 Package

70 (\*package)

### 2.2.1 Catcodes and identification

```

71 \begingroup
72 \catcode123 1 % {
73 \catcode125 2 % }
74 \def\x{\endgroup
75 \expandafter\edef\csname llm@AtEnd\endcsname{%
76 \catcode35 \the\catcode35\relax
77 \catcode64 \the\catcode64\relax
78 \catcode123 \the\catcode123\relax
79 \catcode125 \the\catcode125\relax
80 }%
81 }%
82 \x
83 \catcode35 6 % #
84 \catcode64 11 % @
85 \catcode123 1 % {
86 \catcode125 2 % }
87 \def\TMP@EnsureCode#1#2{%
88 \edef\llm@AtEnd{%
89 \llm@AtEnd
90 \catcode#1 \the\catcode#1\relax
91 }%
92 \catcode#1 #2\relax
93 }

```

```

94 \TMP@EnsureCode{40}{12}% (
95 \TMP@EnsureCode{41}{12}% )
96 \TMP@EnsureCode{42}{12}% *
97 \TMP@EnsureCode{45}{12}% -
98 \TMP@EnsureCode{46}{12}% .
99 \TMP@EnsureCode{47}{12}% /
100 \TMP@EnsureCode{58}{12}% :
101 \TMP@EnsureCode{61}{12}% =
102 \TMP@EnsureCode{62}{12}% >
103 \edef\llm@AtEnd{%
104   \llm@AtEnd
105   \escapechar\the\escapechar\relax
106 }
107 \escapechar=92 % '\

Package identification.
108 \NeedsTeXFormat{LaTeX2e}
109 \ProvidesPackage{letltxmacro}%
110 [2008/06/13 v1.2 Let assignment for LaTeX macros (HO)]

```

## 2.2.2 Main macros

\LetLtxMacro

```

111 \newcommand*{\LetLtxMacro}[2]{%
112   \edef\reserved@a{%
113     \noexpand\protect
114     \expandafter\noexpand
115     \csname\expandafter@gobble\string#2 \endcsname
116   }%
117   \ifx\reserved@a#2\relax
118     \edef#1{%
119       \noexpand\protect
120       \expandafter\noexpand
121       \csname\expandafter@gobble\string#1 \endcsname
122     }%
123     \expandafter\let
124     \csname\expandafter@gobble\string#1 \expandafter\endcsname
125     \csname\expandafter@gobble\string#2 \endcsname
126     \expandafter\llm@LetLtxMacro
127     \csname\expandafter@gobble\string#1 \expandafter\endcsname
128     \csname\expandafter@gobble\string#2 \endcsname
129   \else
130     \llm@LetLtxMacro{#1}{#2}%
131   \fi
132 }

```

\llm@LetLtxMacro

```

133 \def\llm@LetLtxMacro#1#2{%
134   \expandafter\llm@CheckParams\meaning#2:->\@nil{%
135     \begingroup
136     \def\@protected@testopt{%
137       \expandafter\@testopt\@gobble
138     }%
139     \def\@testopt##1##2{%
140       \toks@={##2}%
141     }%
142     \let\llm@testopt\@empty
143     \edef\x{%
144       \noexpand\@protected@testopt
145       \noexpand#2%
146       \expandafter\noexpand\csname\string#2\endcsname
147     }%
148     \expandafter\expandafter\expandafter\def
149     \expandafter\expandafter\expandafter\y

```

```

150 \expandafter\expandafter\expandafter{%
151   \expandafter\llm@CarThree#2{}-{}-{}\llm@nil
152 }%
153 \ifx\x\y
154   #2%
155   \def\llm@testopt{%
156     \noexpand\@protected@testopt
157     \noexpand#1%
158   }%
159 \else
160   \edef\x{%
161     \noexpand\@testopt
162     \expandafter\noexpand\csname\string#2\endcsname
163   }%
164   \expandafter\expandafter\expandafter\def
165   \expandafter\expandafter\expandafter\y
166   \expandafter\expandafter\expandafter{%
167     \expandafter\llm@CarTwo#2{}-{}-{}\llm@nil
168   }%
169   \ifx\x\y
170     #2%
171     \def\llm@testopt{%
172       \noexpand\@testopt
173     }%
174   \fi
175 \fi
176 \ifx\llm@testopt\@empty
177 \else
178   \llm@protected\xdef\llm@GlobalTemp{%
179     \llm@testopt
180     \expandafter\noexpand\csname\string#1\endcsname
181     {\the\toks0}%
182   }%
183 \fi
184 \expandafter\endgroup\ifx\llm@testopt\@empty
185   \let#1=#2\relax
186 \else
187   \let#1=\llm@GlobalTemp
188   \expandafter\let\csname\string#1\expandafter\endcsname
189     \csname\string#2\endcsname
190 \fi
191 }{%
192   \let#1=#2\relax
193 }%
194 }

```

\llm@CheckParams

```

195 \def\llm@CheckParams#1:->#2\@nil{%
196   \begingroup
197     \def\x{#1}%
198     \ifx\x\llm@macro
199       \endgroup
200       \def\llm@protected{%
201         \expandafter\@firstoftwo
202         \else
203           \ifx\x\llm@protectedmacro
204             \endgroup
205             \def\llm@protected{\protected}%
206             \expandafter\expandafter\expandafter\@firstoftwo
207             \else
208               \endgroup
209               \expandafter\expandafter\expandafter\@secondoftwo
210             \fi

```

```

211 \fi
212 }

\llm@macro

213 \def\llm@macro{macro}
214 \@onelevel@sanitize\llm@macro

\llm@protectedmacro

215 \def\llm@protectedmacro{\protected macro}
216 \@onelevel@sanitize\llm@protectedmacro

\llm@CarThree

217 \def\llm@CarThree#1#2#3#4\llm@nil{#1#2#3}%

\llm@CarTwo

218 \def\llm@CarTwo#1#2#3\llm@nil{#1#2}%

219 \llm@AtEnd
220 \end{package}

```

## 3 Test

### 3.1 Catcode checks for loading

```

221 \test1
222 \NeedsTeXFormat{LaTeX2e}
223 \documentclass{minimal}
224 \makeatletter
225 \def\RestoreCatcodes{}
226 \count@=0 %
227 \loop
228   \edef\RestoreCatcodes{%
229     \RestoreCatcodes
230     \catcode\the\count@=\the\catcode\count@\relax
231   }%
232 \ifnum\count@<255 %
233   \advance\count@\@ne
234 \repeat
235
236 \def\RangeCatcodeInvalid#1#2{%
237   \count@=#1\relax
238   \loop
239     \catcode\count@=15 %
240     \ifnum\count@<#2\relax
241       \advance\count@\@ne
242     \repeat
243 }
244 \def\Test{%
245   \RangeCatcodeInvalid{0}{47}%
246   \RangeCatcodeInvalid{58}{64}%
247   \RangeCatcodeInvalid{91}{96}%
248   \RangeCatcodeInvalid{123}{127}%
249   \catcode'\@=12 %
250   \catcode'\=0 %
251   \catcode'\{=1 %
252   \catcode'\}=2 %
253   \catcode'\#=6 %
254   \catcode'\[=12 %
255   \catcode'\]=12 %
256   \catcode'\%=14 %
257   \catcode'\ =10 %

```

```

258 \catcode13=5 %
259 \RequirePackage{letltxmacro}[2008/06/13]\relax
260 \RestoreCatcodes
261 }
262 \Test
263 \csname @@end\endcsname
264 \end
265 \test1\

```

## 3.2 Package tests

```

266 \test2\
267 \NeedsTeXFormat{LaTeX2e}
268 \nofiles
269 \documentclass{minimal}
270
271 \usepackage{letltxmacro}[2008/06/13]
272
273 \usepackage{qstest}
274 \IncludeTests{*}
275 \LogTests{log}{*}{*}
276
277 \makeatletter
278
279 \def\TestDef#1{%
280   \begingroup
281     \@makeother\%
282     \@makeother\%
283     \expandafter\@TestDef\csname #1\endcsname
284 }
285 \def\@TestDef#1#2{%
286   \edef\a{\expandafter\strip@prefix\meaning#1}%
287   \edef\b{\detokenize{#2}}%
288   \ifx\a\b
289     \else
290       \typeout{1 [\a]}%
291       \typeout{2 [\b]}%
292     \fi
293   \endgroup
294   \Expect*{\expandafter\strip@prefix\meaning#1}*{\detokenize{#2}}%
295 }
296 \def\TestEquals#1#2{%
297   \Expect*{%
298     \expandafter\ifx\csname#1\expandafter\endcsname
299       \csname#2\endcsname
300     equals%
301     \else
302     wrong%
303     \fi
304   }{equals}%
305 }
306 \def\SaveA{%
307   \let\SavedA\TestA
308   \expandafter\let\csname\string\SavedA\expandafter\endcsname
309     \csname\string\TestA\endcsname
310   \expandafter\let\csname SavedA \expandafter\endcsname
311     \csname TestA \endcsname
312 }
313 \def\CheckA{%
314   \TestEquals{SavedA}{TestA}%
315   \TestEquals{\string\SavedA}{\string\TestA}%
316   \TestEquals{SavedA }{TestA }%
317 }

```



```

318
319 \begin{qstest}{robust}{robust}
320   \DeclareRobustCommand*{\TestA}{Test}%
321   \SaveA
322   \TestDef{TestA}{\protect \TestA }%
323   \CheckA
324   \DeclareRobustCommand{\TestA}{Test}%
325   \SaveA
326   \TestDef{TestA}{\protect \TestA }%
327   \LetLtxMacro\TestB\TestA
328   \TestDef{TestB}{\protect \TestB }%
329   \TestEquals{TestB }{TestA }%
330   \CheckA
331 \end{qstest}
332
333 \begin{qstest}{default}{default}
334   \newcommand{\TestA}[1][\relax default \empty]{TestA #1}%
335   \SaveA
336   \TestDef
337   {TestA}{\@protected@testopt \TestA \TestA {\relax default \empty }}%
338   \LetLtxMacro\TestB\TestA
339   \TestDef
340   {TestB}{\@protected@testopt \TestB \TestB {\relax default \empty }}%
341   \CheckA
342 \end{qstest}
343
344 \begin{qstest}{robustdefault}{robustdefault}
345   \DeclareRobustCommand{\TestA}[1][\default]{TestA}%
346   \SaveA
347   \LetLtxMacro\TestB\TestA
348   \TestDef{TestB}{\protect \TestB }%
349   \TestDef{TestB }{\@protected@testopt \TestB \TestB {\default }}%
350   \CheckA
351 \end{qstest}
352
353 \begin{qstest}{plain}{plain}
354   \LetLtxMacro\NewRelax\relax
355   \Expect*{\meaning\relax}*{\string\relax}%
356   \Expect*{\meaning\NewRelax}*{\string\relax}%
357   \LetLtxMacro\NewHbox\hbox
358   \Expect*{\meaning\hbox}*{\string\hbox}%
359   \Expect*{\meaning\NewHbox}*{\string\hbox}%
360   \LetLtxMacro\NewEmpty\empty
361   \Expect*{\meaning\empty}{macro:->}%
362   \Expect*{\meaning\NewEmpty}{macro:->}%
363   \def\TestA{\iffalse}%
364   \LetLtxMacro\TestB\TestA
365   \TestDef{TestB}{\iffalse }%
366   \TestEquals{TestA}{TestB}%
367 \end{qstest}
368 \usepackage{etoolbox}[2008/06/12]
369
370 \begin{qstest}{newrobustcmd}{oldnewrobustcmd}
371   \protected\edef\TestA{%
372     \noexpand\@testopt
373     \expandafter\noexpand\csname\string\TestA\endcsname
374     {\noexpand\default}%
375   }%
376   \expandafter\protected\expandafter
377   \def\csname\string\TestA\endcsname{TestA}%
378   \SaveA
379   \LetLtxMacro\TestB\TestA

```

```

380 \TestDef{TestB}{\@testopt \TestB {\default }}%
381 \protected\edef\TestC{%
382   \noexpand\@testopt
383   \expandafter\noexpand\csname\string\TestB\endcsname
384   {\noexpand\default}}%
385 }%
386 \TestEquals{TestB}{TestC}%
387 \CheckA
388 \end{qstest}
389
390 \begin{qstest}{newrobustcmd}{newrobustcmd}
391   \newrobustcmd{\TestA}[1][\default]{TestA}%
392   \SaveA
393   \LetLtxMacro\TestB\TestA
394   \TestDef{TestB}{\@protected@testopt \TestB \TestB {\default }}%
395   \protected\edef\TestC{%
396     \noexpand\@protected@testopt
397     \noexpand\TestB
398     \expandafter\noexpand\csname\string\TestB\endcsname
399     {\noexpand\default}}%
400   }%
401   \TestEquals{TestB}{TestC}%
402   \CheckA
403 \end{qstest}
404
405 \begin{qstest}{robustifyopt}{robustifyopt}
406   \newcommand{\TestA}[2][\default]{}%
407   \TestDef{TestA}{\@protected@testopt \TestA \TestA {\default }}%
408   \robustify\TestA
409   \TestDef{TestA}{\@protected@testopt \TestA \TestA {\default }}%
410   \protected\edef\TestC{%
411     \noexpand\@protected@testopt
412     \noexpand\TestA
413     \expandafter\noexpand\csname\string\TestA\endcsname
414     {\noexpand\default}}%
415   }%
416   \TestEquals{TestA}{TestC}%
417   \SaveA
418   \LetLtxMacro\TestB\TestA
419   \TestDef{TestB}{\@protected@testopt \TestB \TestB {\default }}%
420   \protected\edef\TestC{%
421     \noexpand\@protected@testopt
422     \noexpand\TestB
423     \expandafter\noexpand\csname\string\TestB\endcsname
424     {\noexpand\default}}%
425   }%
426   \TestEquals{TestB}{TestC}%
427   \CheckA
428 \end{qstest}
429
430 \begin{qstest}{robustifydeclare}{robustifydeclare}
431   \DeclareRobustCommand\TestA{\iffalse}%
432   \robustify\TestA
433   \SaveA
434   \LetLtxMacro\TestB\TestA
435   \TestDef{TestB}{\iffalse}%
436   \protected\long\def\TestC{\iffalse}%
437   \TestEquals{TestB}{TestC}%
438   \CheckA
439 \end{qstest}
440 \csname @@end\endcsname
441 </test2>

```

## 4 Installation

### 4.1 Download

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

[CTAN:macros/latex/contrib/oberdiek/letltxmacro.dtx](#) The source file.

[CTAN:macros/latex/contrib/oberdiek/letltxmacro.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](#)

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 letltxmacro.dtx
```

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

<code>letltxmacro.sty</code>	→ <code>tex/latex/oberdiek/letltxmacro.sty</code>
<code>letltxmacro.pdf</code>	→ <code>doc/latex/oberdiek/letltxmacro.pdf</code>
<code>letltxmacro-showcases.tex</code>	→ <code>doc/latex/oberdiek/letltxmacro-showcases.tex</code>
<code>test/letltxmacro-test1.tex</code>	→ <code>doc/latex/oberdiek/test/letltxmacro-test1.tex</code>
<code>test/letltxmacro-test2.tex</code>	→ <code>doc/latex/oberdiek/test/letltxmacro-test2.tex</code>
<code>letltxmacro.dtx</code>	→ <code>source/latex/oberdiek/letltxmacro.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, miK<sub>T</sub>E<sub>X</sub>, ...) relies on file name databases, you must refresh these. For example, teT<sub>E</sub>X users run `texhash` or `mktextlsr`.

---

<sup>1</sup><http://ftp.ctan.org/tex-archive/>

## 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 letltxmacro.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{letltxmacro.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 `pdfLATEX`:

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

## 5 History

[2008/06/09 v1.0]

- First version.

[2008/06/12 v1.1]

- Support for `etoolbox`'s `\newrobustcmd` added.

[2008/06/13 v1.2]

- Support for `etoolbox`'s `\robustify` added.

## 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		
	<code>\@TestDef</code>	283, 285
<code>\#</code>	<code>\@backslashchar</code>	21
<code>\%</code>	<code>\@empty</code>	142, 176, 184
<code>\@</code>	<code>\@firstoftwo</code>	201, 206
<code>\@@end</code>	<code>\@gobble</code>	115, 121, 124, 125, 127, 128, 137



<b>S</b>		
\SaveA .....	306, 321,	\TestC ..... 381, 395, 410, 420, 436
	325, 335, 346, 378, 392, 417, 433	\TestDef ..... 279, 322,
\SavedA .....	307, 308, 315	326, 328, 336, 339, 348, 349,
\ShowCmdName .....	7, 16, 17, 18, 19	365, 380, 394, 407, 409, 419, 435
\ShowCmds .....	15, 29	\TestEquals .... 296, 314, 315, 316,
\ShowDef <u>22</u> , 34, 37, 40, 47, 50, 55, 59, 63		329, 366, 386, 401, 416, 426, 437
\space .....	10	\the ... 76, 77, 78, 79, 90, 105, 181, 230
\strip@prefix .....	286, 294	\TMP@EnsureCode ..... 87,
		94, 95, 96, 97, 98, 99, 100, 101, 102
<b>T</b>		\toks@ ..... 140, 181
\Test .....	244, 262	\typeout ..... 5, 32, 43, 67, 290, 291
\TestA . 307, 309, 315, 320, 322, 324,		
	326, 327, 334, 337, 338, 345,	<b>U</b>
	347, 363, 364, 371, 373, 377,	\usepackage ..... 271, 273, 368
	379, 391, 393, 406, 407, 408,	
	409, 412, 413, 418, 431, 432, 434	<b>X</b>
\TestB . 327, 328, 338, 340, 347, 348,		\x 74, 82, 143, 153, 160, 169, 197, 198, 203
	349, 364, 379, 383, 393, 394,	
	397, 398, 418, 419, 422, 423, 434	<b>Y</b>
		\y ..... 149, 153, 165, 169