

# The etexcmds package

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2016/05/16 v1.6

## Abstract

New primitive commands are introduced in  $\varepsilon$ -TeX. Sometimes the names collide with existing macros. This package solves this name clashes by adding a prefix to  $\varepsilon$ -TeX's commands. For example,  $\varepsilon$ -TeX's `\unexpanded` is provided as `\etex@unexpanded`.

## Contents

<b>1</b>	<b>Documentation</b>	<b>2</b>
1.1	<code>\unexpanded</code> . . . . .	2
1.2	<code>\expanded</code> . . . . .	2
<b>2</b>	<b>Implementation</b>	<b>2</b>
2.1	Reload check and package identification . . . . .	2
2.2	Catcodes . . . . .	3
2.3	Provide <code>\newif</code> . . . . .	4
2.4	Load package <code>infwarerr</code> . . . . .	4
2.5	<code>\unexpanded</code> . . . . .	5
2.6	<code>\expanded</code> . . . . .	6
<b>3</b>	<b>Installation</b>	<b>7</b>
3.1	Download . . . . .	7
3.2	Bundle installation . . . . .	7
3.3	Package installation . . . . .	7
3.4	Refresh file name databases . . . . .	8
3.5	Some details for the interested . . . . .	8
<b>4</b>	<b>History</b>	<b>8</b>
	[2007/05/06 v1.0] . . . . .	8
	[2007/09/09 v1.1] . . . . .	8
	[2007/12/12 v1.2] . . . . .	8
	[2010/01/28 v1.3] . . . . .	8
	[2011/01/30 v1.4] . . . . .	8
	[2011/02/16 v1.5] . . . . .	9
	[2016/05/16 v1.6] . . . . .	9
<b>5</b>	<b>Index</b>	<b>9</b>

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\*Please report any issues at <https://github.com/ho-tex/oberdiek/issues>

# 1 Documentation

## 1.1 `\unexpanded`

`\etex@unexpanded`

New primitive commands are introduced in  $\varepsilon$ -TeX. Unhappily `\unexpanded` collides with a macro in ConTeXt with the same name. This also affects the L<sup>A</sup>T<sub>E</sub>X world. For example, package `m-ch-de` loads `base/syst-gen.tex` that redefines `\unexpanded`. Thus this package defines `\etex@unexpanded` to get rid of the name clash.

`\ifetex@unexpanded`

Package `etexcmds` can be loaded even if  $\varepsilon$ -TeX is not present or `\unexpanded` cannot be found. The switch `\ifetex@unexpanded` tells whether it is safe to use `\etex@unexpanded`. The switch is true (`\iftrue`) only if the primitive `\unexpanded` has been found and `\etex@unexpanded` is available.

## 1.2 `\expanded`

Probably `\expanded` will be added in pdfTeX 1.50 and LuaTeX. Again ConTeXt defines this as macro. Therefore version 1.2 of this packages also provides `\etex@expanded` and `\ifetex@unexpanded`.

# 2 Implementation

```
1 (*package)
```

## 2.1 Reload check and package identification

Reload check, especially if the package is not used with L<sup>A</sup>T<sub>E</sub>X.

```
2 \begingroup\catcode61\catcode48\catcode32=10\relax%
3 \catcode13=5 % ^~M
4 \endlinechar=13 %
5 \catcode35=6 % #
6 \catcode39=12 % '
7 \catcode44=12 % ,
8 \catcode45=12 % -
9 \catcode46=12 % .
10 \catcode58=12 % :
11 \catcode64=11 % @
12 \catcode123=1 % {
13 \catcode125=2 % }
14 \expandafter\let\expandafter\x\csname ver@etexcmds.sty\endcsname
15 \ifx\x\relax % plain-TeX, first loading
16 \else
17 \def\empty{}%
18 \ifx\x\empty % LaTeX, first loading,
19 % variable is initialized, but \ProvidesPackage not yet seen
20 \else
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{etexcmds}{The package is already loaded}%
29     \aftergroup\endinput
30   \fi
31 \fi
32 \endgroup%
Package identification:
33 \begingroup\catcode61\catcode48\catcode32=10\relax%
34   \catcode13=5 % ^^M
35   \endlinechar=13 %
36   \catcode35=6 % #
37   \catcode39=12 % '
38   \catcode40=12 % (
39   \catcode41=12 % )
40   \catcode44=12 % ,
41   \catcode45=12 % -
42   \catcode46=12 % .
43   \catcode47=12 % /
44   \catcode58=12 % :
45   \catcode64=11 % @
46   \catcode91=12 % [
47   \catcode93=12 % ]
48   \catcode123=1 % {
49   \catcode125=2 % }
50 \expandafter\ifx\csname ProvidesPackage\endcsname\relax
51   \def\x#1#2#3[#4]{\endgroup
52     \immediate\write-1{Package: #3 #4}%
53     \xdef#1{#4}%
54   }%
55 \else
56   \def\x#1#2[#3]{\endgroup
57     #2[#{#3}]%
58     \ifx#1\@undefined
59       \xdef#1{#3}%
60     \fi
61     \ifx#1\relax
62       \xdef#1{#3}%
63     \fi
64   }%
65 \fi
66 \expandafter\x\csname ver@etexcmds.sty\endcsname
67 \ProvidesPackage{etexcmds}%
68 [2016/05/16 v1.6 Avoid name clashes with e-TeX commands (HO)]%

```

## 2.2 Catcodes

```

69 \begingroup\catcode61\catcode48\catcode32=10\relax%
70   \catcode13=5 % ^^M
71   \endlinechar=13 %
72   \catcode123=1 % {
73   \catcode125=2 % }
74   \catcode64=11 % @
75   \def\x{\endgroup
76     \expandafter\edef\csname etexcmds@AtEnd\endcsname{%
77       \endlinechar=\the\endlinechar\relax
78       \catcode13=\the\catcode13\relax

```

```

79      \catcode32=\the\catcode32\relax
80      \catcode35=\the\catcode35\relax
81      \catcode61=\the\catcode61\relax
82      \catcode64=\the\catcode64\relax
83      \catcode123=\the\catcode123\relax
84      \catcode125=\the\catcode125\relax
85    }%
86  }%
87  \x\catcode61\catcode48\catcode32=10\relax%
88  \catcode13=5 % ^^M
89  \endlinechar=13 %
90  \catcode35=6 % #
91  \catcode64=11 % @
92  \catcode123=1 % {
93  \catcode125=2 % }
94  \def\TMP@EnsureCode#1#2{%
95    \edef\etexcmds@AtEnd{%
96      \etexcmds@AtEnd
97      \catcode#1=\the\catcode#1\relax
98    }%
99    \catcode#1=#2\relax
100 }
101 \TMP@EnsureCode{39}{12}% '
102 \TMP@EnsureCode{40}{12}% (
103 \TMP@EnsureCode{41}{12}% )
104 \TMP@EnsureCode{44}{12}% ,
105 \TMP@EnsureCode{45}{12}% -
106 \TMP@EnsureCode{46}{12}% .
107 \TMP@EnsureCode{47}{12}% /
108 \TMP@EnsureCode{60}{12}% <
109 \TMP@EnsureCode{91}{12}% [
110 \TMP@EnsureCode{93}{12}% ]
111 \edef\etexcmds@AtEnd{%
112   \etexcmds@AtEnd
113   \escapechar\the\escapechar\relax
114   \noexpand\endinput
115 }
116 \escapechar=92 % backslash

```

## 2.3 Provide \newif

\etexcmds@newif

```

117 \def\etexcmds@newif#1{%
118   \expandafter\edef\csname etex@#1false\endcsname{%
119     \let
120     \expandafter\noexpand\csname ifetex@#1\endcsname
121     \noexpand\iffalse
122   }%
123   \expandafter\edef\csname etex@#1true\endcsname{%
124     \let
125     \expandafter\noexpand\csname ifetex@#1\endcsname
126     \noexpand\iftrue
127   }%
128   \csname etex@#1false\endcsname
129 }

```

## 2.4 Load package infwarerr

```

130 \begingroup\expandafter\expandafter\expandafter\endgroup
131 \expandafter\ifx\csname RequirePackage\endcsname\relax
132   \def\TMP@RequirePackage#1[#2]{%
133     \begingroup\expandafter\expandafter\expandafter\endgroup
134     \expandafter\ifx\csname ver@#1.sty\endcsname\relax
135       \input #1.sty\relax
136     \fi
137   }%
138   \TMP@RequirePackage{infwarerr}[2007/09/09]%
139   \TMP@RequirePackage{ifluatex}[2010/03/01]%
140 \else
141   \RequirePackage{infwarerr}[2007/09/09]%
142   \RequirePackage{ifluatex}[2010/03/01]%
143 \fi

```

## 2.5 \unexpanded

\ifetex@unexpanded

```

144 \etexcmds@newif{unexpanded}

```

\etex@unexpanded

```

145 \begingroup
146 \edef\x{\string\unexpanded}%
147 \edef\y{\meaning\unexpanded}%
148 \ifx\x\y
149   \endgroup
150   \let\etex@unexpanded\unexpanded
151   \etex@unexpandedtrue
152 \else
153   \edef\y{\meaning\normalunexpanded}%
154   \ifx\x\y
155     \endgroup
156     \let\etex@unexpanded\normalunexpanded
157     \etex@unexpandedtrue
158   \else
159     \edef\y{\meaning\@@unexpanded}%
160     \ifx\x\y
161       \endgroup
162       \let\etex@unexpanded\@@unexpanded
163       \etex@unexpandedtrue
164     \else
165       \ifluatex
166         \ifnum\luatexversion<36 %
167         \else
168           \begingroup
169             \directlua{%
170               tex.enableprimitives('etex@',{'unexpanded'})}%
171             }%
172             \global\let\etex@unexpanded\etex@unexpanded
173           \endgroup
174         \fi
175       \fi
176       \edef\y{\meaning\etex@unexpanded}%
177       \ifx\x\y
178         \endgroup
179         \etex@unexpandedtrue
180       \else
181         \endgroup
182         \@PackageInfoNoLine{etexcmds}{%

```

```

183         Could not find \string\unexpanded.\MessageBreak
184         That can mean that you are not using e-TeX or%
185         \MessageBreak
186         that some package has redefined \string\unexpanded.%
187         \MessageBreak
188         In the latter case, load this package earlier%
189     }%
190     \etex@unexpandedfalse
191 \fi
192 \fi
193 \fi
194 \fi

```

## 2.6 \expanded

\ifetex@expanded

```

195 \etexcmds@newif{expanded}

```

\etex@expanded

```

196 \begingroup
197 \edef\x{\string\expanded}%
198 \edef\y{\meaning\expanded}%
199 \ifx\x\y
200     \endgroup
201     \let\etex@expanded\expanded
202     \etex@expandedtrue
203 \else
204     \edef\y{\meaning\normalexpanded}%
205     \ifx\x\y
206         \endgroup
207         \let\etex@expanded\normalexpanded
208         \etex@expandedtrue
209     \else
210         \edef\y{\meaning\@@expanded}%
211         \ifx\x\y
212             \endgroup
213             \let\etex@expanded\@@expanded
214             \etex@expandedtrue
215         \else
216             \ifluatex
217                 \ifnum\luatexversion<36 %
218                 \else
219                     \begingroup
220                     \directlua{%
221                         tex.enableprimitives('etex@',{'expanded'})}%
222                     }%
223                     \global\let\etex@expanded\etex@expanded
224                 \endgroup
225             \fi
226         \fi
227         \edef\y{\meaning\etex@expanded}%
228         \ifx\x\y
229             \endgroup
230             \etex@expandedtrue
231         \else
232             \endgroup
233             \@PackageInfoNoLine{etexcmds}{%
234                 Could not find \string\expanded.\MessageBreak

```

```

235         That can mean that you are not using pdfTeX 1.50 or%
236         \MessageBreak
237         that some package has redefined \string\expanded.%
238         \MessageBreak
239         In the latter case, load this package earlier%
240     }%
241     \etex@expandedfalse
242 \fi
243 \fi
244 \fi
245 \fi

246 \etexcmds@AtEnd%
247 \endpackage

```

## 3 Installation

### 3.1 Download

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

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

[CTAN:macros/latex/contrib/oberdiek/etexcmds.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  $\TeX$  Files” ([CTAN:pkg/tds](#)). Directories with `texmf` in their name are usually organized this way.

### 3.2 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
```

### 3.3 Package installation

**Unpacking.** The `.dtx` file is a self-extracting docstrip archive. The files are extracted by running the `.dtx` through plain  $\TeX$ :

```
tex etexcmds.dtx
```

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

```

etexcmds.sty → tex/generic/oberdiek/etexcmds.sty
etexcmds.pdf → doc/latex/oberdiek/etexcmds.pdf
etexcmds.dtx → source/latex/oberdiek/etexcmds.dtx

```

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`.

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<sup>1</sup>[CTAN:pkg/etexcmds](#)

### 3.4 Refresh file name databases

If your  $\text{\TeX}$  distribution ( $\text{\TeX}$  Live,  $\text{mik}\text{\TeX}$ , ...) relies on file name databases, you must refresh these. For example,  $\text{\TeX}$  Live users run `texhash` or `mktextlsr`.

### 3.5 Some details for the interested

**Unpacking with  $\text{\LaTeX}$ .** The `.dtx` chooses its action depending on the format:

**plain  $\text{\TeX}$ :** Run `docstrip` and extract the files.

**$\text{\LaTeX}$ :** Generate the documentation.

If you insist on using  $\text{\LaTeX}$  for `docstrip` (really, `docstrip` does not need  $\text{\LaTeX}$ ), then inform the autodetect routine about your intention:

```
latex \let\install=y\input{etexcmds.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  $\text{pdf}\text{\LaTeX}$ :

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

## 4 History

[2007/05/06 v1.0]

- First version.

[2007/09/09 v1.1]

- Documentation for `\ifetex@unexpanded` added.
- Catcode section rewritten.

[2007/12/12 v1.2]

- `\etex@expanded` added.

[2010/01/28 v1.3]

- Compatibility to  $\text{ini}\text{\TeX}$  added.

[2011/01/30 v1.4]

- Already loaded package files are not input in plain  $\text{\TeX}$ .



[2011/02/16 v1.5]

- Using LuaTeX's `tex.enableprimitives` if available.

[2016/05/16 v1.6]

- Documentation updates.

## 5 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; plain numbers refer to the code lines where the entry is used.

Symbols	
<code>\@@expanded</code> . . . . .	210, 213
<code>\@@unexpanded</code> . . . . .	159, 162
<code>\@PackageInfoNoLine</code> . . . . .	182, 233
<code>\@undefined</code> . . . . .	58
A	
<code>\aftergroup</code> . . . . .	29
C	
<code>\catcode</code> 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 33, 34, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 69, 70, 72, 73, 74, 78, 79, 80, 81, 82, 83, 84, 87, 88, 90, 91, 92, 93, 97, 99	
<code>\csname</code> . . . . .	14, 21, 50, 66, 76, 118, 120, 123, 125, 128, 131, 134
D	
<code>\directlua</code> . . . . .	169, 220
E	
<code>\empty</code> . . . . .	17, 18
<code>\endcsname</code> . . . . .	14, 21, 50, 66, 76, 118, 120, 123, 125, 128, 131, 134
<code>\endinput</code> . . . . .	29, 114
<code>\endlinechar</code> . . . . .	4, 35, 71, 77, 89
<code>\escapechar</code> . . . . .	113, 116
<code>\etex@expanded</code> . . . . .	<u>196</u>
<code>\etex@expandedfalse</code> . . . . .	241
<code>\etex@expandedtrue</code> . . . . .	202, 208, 214, 230
<code>\etex@unexpanded</code> . . . . .	2, <u>145</u>
<code>\etex@unexpandedfalse</code> . . . . .	190
<code>\etex@unexpandedtrue</code> . . . . .	151, 157, 163, 179
<code>\etexcmds@AtEnd</code> . . . . .	95, 96, 111, 112, 246
<code>\etexcmds@newif</code> . . . . .	<u>117</u> , 144, 195
<code>\expanded</code> . . . . .	197, 198, 201, 234, 237
I	
<code>\ifetex@expanded</code> . . . . .	<u>195</u>
<code>\ifetex@unexpanded</code> . . . . .	2, <u>144</u>
<code>\iffalse</code> . . . . .	121
<code>\ifluatex</code> . . . . .	165, 216
<code>\ifnum</code> . . . . .	166, 217
<code>\iftrue</code> . . . . .	126
L	
<code>\luatexversion</code> . . . . .	166, 217
M	
<code>\meaning</code> . . . . .	147, 153, 159, 176, 198, 204, 210, 227
<code>\MessageBreak</code> . . . . .	183, 185, 187, 234, 236, 238
N	
<code>\normalexpanded</code> . . . . .	204, 207
<code>\normalunexpanded</code> . . . . .	153, 156
P	
<code>\PackageInfo</code> . . . . .	26
<code>\ProvidesPackage</code> . . . . .	19, 67
R	
<code>\RequirePackage</code> . . . . .	141, 142
T	
<code>\the</code> 77, 78, 79, 80, 81, 82, 83, 84, 97, 113	
<code>\TMP@EnsureCode</code> . . . . .	94, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110
<code>\TMP@RequirePackage</code> . . . . .	132, 138, 139
U	
<code>\unexpanded</code> . . . . .	146, 147, 150, 183, 186
W	
<code>\write</code> . . . . .	23, 52
X	
<code>\x</code> . . . . .	14, 15, 18, 22, 26, 28, 51, 56, 66, 75, 87, 146, 148, 154, 160, 177, 197, 199, 205, 211, 228
Y	
<code>\y</code> . . . . .	147, 148, 153, 154, 159, 160, 176, 177, 198, 199, 204, 205, 210, 211, 227, 228