The `skeycommand` Package[☆]

Version 0.4

This package has been superseded by the key command and key environment commands of the `ltxkeys` package. It is maintained only for the sake of those already using it. Prospective users should instead employ the facilities of the `ltxkeys` package.

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SUMMARY

The `skeycommand` package provides tools for defining LATEX-style commands and environments using parameters and keys together. The advantages of keys over parameters include the facts that the former aren't limited to nine but can rise as desired by the user, and keys are much easier to match to their values than parameters to arguments, especially if the parameters are many. Moreover, keys can have natural functions. The design approach and user interfaces in the `skeycommand` package differ from those found in the `keycommand` package. This package also provides the `\newtwooptcmd` and `\newtwooptenviron` macros for defining new commands and environments with two options/optional arguments. At both key command definition and invocation times there is no reference by the user to the semantics of key parsing and management. All the complex semantics and calculations involved in defining and setting keys are transparent to the user. The user of the `skeycommand` package has access to some of the machinery of `ltxkeys` package (including the pointer mechanism) at the much lesser cost of worrying only about the key names and their values. Native boolean keys are automatically recognized and handled appropriately. However, because of the need to keep the user interface simple, choice and style keys aren't available in this package.

[☆] The package is available at http://mirror.ctan.org/macros/latex/contrib/skeycommand/.

1   Package options

The package has only one option (namely, `verbose`) and can be invoked at the time of loading the package or via the `\skeycommand` macro. The option `verbose` is a boolean, initially set to false (i. e., its complement, `silent`, is true by default). Setting `silent` to `false` is tantamount to setting `verbose` to `true`.

___ Example: Package options ___

```
1  % In style or class files:
2  \RequirePackage[verbose=true or false]{skeycommand}
3  % In document files:
4  \usepackage[verbose=true or false]{skeycommand}
5  % In all cases:
6  \skeycommand{verbose=true or false}
```

If you enter the boolean `verbose` (or `silent`) without value, the value is assumed to be `true`. The `verbose` option is simply passed on to the `ltxkeys` package to log informational messages in the transcript file. The major task of key parsing for the `skeycommand` package is undertaken by the `ltxkeys` package.

2   User interfaces

2.1   Defining new key commands and environments

The user interfaces for defining new key commands and environments are as follows:

___ New macros: \newkeycmd, \renewkeycmd, \newkeyenviron, \renewkeyenviron ___

```
7   \newkeycmd⟨cmd⟩<⟨mp⟩>(⟨keyval⟩)[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}
8   \newkeycmd⋆⟨cmd⟩<⟨mp⟩>(⟨keyval⟩)[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}

9   \renewkeycmd⟨cmd⟩<⟨mp⟩>(⟨keyval⟩)[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}
10  \renewkeycmd⋆⟨cmd⟩<⟨mp⟩>(⟨keyval⟩)[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}

11  \newkeyenviron⟨env⟩<⟨mp⟩>(⟨keyval⟩)[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}
12  \newkeyenviron⋆⟨env⟩<⟨mp⟩>(⟨keyval⟩)[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}

13  \renewkeyenviron⟨env⟩<⟨mp⟩>(⟨keyval⟩)[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}
14  \renewkeyenviron⋆⟨env⟩<⟨mp⟩>(⟨keyval⟩)[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}
```

Here,

a) ⟨cmd⟩ is the new control sequence; ⟨env⟩ is the new environment name.

b) ⟨mp⟩ is the prefix for macros deriving from the defined keys whose values will be used in the new command or environment (this is called the *macro prefix* in the parlance of keys). If you don't supply the optional ⟨mp⟩, the package will use the first three letters of the key command or environment name, excluding the escape character but including an added 'at sign' (@). The aim of the default 'at sign' is to aid the visual separation of key names from macro prefixes.

c) ⟨keyval⟩ is the key-value list [e. g., (keya=valuea, keyb=valueb)].

d) ⟨narg⟩ is the number of parameters/arguments for the new command or environment (excluding the keys), as you would normally enter it in \newcommand and \newenvironment.

e) ⟨dft1⟩ is the default value for your optional argument (normally the first argument in \newcommand and \newenvironment).

f) ⟨defn⟩ is the replacement text (as in \newcommand and \newenvironment).

Note 2.1 The number of parameters (⟨narg⟩) for the new command or environment is limited to eight (8), and not the nine (9) that TeX allows. The ninth one is taken up by the keys. Indeed, we could have designed \newkeycmd, \renewkeycmd, \newkeyenviron, \renewkeyenviron to take nine parameters (apart from the keys) but the need for parameters is greatly diminished by the theoretically limitless number of keys that each command can have.

Please note the angle brackets surrounding ⟨mp⟩, and the parentheses surrounding ⟨keyval⟩ in the above syntaxes. The ⟨mp⟩ can't be empty (i. e., don't enter <>) because it will be used by the package to build unique names for the macros that will hold the key values. You can choose not to enter anything for ⟨mp⟩, i. e., no angled brackets at all. In this case the package will happily use the default prefix <xxx@>, where 'xxx' represents the first three letters of the new command or environment name, excluding the escape character. Also, ⟨keyval⟩ can't be empty: if it was empty, then we should wonder why you're using key commands instead of LaTeX's \newcommand and \newenvironment.

In ⟨defn⟩, you refer to your arguments in the normal way. You refer to the values of the keys using macros whose first three characters (after the escape character) are the ⟨mp⟩ or, if ⟨mp⟩ is not supplied, the first three letters of the declared key command (excluding the escape character). The family name of the keys defined via a key command is the key command name itself (without the escape character)—but the user is not required to know anything about such jargons as 'key families.' The package uses this internally in developing the keys. The key prefix is always 'KV.' If any of your key values contains parentheses, simply enclose them in braces, to avoid confusing them with ⟨keyval⟩ list.

The starred (⋆) variants give 'short' macros, while the plain (unstarred) variants yield 'long' macros, in the sense usually understood in LaTeX.

The optional ⟨mp⟩ will be useful if you fear clashes with previously defined key commands. Although, to be defined, key commands must be definable, two key commands may have their first three or four characters identical, thereby leading to clashes of their key-value prefixes.

2.2   Final tokens of every environment

The user can add some tokens to the very end of every subsequent environment by declaring those tokens in \skceveryeoe, which by default contains only LaTeX's \ignorespacesafterend, that is, the skeycommand package automatically issues

---
Example: \skceveryeoe
---

15 `\skceveryeoe{\ignorespacesafterend}`

It is important to note that new tokens are prepended (not appended) to the hook that underlies \skceveryeoe, such that by default \ignorespacesafterend always comes last in the list. You can empty the token list \skceveryeoe by issuing \skceveryeoe{} and rebuild the list afresh, still by prepending elements to it. \skceveryeoe isn't actually a token list register, but has been designed to behave like one. It is safe to issue \skceveryeoe{⟨token⟩} and/or \skceveryeoe{} in the pre-code part of the environment. The following example illustrates this point.

Example: \newkeyenviron

```
16  \newkeyenviron*{testenv}<mp@>(xwidth=2cm,ywidth=1.5cm,
17    bool=false,body=\null,author=\null){%
18    \centering\fbox{\parbox{\mp@xwidth}{\mp@body}}
19    \ifmp@bool\color{red}\fi
20    \fbox{\parbox{\mp@ywidth}{\mp@body}}%
21    \normalcolor
22    \skceveryeoe{}%
23    \skceveryeoe{\ignorespacesafterend}%
24    \skceveryeoe{\endgraf\vskip\baselineskip
25      \centerline{\itshape\mp@author}}
26    \def\testmacroa##1{aaa##1bbb}% just to test parameter use
27  }{%
28    \def\testmacrob##1{xxx##1yyy}%
29  }

30  \begin{document}
31  \begin{testenv}(xwidth=5cm,ywidth=4cm,bool=true,
32    author={Cornelius Tacitus \textup{(55--120~AD)}},body={%
33    Love of fame is the last thing even learned men can bear
34    to be parted from.
35  })%
36  \end{testenv}
37  \end{document}
```

Result of example code

Love of fame is the last thing even learned men can bear to be parted from.	Love of fame is the last thing even learned men can bear to be parted from.

2.3   Invoking new key commands and environments

The syntaxes for calling new key commands and environments are as follows:

Invoking commands and environments

```
38  \cmd[⟨arg1⟩]{⟨arg2⟩}...{⟨argn⟩}(⟨keyval⟩)

39  \begin{env}[⟨arg1⟩]{⟨arg2⟩}...{⟨argn⟩}(⟨keyval⟩)
40    environment body
41  \end{env}
```

---

where \cmd and env have been previously defined using key command and key environment. You refer to your arguments using parameter number one #1 onwards, up to a maximum of #8 (yes, #8,

not #9). Here, ⟨keyval⟩ (including the parenthesis) are optional arguments: you can omit them if
you want to use the values of the keys set at key command definition time. Using keys is preferable
to using parameters: you don't have to match parameters to arguments and, in principle, there is
no limit to the number of keys that are permissible.

2.4   Commands and environments with two optional arguments

The skeycommand package uses the following macros internally. They can be used to define new
commands and environments with two optional arguments. Their philosophy, intent, and use
syntaxes differ from those of the twoopt package. They may be useful to some users in a few
circumstances, but I recommend the use of the above key commands in all instances.

```
                    New macros: \newtwooptcmd, \newtwooptenviron, etc
42    \newtwooptcmd⟨cmd⟩[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}
43    \newtwooptcmd*⟨cmd⟩[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}

44    \renewtwooptcmd⟨cmd⟩[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}
45    \renewtwooptcmd*⟨cmd⟩[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}

46    \newtwooptenviron⟨cmd⟩[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}
47    \newtwooptenviron*⟨cmd⟩[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}

48    \renewtwooptenviron⟨cmd⟩[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}
49    \renewtwooptenviron*⟨cmd⟩[⟨narg⟩][⟨dft1⟩]{⟨defn⟩}
```

⟨narg⟩ is the total number of arguments, including the first and second optional arguments. Where
are the second optional arguments here, you might be wondering? The second optional argument
is usually empty and doesn't appear at command definition time. The second optional argument
isn't the second argument of your command (as in twoopt package), but the last. At command
invocation, if you don't supply a value for the second optional argument, the command will assume
it to be empty. But how do you supply a value for the second optional argument? The next section
shows how.

2.4.1   Invoking commands and environments with two optional arguments

The syntaxes for calling commands and environments with two optional arguments are as follows:

```
              Macro: Commands and environments with two optional arguments
50    \cmd[⟨1st optarg⟩]{⟨arg2⟩}...{⟨argn⟩}(⟨2nd optarg⟩)

51    \begin{env}[⟨1st optarg⟩]{⟨arg2⟩}...{⟨argn⟩}(⟨2nd optarg⟩)
52      environment body
53    \end{env}
```

If ⟨2nd optarg⟩ is empty at command or environment invocation, the command or environment
will assume it to be empty. Now you can see the conceptual link between \newtwooptcmd (and
friends) and \newkeycmd (and friends).

3   EXAMPLES

The source codes for the following examples are available in the accompanying user guide (file
skeycommand-guide.tex).

```
                          ┌─ Example: \newkeycmd ─┐

54    % The following is a macro of 3 parameters and 4 keys:
55    \newkeycmd*\demomacro(name=Steve,height=1.60m,weight=75kg,
56      tested=true)[3][Registered]{%
57      \def\x{#1}\def\y{#2}\def\z{#3}%
58      \noindent\rule{4cm}{1pt}\endgraf\smallskip
59      \noindent\textcolor{blue}{\textttt{\string\demomacro}} macro:
60      \endgraf\medskip
61      \ifdem@tested
62        \edef\cleared{\dem@name}%
63        \noindent\fbox{Name given: \dem@name}%
64      \else
65        \let\cleared\relax
66        Name not given
67      \fi
68      \endgraf\medskip
69      \noindent \x, \y, \z
70      \endgraf\smallskip
71      \noindent\rule{4cm}{1pt}%
72      \def\testmacro##1{xxx##1yyy}%
73    }
74    % \dem@name will hold the value supplied for 'name' by the user of
75    % \demomacro. 'dem' is from 'demomacro'. Notice the LaTeX-like
76    % syntax of this command. The user doesn't have to bother about
77    % the nitty-gritty of key infrastructure.

78    % You can use the following statement to instruct the user
79    % to always supply value for 'name' in \demomacro macro:
```

Result of example code

───────────────

\demomacro macro:

┌─────────────────────┐
│ Name given: John Stone │
└─────────────────────┘

data1, data2, data3

───────────────

The following requires the user to always supply a value for 'name:'

```
                          ┌─ Example: \newkeycmd ─┐

80    \newkeycmd*\demomacro(\needvalue{name}=Steve,height=1.60m,wieght=75kg,tested=true)
81      [3][Registered]{%
82      \def\x{#1}\def\y{#2}\def\z{#3}%
83      \noindent\rule{4cm}{1pt}\endgraf\smallskip
84      \noindent\textcolor{blue}{\textttt{\string\demomacro}} macro:
85      \endgraf\medskip
86      \ifdem@tested
87        \edef\cleared{\dem@name}%
```

```
88        \noindent\fbox{Name given: \dem@name}%
89      \else
90        \let\cleared\relax
91        Name not given
92      \fi
93      \endgraf\medskip
94      \noindent \x, \y, \z
95      \endgraf\smallskip
96      \noindent\rule{4cm}{1pt}%
97    }

98    % User now calls the \demomacro macro:
99    \demomacro[data1]{data2}{data3}(name,height=1.55m,wieght=55kg,
100       tested=true)
101       → Error: no value supplied for 'name'
```

If for any key in \demomacro you don't supply a key-value pair, the macro will use the above default value of that key. For example, in the following, the key height is missing, so the macro will use its default value specified at key definition time:

Example

```
102   \demomacro[data1]{data2}{data3}(name=John,weight=55kg,tested=true)
```

Example: \newkeycmd

```
103   \newkeycmd*\firstmacro<skc@>(name=Steve,height=1.6m)[8][xxx]{%
104      \noindent\textcolor{purple}{\textttt{\string\firstmacro}} macro:
105      \endgraf\vskip.25\baselineskip
106      \noindent Name: \skc@name\\Height: \skc@height\\
107      Details: #1#2#3#4#5#6#7#8\endgraf
108   }

109   \begin{document}
110   \firstmacro[1]{-2}{-3}{-4}{-5}{-6}{-7}{-8}%
111      (name=John {(Winner)},height=1.54m)
112   \end{document}
```

Result of example code

\firstmacro macro:

Name: John (Winner)
Height: 1.54m
Details: 1-2-3-4-5-6-7-8

Example: \newkeyenviron

```
113   \NewBoxes{MiniBox}
114   \newkeyenviron*{xboxedminipage}<boxm@>(width=\hsize,parindent=0em,
115      boxposition=center,innerposition=c,textposition=right,fboxrule=.4pt,
116      fboxsep=2pt){%
117      \begingroup
118      \fboxsep\boxm@fboxsep\fboxrule\boxm@fboxrule
```

```
119    \dimensionexpr!\BoxWidth{\boxm@width-2\fboxsep-2\fboxrule}%
120    \simpleexpandarg\CheckInput\boxm@boxposition{center,right,left,justified}{%
121      \edef\boxm@boxposition{%
122        \ifcase\nr center\or flushright\or flushleft\or\fi
123      }%
124    }{%
125      \SKC@err{Invalid value '\boxm@boxposition' for 'boxposition'}\@ehc
126    }%
127    \def\PrintBox{%
128      \simpleexpandarg\begin\boxm@boxposition
129      \fbox{\usebox{\MiniBox}}%
130      \simpleexpandarg\end\boxm@boxposition
131      \endgroup
132    }%
133    \begin{lrbox}{\MiniBox}%
134    \begin{minipage}[\boxm@innerposition]{\BoxWidth}%
135    \csname flush\boxm@textposition\endcsname
136    }{%
137      \end{minipage}\end{lrbox}\PrintBox
138    }
139    % Valid values for 'position' are 'right', 'left', 'center', and
140    % 'justified'.
```

Result of example code

A boxed minipage environment that accepts
verbatim text like this: `xxx_yyy_zzz`
`\verb+xxx+`.

Example: `\newkeyenviron`

```
141    \newkeyenviron*{vdescription}<skv@>(labelwidth=5pt,
142      labelsep=5pt)[2][\qquad]
143      {\begin{list}{}{\renewdef*\makelabel##1{\sffamily ##1:\hfil}%
144        \settowidth\labelwidth{\makelabel{#1}}%
145        \dimensionexpr!\leftmargin{\labelwidth+\skv@labelwidth
146        +\labelsep+\skv@labelsep}}%
147      \item[Description Preamble] #2%
148    }{\end{list}}

149    \begin{document}
150    \begin{vdescription}[Description Postamble]%
151      {$\star\star\star$}(labelwidth=10pt,labelsep=10pt)
152      \item[Item 1] xxx
153      \item[Item 2] yyy
154      \item[Description Postamble] $\langle$End of my
155        environment$\rangle$
156    \end{vdescription}
157    \end{document}
```

Result of example code

Description Preamble: $\langle \star \star \star \rangle$

Alexandre Pére Dumas (1802–1870):   All for one, and one for all.

Alexandre Fils Dumas (1824–1895):   All generalizations are dangerous, even this one.

Description Postamble: $\langle \bullet \bullet \bullet \rangle$

Example: \newkeyenviron

```
158  \newkeyenviron*{dialog}<dia@>(labelwidth=5pt,labelsep=5pt,
159    title=\null,source=\null,sourcecolor=blue)[1][\qquad]
160    {\begin{list}{}{\renewdef*\makelabel##1{\sffamily ##1:\hfil}%
161    \centering\textbf{\dia@title}%
162    \settowidth\labelwidth{\makelabel{#1}}%
163    \dimensionexpr!\leftmargin{\labelwidth+\dia@labelwidth
164      +\labelsep+\dia@labelsep}}%
165  }{%
166    \\\flushright\textcolor{\dia@sourcecolor}{\dia@source}%
167    \end{list}%
168  }

169  \begin{dialog}[Ramanujan](labelwidth=0pt,labelsep=0pt,
170      title={G. H. Hardy vs.\ Srinivasa Ramanujan (1920)},
171      source={S. Ramanujan (1887--1920), Collected Works})%
172    \item[Hardy] Srinivasa, can you see that number from here, the
173      one on that taxi cab?
174    \item[Ramanujan] I can see it, it is 1729.
175    \item[Hardy] What a dull registration number to have on your vehicle?
176    \item[Ramanujan] No, it is a very interesting number.
177    \item[Hardy] What is interesting about it?
178    \item[Ramanujan] It is the smallest number expressible as a sum of two
179      cubes in two different ways.
180    \item[Hardy] What are the different ways?
181    \item[Ramanujan] They are $1^3 + 12^3$ and $9^3 + 10^3$.
182    \item[Hardy] I am impressed! When did you work that out?
183  \end{dialog}
```

Result of example code

G. H. Hardy vs. Srinivasa Ramanujan (1920)

Hardy: Srinivasa, can you see that number from here, the one on that taxi cab?

Ramanujan: I can see it, it is 1729.

Hardy: What a dull registration number to have on your vehicle?

Ramanujan: No, it is a very interesting number.

Hardy: What is interesting about it?

Ramanujan: It is the smallest number expressible as a sum of two cubes in two different ways.

Hardy: What are the different ways?

Ramanujan: They are $1^3 + 12^3$ and $9^3 + 10^3$.

Hardy: I am impressed! When did you work that out?

S. Ramanujan (1887–1920), Collected Works

Example: \newkeyenviron

```
184  \def\@beeton{An author writing an article for publication
185    in TUGboat is encouraged to create it on a computer file
186    and submit it on magnetic tape.}
187  \def\beeton{Barbara BEETON,\\ \emph{How to Prepare a File For
188    Publication in TUGboat} (1981)}
189  \def\@hieronymus{The printer should refuse to employ wandering
190    men, foreigners who, after having committed some grievous
191    error, can easily disappear and return to their own country.}
192  \def\hieronymus{HIERONYMUS HORNSCHUCH (1608)}

193  % The macros \@beeton, \beeton, etc. are just shorthands:
194  % you can enter their contents directly in key commands,
195  % as we shall see later.

196  \newkeyenviron{Quote}<mp@>(left=\leftmargin,
197    right=\rightmargin,mode=false,whoby=\null,
198    source=\null){%
199    \begin{list}{}{%
200      \setlength\leftmargin{\mp@left}%
201      \setlength\rightmargin{\mp@right}%
202    }%
203    \item[]\makebox[0pt][r]{``}%
204  }{%
205    \unskip\makebox[0pt][l]{''}%
206    \item[] \flushright\mp@whoby
207    \item[] \flushleft\small Source: \mp@source
208    \end{list}
209    \vskip\baselineskip
210  }
211  \usepackage{lipsum}
212  \lipsum[1]
213  \begin{Quote}(left=30pt,right=30pt,mode=false,
214    whoby=\beeton,source={The \TeX Book})%
215    {\ifmp@mode\color{red}\else\color{blue}\fi\@beeton}
216  \end{Quote}

217  \lipsum[1]
218  \begin{Quote}(left=20pt,right=20pt,mode=true,
219    whoby=\hieronymus,source={The \TeX Book})%
220    {\ifmp@mode\color{red}\else\color{blue}\fi\@hieronymus}
221  \end{Quote}

222  \lipsum[1]
223  \begin{Quote}(left=40pt,right=40pt,mode=false,
224    whoby={EDWARD ELGAR},source={Letter to A.\ J.\ Jaeger (1898)})%
225    {\ifmp@mode\color{red}\else\color{blue}\fi
```

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```
226        If I write a tune you all say it's commonplace---if I
227        don't, you all say it's rot.%
228      }%
229    \end{Quote}

230    \begin{Quote}(left=40pt,right=40pt,mode=false,
231      whoby={ALBERT EINSTEIN},source={The World As I See It})%
232      {\ifmp@mode\color{red}\else\color{blue}\fi
233        If you want to find out anything from the theoretical physicists
234        about the methods they use, I advise you to stick closely to
235        one principle: don't listen to their words, fix your attention
236        on their deeds.%
237      }%
238    \end{Quote}
```

Result of example code

"An author writing an article for publication in TUGboat is encouraged to create it on a computer file and submit it on magnetic tape."

B. BEETON,
How to Prepare a File For Publication in TUGboat (1981)

Source: The TEXBook

"The printer should refuse to employ wandering men, foreigners who, after having committed some grievous error, can easily disappear and return to their own country."

HIERONYMUS HORNSCHUCH (1608)

Source: The TEXBook

"If I write a tune you all say it's commonplace—if I don't, you all say it's rot."

EDWARD ELGAR (1898)

Source: Letter to A. J. Jaeger

"If you want to find out anything from the theoretical physicists about the methods they use, I advise you to stick closely to one principle: don't listen to their words, fix your attention on their deeds."

ALBERT EINSTEIN

Source: The World As I See It

Example: `\newkeyenviron`

```
239    \usepackage{lipsum}
240    \newcounter{notecnt}
241    \def\noteparameters{\labelsep=\notelabelsep
242      \itemindent=\noteitemindent \leftmargin=\noteleft
243      \rightmargin=\noteright \labelwidth=\notelabelwidth}

244    \newkeyenviron*{notex}<note>(labelsep=8pt,itemindent=8pt,
245      left=\parindent,right=\parindent,labelwidth=0pt,
246      preskip=0ex,aftskip=0ex)[1][\baselineskip]%
247      {\begin{list}{\textsc{Note}~\arabic{notecnt}:}%
248        {\noteparameters\usecounter{notecnt}}%
249          \vskip#1}%
250      {\end{list}\vskip\noteaftskip}

251    \begin{document}
252    \noindent\lipsum[1]
253    \begin{notex}[\notepreskip](labelsep=8pt,itemindent=8pt,
254      left=30pt,right=30pt,labelwidth=0pt,preskip=2ex,aftskip=2ex)
255    \item \lipsum[1]
256    \item \lipsum[1]
257    \end{notex}
258    \end{document}
```

How to make a recurring list

Note 1 The play was a great success, but the audience was a disaster. (Oscar Wilde, 1854–1900)

Note 2 If people behaved in the way nations do they would all be put in straitjackets. (Tennessee Williams, 1911–1983)

Note 1 If you hate a person, you hate something in him that is part of yourself. What isn't part of ourselves doesn't disturb us. (Hermann Hesse, 1877-1962)

Note 2 If a man makes a better mouse-trap than his neighbor, though he builds his house in the woods, the world will make a beaten path to his door. (Ralph Waldo Emerson, 1803–1882)

Example: `\renewkeyenviron`

```
259    \def\sitation{}
260    \def\sitparameters{\leftmargin=\sit@left\rightmargin=\sit@right}
261    \newbox\sitname
262    \renewkeyenviron*{sitation}(left=\parindent,
263      right=\parindent,nolinebreak=1)[2][\relax]%
264      {\def\quoteend{#1}\sitparameters
265        \sbox\sitname{\textit{#2}}%
266        \begin{quote}\quoteend
267      }%
268      {\hspace*{\fill}\nolinebreak[\sit@nolinebreak]%
269        \quad\hspace*{\fill}\finalhyphendemerits\z@
270        \box\sitname
```

```
271        \end{quote}}

272    \begin{document}
273    \begin{sitation}[\sit@nolinebreak]%
274      {Theodore Roosevelt~(1858--1919)}%
275      (left=30pt,right=30pt,nolinebreak=2)
276      No man is justified in doing evil on the ground of expediency.
277    \end{sitation}

278    \begin{sitation}{George Bernard Shaw (1856-1950)}%
279    A man of great common sense and good taste; meaning thereby
280    a man without originality and/or moral courage.
281    \end{sitation}
282    \end{document}
```

Result of example code

> No man is justified in doing evil on the ground of expediency.
>
> *Theodore Roosevelt* (1858–1919)

> A man of great common sense and good taste; meaning thereby a man without originality and/or moral courage.   *George Bernard Shaw* (1856-1950)

Example: \newkeyenviron

```
283    \newkeyenviron*{vdescription}(labelwidth=5pt,
284      labelsep=5pt)[2][\qquad]%
285      {\begin{list}{}{\renewdef*\makelabel##1{\sffamily ##1:\hfil}%
286        \settowidth\labelwidth{\makelabel{#1}}%
287        \dimensionexpr!\leftmargin{\labelwidth+\vde@labelwidth
288          +\labelsep+\vde@labelsep}}%
289        \item[Description Preamble] #2%
290    }{\end{list}}

291    \begin{document}
292    \begin{vdescription}[Description Postamble]{+++xxx+++}%
293      (labelwidth=10pt,labelsep=5pt)
294      \item[Item 1] xxx
295      \item[Item 2] yyy
296      \item[Description Postamble] $\langle$End of my
297        environment$\rangle$
298    \end{vdescription}
299    \end{document}
```

Example: \renewtwooptenviron

```
300    \renewtwooptenviron*{vdescription}[3][\qquad]
301      {\begin{list}{}{\renewdef*\makelabel##1{\sffamily ##1:\hfil}%
302        \settowidth\labelwidth{\makelabel{#1}}%
303        \dimensionexpr!\leftmargin{\labelwidth+\labelsep+#2}}%
304        \item[Description Preamble] #3%
```

```
305      }{\end{list}}

306    \begin{document}
307    \begin{vdescription}[Description Postamble]{4cm}({(Begin
308      environment no.\ 1)})
309      \item[Item 1] xxx
310      \item[Item 2] yyy
311      \item[Description Postamble] (End of environment no.\ 1)
312    \end{vdescription}
313    \end{document}
```

Example: `\newtwooptenviron`

```
314    \newtwooptenviron*{udescription}[3][\hspace{1cm}]
315      {\begin{list}{}{\renewdef*\makelabel##1{\sffamily ##1:\hfil}%
316        \settowidth\labelwidth{\makelabel{#1}}%
317        \dimensionexpr!\leftmargin{\labelwidth+\labelsep+#3}}%
318        \item[Description Preamble] #2%
319      }{\end{list}}

320    \begin{document}
321    \begin{udescription}[Description Postamble]{uuu}(4cm)
322      \item[Item 1] xxx
323      \item[Item 2] yyy
324      \item[Description Postamble] The End
325    \end{udescription}
326    \end{document}
```

Result of example code

Preamble:	Beginning of quotations
John Ruskin (1819–1900):	Whereas it has long being known and declared that the poor have no right to the property of the rich, I wish it also to be known and declared that the rich have no right to the property of the poor.
Bertrand Russell (1872–1970):	The megalomaniac differs from the narcissist by the fact that he wishes to be powerful rather than charming, and seeks to be feared rather than loved. To this type belong many lunatics and most of the great men of history.
Postamble:	End of quotations

Example: `\renewkeycmd`

```
327    \def\firstmacro{}
328    \renewkeycmd*\firstmacro<skv@>(name=Steve,
329      module=Martian logic,pass=true)[2][\@ptsize]{%
330      \edef\x{\skv@name}%
331      \wlog{\if0#1 10pt\else\if1#1 11pt\else
332        \if2#1 12pt\fi\fi\fi\space font used}%
333      \def\y{#2}%
334    }
```

```
335    \firstmacro[0]{aaa}(name=John,module=Philosophy,pass=false)
```

—————————— Example: \newtwooptcmd ——————————
```
336    \newtwooptcmd*\macro[3][xxx]{\def\x{#1}\def\y{#2}\def\z{#3}}
337    \macro[uuu]{vvv}(www)
338    \macro{vvv}(www)
339    \macro{vvv}
```

—————————— Example: \newtwooptcmd ——————————
```
340    \undefcs\macro
341    \newtwooptcmd*\macro[2][xxx]{\def\x{#1}\def\y{#2}}
342    \macro[uuu](vvv)
343    \macro(vvv)
```

—————————— Example: \renewtwooptcmd ——————————
```
344    \renewtwooptcmd\macro[2][xxx]{\def\x{#1}\long\def\y{#2}}
345    \macro[uuu](\par)
346    \macro(\par)
```

—————————— Example: \newkeycmd ——————————
```
347    \let\ttcl\textcolor
348    \newkeycmd*\firstrule(raise=.5ex,width=1em,thick=2pt,
349      proclaim=false)[1]{%
350      \ttcl{blue}{\rule[\fir@raise]{\fir@width}{\fir@thick}}%
351      #1%
352      \ttcl{cyan}{\rule[\fir@raise]{\fir@width}{\fir@thick}}%
353      \iffir@proclaim \color{red}\fi\textdaggerdbl
354    }

355    \usepackage[left=2cm,right=2cm]{geometry}
356    \begin{document}
357    \parindent\z@
358    \begin{tabular*}\textwidth{lr}
359    \verb+\firstrule{Hello World}(width=2em,thick=4pt,
360      proclaim)+:&
361      \firstrule{Hello World}(width=2em,thick=4pt)\cr
362    \verb+\firstrule{Hello}(width=2em,thick=.5pt,
363      proclaim=true)+:&
364      \firstrule{Hello}(width=2em,thick=.5pt,proclaim=true)\cr
365    \verb+\firstrule{Hello World}(thick=2pt,
366      proclaim=true)+:&
367      \firstrule{Hello World}(thick=2pt,proclaim=true)\cr
368    \verb+\firstrule{Hello World}(raise=1ex,width=2em,
369      thick=1pt)+:&
370      \firstrule{Hello}(raise=1ex,width=2em,thick=1pt)
371    \end{tabular*}
372    \end{document}
```

Result of example code

```
\firstrule{HelloWorld}(width=2em,thick=4pt,proclaim):        ▬▬Hello World▬▬‡
\firstrule{Hello}(width=2em,thick=.5pt,proclaim=true):          ——Hello——‡
\firstrule{HelloWorld}(thick=2pt,proclaim=true):             ▬Hello World▬‡
\firstrule{HelloWorld}(raise=1ex,width=2em,thick=1pt):          ——Hello——‡
```

Example: `\newkeycmd`

```
373   \let\ttcl\textcolor
374   \newkeycmd\secondrule<mp@>(raise=.5ex,width=1em,thick=2pt,
375      proclaim=false)[2][\ttcl{magenta}{$\star$}]{%
376      \ttcl{cyan}{\rule[\mp@raise]{\mp@width}{\mp@thick}}%
377      #1#2#1%
378      \ttcl{blue}{\rule[\mp@raise]{\mp@width}{\mp@thick}}%
379      \ifmp@proclaim \color{red}\fi\textdaggerdbl
380   }
381   \usepackage[left=2cm,right=2cm]{geometry}
382   \begin{document}
383   \parindent\z@
384   \begin{tabular*}\textwidth{lr}
385   \verb+\secondrule[\textbullet]{Hello World}(width=2em,
386      thick=4pt,proclaim)+:&
387      \secondrule[\textbullet]{Hello World}(width=2em,
388         thick=4pt)\cr
389   \verb+\secondrule{Hello}(width=2em,thick=.5pt,
390      proclaim=true)+:&
391      \secondrule{Hello}(width=2em,thick=.5pt,proclaim=true)\cr
392   \verb+\secondrule{Hello World}(thick=2pt,
393      proclaim=true)+:&
394      \secondrule{Hello World}(thick=2pt,proclaim=true)\cr
395   \verb+\secondrule{Hello World}(raise=1ex,width=2em,
396      thick=1pt)+:&
397      \secondrule{Hello}(raise=1ex,width=2em,thick=1pt)
398   \end{tabular*}
399   \end{document}
```

Result of example code

```
\secondrule[\textbullet]{HelloWorld}(width=2em,thick=4pt,proclaim):   ▬•Hello World•▬‡
\secondrule{Hello}(width=2em,thick=.5pt,proclaim=true):              ——⋆Hello⋆——‡
\secondrule{HelloWorld}(thick=2pt,proclaim=true):                   ▬⋆Hello World⋆▬‡
\secondrule{HelloWorld}(raise=1ex,width=2em,thick=1pt):              ——•Hello•▬‡
```

4   VERSION HISTORY

The numbers on the right-hand side of the following lists are section numbers; the star sign (⋆) means the subject features in the package but is not reflected anywhere in this user guide.

Version 0.4   [2011/10/22]

Changed the key processing module from the `skeyval` package to the `ltxkeys` package.   .   ⋆

Improved the definition of `\skceveryeoe` . . . . subsection 2.2

Version 0.3 **[2010/05/21]**

Introduced `\skceveryeoe` . . . . subsection 2.2

Version 0.2 **[2010/05/20]**

Addressed the case of `\newkeycmd` without parameters . . . . ⋆

Version 0.1 **[2010/05/05]**

First public release . . . . ⋆

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