

The quoting package*

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Abstract

As an alternative to the L^AT_EX standard environments `quotation` and `quote`, the `quoting` package provides a consolidated environment for displayed text. First-line indentation is activated by adding a blank line before the `quoting` environment. A key–value interface allows to configure font properties and spacing and to control orphans within and after the environment.

1 Introduction

The L^AT_EX standard classes as well as many custom classes provide two environments for displayed text: `quotation` and `quote`. They can be described as follows:

[In] the `quotation` environment [...] text is indented on both sides relative to the normal page margins. Paragraphs within the environment are marked with an additional indentation of the first line.

[The `quote` environment is] [t]he same as the `quotation` environment except that the first line of a paragraph is not indented; instead, additional line spacing comes between paragraphs. [4, p. 480]

So when to prefer one environment to the other? A common suggestion is to use the `quotation` environment for quotes extending to several paragraphs so that the paragraph indentation matches that of the surrounding text [5–7]. For single-paragraph quotes one may either use `quote` or, in case the quoted text starts a new paragraph (which should be indicated by indentation), `quotation`.

Why didn't Leslie Lamport, the initial developer of L^AT_EX, implement a single environment for displayed text and provide control over its first-line indentation by other means, e.g. the presence of a blank line (or a `\par` command) before the environment? The likely reason is that Lamport envisaged an additional application of the `quote` environment, namely “a sequence of short quotations, separated by blank lines” [6, p. 24]. But such a sequence (which seems to be of limited use) could also be put into effect by stringing together several instances of a consolidated quoting environment.

Some unfavourable effects of `quotation` and `quote` in their present form are:

*This document corresponds to `quoting` v0.1c, dated 2014/01/28.

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- The `quotation` environment isn't suited for documents which use vertical spacing instead of indentation to denote the start of new paragraphs. If one retroactively adopts such a layout, one should change the definition of `\quotation` and `\endquotation` to `\quote` resp. `\endquote`.
- The side-by-side existence of two environments for displayed text narrows the utility of the `csquotes` package which provides higher-level wrapper environments, e.g. for quoting in a foreign language and specifying the source of citations. Currently, `csquotes` uses `quote` as a backend environment, but with L^AT_EX's default settings, this is not appropriate for multi-paragraph quotes.

2 Using the quoting package

As an alternative to `quotation` and `quote`, the `quoting` package provides a consolidated environment for displayed text. Besides being indented relative to the normal page margins, the `quoting` environment behaves as follows:

- A blank line before the environment marks a new paragraph, i.e. the environment's first line will be (additionally) indented in this case (assuming a positive `\parindent`). The mechanism also works for adjoining `quoting` environments of the same depth and for nested quotes.¹
- If a `quoting` environment directly follows a sectioning command (which may or may not be considered good style), its first line won't be indented.²
- As the start of a new paragraph is already indicated by first-line indentation, the vertical space before and after the `quoting` environment is kept constant (contrary to list environments like `itemize` and `enumerate`).
- Because the `quoting` environment uses a custom mechanism to control orphans³ within and after it, it is not affected by L^AT_EX bug 4065 (`\clubpenalty` not always being reset after list environments).

The options provided by `quoting` use the key–value interface ‘`<key>=<value>`’. Set them globally with `\usepackage[<options>]{quoting}` or for single environments with `\begin{quoting}[<options>]`. For boolean options, the default value is `false`, and specifying `<key>` is equivalent to `<key>=true`.

indentfirst An option that allows to override `quoting`'s indentation mechanism and to manually switch on/off first-line indentation. The permitted values are `auto`, `true`, and `false`. The default value is `auto`.⁴

¹See [3, p. 120–121] for an example of nested quotes.

²That is, unless the `@afterindent` switch was set to `true`, e.g. by loading the `indentfirst` package. In this case, the quote's first line will be indented.

³If a page break occurs after the first line of a paragraph, that line is referred to as “orphan”.

⁴The `indentfirst` option may act as a fallback solution for cases where `quoting`'s indentation mechanism fails. Currently, first lines will always be indented a) immediately after `\begin{document}` b) after a `sloppypar`, `center`, `flushleft`, or `flushright` environment. Thanks to Enrico Gregorio for pointing out `quoting`'s behaviour with respect to `sloppypar`, `center` & friends.

font The font used for typesetting the contents of a `quoting` environment. Permitted values are the names (without preceding backslash) of L^AT_EX's font-switching/formatting commands; e.g., use `font=itshape` to typeset quotes in italics. (By default, `quoting` uses the font/formatting of the surrounding text.) To specify several font properties, use a comma-separated list of font/formatting names, e.g., `font={itshape,raggedright}` (note the surrounding braces).⁵

font+ Font properties used for typesetting the contents of a `quoting` environment in addition to those properties specified by `font` (and previous calls of `font+`).

begintext Additional text (e.g., an opening quotation mark) to be typeset at the start of a `quoting` environment. By default, no text is added.

endtext Additional text (e.g., a closing quotation mark) to be typeset at the end of a `quoting` environment. By default, no text is added.

leftmargin The width of the environment's left-hand indentation relative to the surrounding text. The default value is `\leftmargin`.⁶

rightmargin The width of the environment's right-hand indentation relative to the surrounding text. By default, `rightmargin` matches `leftmargin`.

vskip The vertical space before and after a `quoting` environment. The default value is the sum of `\topsep` and `\partopsep`.

listvskip A boolean option that, if enabled, adjusts `quoting`'s vertical spacing to that of list environments (and ignores `vskip` in the process).

noorphanfirst A boolean option that controls whether orphans are prohibited in the first paragraph of a `quoting` environment.

noorphanafter A boolean option that controls whether orphans are prohibited directly after a `quoting` environment.

noorphans A shortcut boolean option enabling both `noorphanfirst` and `noorphanafter`.

`\quotingsetup` The command `\quotingsetup`, which takes a comma-separated list of key-value options as argument, allows to change the attributes of the `quoting` environment mid-document.

`\quotingfont` The options `font` and `font+` do not accept values which itself take an argument. In such cases you must resort to redefining the command `\quotingfont`, e.g. by including `\renewcommand*{\quotingfont}{\setstretch{1.5}}` in your document preamble (with the `setspace` package loaded).

⁵Before `quoting` v0.1b, `font+` had to be invoked for specifying several font properties.

⁶Note that the value of `\leftmargin` depends on the depth of the `quoting` environment, i.e. nested quotes will feature smaller indentation by default.

3 The package code

Announce the name and version of the package, which requires L^AT_EX 2_ε.

```
1 \NeedsTeXFormat{LaTeX2e}
2 \ProvidesPackage{quoting}
3 [2014/01/28 v0.1c Consolidated environment for displayed text]
```

We require the packages kvoptions (to conveniently specify options as key–value pairs) and etoolbox (e.g. for length assignments and boolean switch handling).

```
4 \RequirePackage{etoolbox,kvoptions}
```

We use quo@ as a short prefix to internal macros defined by kvoptions.

```
5 \SetupKeyvalOptions{family=quo,prefix=quo@}
```

`\quo@indentfirsttype` The key indentfirst takes a list of three values with associated functions and yields an error message if an unknown value is given. We use code snippets presented by Heiko Oberdiek and Joseph Wright in a series of messages on comp.text.tex [2].

```
6 \def\quo@in@false{\def\quo@indentfirsttype{0}}
7 \def\quo@in@true{\def\quo@indentfirsttype{1}}
8 \def\quo@in@auto{\def\quo@indentfirsttype{2}}
9 \define@key{quo}{indentfirst}{%
10 \ifcsname quo@in@#1\endcsname
11 \csname quo@in@#1\expandafter\endcsname
12 \else
13 \PackageError{quoting}{Unknown value #1 for option indentfirst}%
14 \fi
15 }
16 \setkeys{quo}{indentfirst=auto}
```

`\quotingfont` The keyval command `\define@key` is used to define the keys font and font+. With the help of `\docsvlist` (provided by etoolbox), we convert their comma-separated list of values to commands and use these commands to define `\quotingfont` resp. to append its definition. We use `\def\do` so that the options will also work if a class (e.g. scrbook, scrreprt) or another package uses `\let\do\relax`.

```
17 \newcommand*\quotingfont{}
18 \define@key{quo}{font}{%
19 \def\quotingfont{}%
20 \def\do##1{\appto{\quotingfont}{\csname ##1\endcsname}}%
21 \docsvlist{#1}%
22 }
23 \define@key{quo}{font+}{%
24 \def\do##1{\appto{\quotingfont}{\csname ##1\endcsname}}%
25 \docsvlist{#1}%
26 }
```

`\quo@begintext` We use kvoptions to define the keys begintext, endtext, leftmargin, and rightmargin
`\quo@endtext` and to set default values for the latter two.

```
\quo@leftmargin 27 \DeclareStringOption{begintext}
\quo@rightmargin
```

```

28 \DeclareStringOption{endtext}
29 \DeclareStringOption[\leftmargin]{leftmargin}
30 \DeclareStringOption[\qu@leftmargin]{rightmargin}

```

`\qu@toppartop` The length `\qu@toppartop` is set to the sum of `\topsep` and `\partopsep` and `\qu@vskip` used as the default value of the key `vskip`.

```

31 \newlength{\qu@toppartop}
32 \deflength{\qu@toppartop}{\topsep + \partopsep}
33 \DeclareStringOption[\qu@toppartop]{vskip}

```

We define the boolean options `listvskip`, `noorphanfirst`, and `noorphanafter`.

```

34 \DeclareBoolOption{listvskip}
35 \DeclareBoolOption{noorphanfirst}
36 \DeclareBoolOption{noorphanafter}

```

The shortcut boolean option `noorphans` will pass its value to `qu@noorphanfirst` and `qu@noorphanafter`. We then process our options.

```

37 \define@key{qu}{noorphans}[true]{%
38   \setbool{qu@noorphanfirst}{#1}%
39   \setbool{qu@noorphanafter}{#1}%
40 }
41 \ProcessKeyvalOptions*

```

`\quotingsetup` We define `\quotingsetup` as an alias of `\setkeys{qu}`.

```

42 \newcommand*\quotingsetup[1]{\setkeys{qu}{#1}}

```

The boolean switch `qu@afterqu` stores whether we are immediately (without a paragraph in between) following a quoting environment; the `qu@afterquclub` switch stores whether an orphan is permitted after the environment. (For the latter task, we don't use `qu@noorphanafter` directly because its state needs to be forwarded outside the group established by the current environment.)

```

43 \newbool{qu@afterqu}
44 \newbool{qu@afterquclub}

```

`\qu@doendquclub` If the `qu@afterquclub` switch is set to false, `\qu@doendquclub` will set `\clubpenalty` to 10000. It will restore `\everypar` and the default value of `\clubpenalty` in the next paragraph.

```

45 \newcommand*\qu@doendquclub{%
46   \ifbool{qu@afterquclub}{%
47     \clubpenalty=\@clubpenalty
48     \everypar{}%
49   }{%
50     \booltrue{qu@afterquclub}%
51     \clubpenalty=\@M
52   }%
53 }

```

`\qu@doendqu` The macro `\qu@doendqu` is an extended version of the L^AT_EX kernel macro `\@doendpe`. In the original, “[t]o suppress the paragraph indentation in text

immediately following a paragraph-making environment, `\everypar` is changed to remove the space, and `\par` is redefined to restore `\everypar`.” [1, p. 227] `\quo@doendquo` adds the following changes to `\par/\everypar` over and above `\@doendpe`:

- `\quo@doendquoclub` is executed;
- At the end, the `quo@afterquo` switch is globally set to false.

```

54 \newcommand*\quo@doendquo}{%
55   \booltrue{@endpe}%
56   \def\par{%
57     \@restorepar
58     \everypar{\quo@doendquoclub}%
59     \par
60     \boolfalse{@endpe}%
61     \global\boolfalse{quo@afterquo}%
62   }%
63   \everypar{%
64     {\setbox\z@\lastbox}%
65     \quo@doendquoclub
66     \boolfalse{@endpe}%
67     \global\boolfalse{quo@afterquo}%
68   }%
69 }

```

quoting The definition of the `quoting` environment includes an optional argument which may be used to change package settings locally.

```

70 \newenvironment{quoting}[1] []{%
71   \setkeys{quo}{#1}%

```

We start a list environment and (unless the boolean switch `listvskip` is set to true) use the value of `vskip` for vertical spacing.

```

72 \list{}{%
73   \ifbool{quo@listvskip}{%
74     }{%
75       \setlength{\topsep}{\quo@vskip}%
76       \setlength{\partopsep}{\z@}%
77     }%

```

The length `\itemindent` is responsible for the first-line indentation of `quoting`. Its value (0pt or `\parindent`) is controlled first and foremost by the state of the key `indentfirst` (false, true, or auto). In case automatic first-line indentation is enabled, `\itemindent` will be set to `\parindent` if the following conditions are met:

- We are in vertical mode (which usually means that a blank line or a `\par` command is present before the environment – but see below);
- The boolean switch `quo@afterquo` is set to false (i. e., vertical mode does not stem from a preceding `quoting` environment of the same depth);

- The L^AT_EX kernel switch `@nobreak` is either set to false (the quoting environment does not directly follow a sectioning command), or both `@nobreak` and `@afterindent` are set to true.

```

78   \ifcase\quo@indentfirsttype\relax
79     \setlength{\itemindent}{\z@}%
80   \or
81     \setlength{\itemindent}{\parindent}%
82   \or
83     \setlength{\itemindent}{%
84       \ifbool{vmode}{%
85         \ifbool{quo@afterquo}{%
86           \z@
87         }{%
88           \ifbool{@nobreak}{%
89             \ifbool{@afterindent}{%
90               \parindent
91             }{%
92               \z@
93             }%
94           }{%
95             \parindent
96           }%
97         }%
98       }{%
99         \z@
100      }%
101    }%
102  \fi

```

The lengths `\leftmargin`, `\rightmargin`, `\listparindent`, and `\parsep` are set, the latter two in accordance with the settings for the surrounding text.

```

103  \setlength{\leftmargin}{\quo@leftmargin}%
104  \setlength{\rightmargin}{\quo@rightmargin}%
105  \setlength{\listparindent}{\parindent}%
106  \setlength{\parsep}{\parskip}%
107  }%

```

We issue the necessary `\item` command, disable orphans in the environment's first paragraph when indicated, and switch to `\quotingfont`. (With regard to orphans, we make use of `\@item`'s internal mechanism to prevent orphans directly after sectioning commands [1, p. 229].) Lastly, we typeset the replacement text of the `begintext` key.

```

108  \item\relax
109  \ifbool{quo@noorphanfirst}{%
110    \global\booltrue{@nobreak}%
111  }{%
112  }%
113  \quotingfont
114  \quo@begintext\ignorespaces

```

At the end of `quoting`, we typeset the replacement text of `endtext`. (We also remove any preceding space if we are in horizontal mode; this does not apply if, e.g., the `quoting` environment closes with a list environment like `itemize` or `enumerate` plus a blank line.) After that, the following actions are taken:

- The \LaTeX kernel switch `@endpe` is set to false (so that `\@doendpe` won't be executed);
- The state of the `quo@noorphanafter` switch is forwarded outside the current group (using \TeX syntax);
- `quo@afterquo` is globally set to true;
- `\quo@doendquo` is executed after the current group.

```

115 }{%
116   \ifbool{hmode}{%
117     \unskip
118   }{%
119   }%
120   \quo@endtext
121   \endlist
122   \boolfalse{@endpe}%
123   \ifbool{quo@noorphanafter}{%
124     \aftergroup\quo@afterquoclubfalse
125   }{%
126     \aftergroup\quo@afterquoclubtrue
127   }%
128   \global\booltrue{quo@afterquo}%
129   \aftergroup\quo@doendquo
130 }

```

The end of the package.

```
131 \endinput
```

References

- [1] Braams, Johannes, David Carlisle, Alan Jeffrey, Leslie Lamport, Frank Mittelbach, Chris Rowley, and Rainer Schöpf. *The \LaTeX 2 _{ϵ} sources*. 2009/09/24. <http://www.tug.org/texlive/Contents/live/texmf-dist/doc/latex/base/source2e.pdf> (accessed August 2, 2011).
- [2] “`\DeclareStringOption`”. Series of messages on `comp.text.tex`, December 14, 2009. http://groups.google.com/group/comp.text.tex/browse_thread/thread/1fb53938ac0026c5 (accessed September 6, 2011).
- [3] Fischel, William A. *Regulatory takings: Law, economics, and politics*. Cambridge, MA: Harvard University Press, 1995.

- [4] Kopka, Helmut and Patrick W. Daly. *Guide to L^AT_EX*. 4th edition. Boston: Addison-Wesley, 2004.
- [5] Kottwitz, Stefan. *L^AT_EX beginner's guide*. Birmingham: Packt Publishing, 2011.
- [6] L^Ampport, Leslie. *L^AT_EX: A document preparation system*. 2nd edition. Boston: Addison-Wesley, 1994.
- [7] Oetiker, Tobias, Hubert Partl, Irene Hyna, and Elisabeth Schlegl. *The not so short introduction to L^AT_EX 2_ε*. Version 5.01, April 6, 2011. <http://mirror.ctan.org/info/lshort/english/lshort.pdf> (accessed August 2, 2011).

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