

The quoting package*

Thomas Titz†

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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:

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†E-mail: thomas.titz@chello.at

- 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, invoke `font+` in addition to `font`.

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+`).

leftmargin The width of the environment's left-hand indentation relative to the surrounding text. The default value is `\leftmargin`.⁵

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).

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 [2011/09/08 v0.1a Consolidated environment for displayed text]
```

⁵Note that the value of `\leftmargin` depends on the depth of the `quoting` environment, i.e. nested quotes will feature smaller indentation by default.

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+`. We convert their value to a command and use this command to define `\quotingfont` resp. to append its definition.

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

`\quo@leftmargin` We use `kvoptions` to define the keys `leftmargin` and `rightmargin` and to set their
`\quo@rightmargin` default values.

```
24 \DeclareStringOption[\leftmargin]{leftmargin}
25 \DeclareStringOption[\quo@leftmargin]{rightmargin}
```

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

```
26 \newlength{\quo@toppartop}
27 \deflength{\quo@toppartop}{\topsep + \partopsep}
28 \DeclareStringOption[\quo@toppartop]{vskip}
```

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

```
29 \DeclareBoolOption{listvskip}
30 \DeclareBoolOption{noorphanfirst}
31 \DeclareBoolOption{noorphanafter}
```

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

```
32 \define@key{quo}{noorphans}[true]{%
33   \setbool{quo@noorphanfirst}{#1}%
34   \setbool{quo@noorphanafter}{#1}%
35 }
36 \ProcessKeyvalOptions*
```

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

```
37 \newcommand*\quotingsetup[1]{\setkeys{quo}{#1}}
```

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

```
38 \newbool{quo@afterquo}
39 \newbool{quo@afterquoclub}
```

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

```
40 \newcommand*\quo@doendquoclub{%
41   \ifbool{quo@afterquoclub}{%
42     \clubpenalty=\@clubpenalty
43     \everypar{}%
44   }{%
45     \booltrue{quo@afterquoclub}%
46     \clubpenalty=\@M
47   }%
48 }
```

`\quo@doendquo` The macro `\quo@doendquo` 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.

```
49 \newcommand*\quo@doendquo{%
50   \booltrue{@endpe}%
51   \def\par{%
52     \@restorepar
53     \everypar{\quo@doendquoclub}%
54     \par
```

```

55   \boolfalse{@endpe}%
56   \global\boolfalse{quo@afterquo}%
57   }%
58 \everypar{%
59   {\setbox\z@\lastbox}%
60   \quo@doendquoclub
61   \boolfalse{@endpe}%
62   \global\boolfalse{quo@afterquo}%
63   }%
64 }

```

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

```

65 \newenvironment{quoting}[1] [] {%
66   \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.

```

67 \list{}{%
68   \ifbool{quo@listvskip}{%
69   }{%
70   \setlength{\topsep}{\quo@vskip}%
71   \setlength{\partopsep}{\z@}%
72   }%

```

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`.

```

73   \ifcase\quo@indentfirsttype\relax
74   \setlength{\itemindent}{\z@}%
75   \or
76   \setlength{\itemindent}{\parindent}%
77   \or
78   \setlength{\itemindent}{%
79     \ifbool{vmode}{%
80       \ifbool{quo@afterquo}{%
81         \z@
82       }{%

```

```

83         \ifbool{@nobreak}{%
84             \ifbool{@afterindent}{%
85                 \parindent
86             }{%
87                 \z@
88             }%
89         }{%
90             \parindent
91         }%
92     }%
93 }{%
94     \z@
95 }%
96 }%
97 \fi

```

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

```

98     \setlength{\leftmargin}{\quo@leftmargin}%
99     \setlength{\rightmargin}{\quo@rightmargin}%
100    \setlength{\listparindent}{\parindent}%
101    \setlength{\parsep}{\parskip}%
102 }%

```

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].)

```

103 \item\relax
104 \ifbool{quo@noorphanfirst}{%
105     \global\booltrue{@nobreak}%
106 }{%
107 }%
108 \quotingfont

```

At the end of `quoting`, the following actions are taken:

- The L^AT_EX 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 T_EX syntax);
- `quo@afterquo` is globally set to true;
- `\quo@doendquo` is executed after the current group.

```

109 }{%
110 \endlist
111 \boolfalse{@endpe}%
112 \ifbool{quo@noorphanafter}{%
113     \aftergroup\quo@afterquoclubfalse

```

```

114 }{%
115   \aftergroup\quo@afterquoclubtrue
116 }%
117 \global\booltrue{quo@afterquo}%
118 \aftergroup\quo@doendquo
119 }

The end of the package.
120 \endinput

```

References

- [1] Braams, Johannes, David Carlisle, Alan Jeffrey, Leslie Lamport, Frank Mittelbach, Chris Rowley, and Rainer Schöpf. *The L^AT_EX 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] Lamport, 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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Change History

v0.1		v0.1a	
General: Initial public release	1	General: New option <code>indentfirst</code>	2