The **quoting** package

Thomas Titz

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Abstract
As an alternative to the \LaTeX 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 \LaTeX 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] the 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 \LaTeX, 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 \texttt{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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*This document corresponds to *quoting* v0.1c, dated 2014/01/28.
†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 \LaTeX{}'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.\footnote{See \cite[pp. 120–121]{example} for an example of nested quotes.}

• If a \texttt{quoting} environment directly follows a sectioning command (which may or may not be considered good style), its first line won’t be indented.\footnote{That 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.}

• As the start of a new paragraph is already indicated by first-line indentation, the vertical space before and after the \texttt{quoting} environment is kept constant (contrary to list environments like itemize and enumerate).

• Because the \texttt{quoting} environment uses a custom mechanism to control orphans\footnote{If a page break occurs after the first line of a paragraph, that line is referred to as “orphan”.} within and after it, it is not affected by \LaTeX{} bug 4065 ($\texttt{\clubpenalty}$ not always being reset after list environments).

The options provided by \texttt{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.

\begin{description}
\item[indentfirst] An option that allows to override \texttt{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.\footnote{The \indentfirst option may act as a fallback solution for cases where \texttt{quoting}’s indentation mechanism fails. Currently, first lines will always be indented a) immediately after \begin{document} b) after a \texttt{sloppypar}, center, flushleft, or flushright environment. Thanks to Enrico Gregorio for pointing out \texttt{quoting}’s behaviour with respect to \texttt{sloppypar}, center & friends.}
\end{description}
The font used for typesetting the contents of a *quoting* environment. Permitted values are the names (without preceding backslash) of \LaTeX’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 \(\texttt{\leftmargin}\).\(^6\)

**rightmargin** The width of the environment’s right-hand indentation relative to the surrounding text. By default, \(\texttt{\rightmargin}\) matches \(\texttt{\leftmargin}\).

**vskip** The vertical space before and after a *quoting* environment. The default value is the sum of \(\texttt{\topsep}\) and \(\texttt{\parboxsep}\).

**listvskip** A boolean option that, if enabled, adjusts *quoting*’s vertical spacing to that of list environments (and ignores \(\texttt{vskip}\) 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`.

\(\texttt{\quotingsetup}\) 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.

\(\texttt{\quotingfont}\) 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).

\(^5\)Before *quoting* v0.1b, `font+` had to be invoked for specifying several font properties.

\(^6\)Note that the value of \(\texttt{\leftmargin}\) 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 \LaTeX\ 2ε.
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@}

\\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 \csname quo@in@#1\expandafter\endcsname
11 \else \PackageError{quoting}{Unknown value #1 for option indentfirst}%
12 \fi
13 }
14 \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 \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 \do##1{\appto{\quotingfont}{\csname ##1\endcsname}}%
21 \docsvlist{#1}}%
22 }
23 \define@key{quo}{font+}{%
24 \do##1{\appto{\quotingfont}{\csname ##1\endcsname}}%
25 \docsvlist{#1}}%
26 }

\begintext
\\\endtext
\\leftmargin
\\rightmargin
We use kvoptions to define the keys begintext, endtext, leftmargin, and rightmargin
and to set default values for the latter two.
27 \DeclareStringOption{begintext}
\DeclareStringOption{endtext}
\DeclareStringOption{\leftmargin}{leftmargin}
\DeclareStringOption{\quot@leftmargin}{rightmargin}
\DeclareStringOption{\quo@toppartop}{vskip}

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

\newlength{\quo@toppartop}
\deflength{\quo@toppartop}{\topsep + \partopsep}
\DeclareStringOption{\quo@toppartop}{\vskip}

We define the boolean options listvskip, noorphanfirst, and noorphanafter.
\DeclareBoolOption{listvskip}
\DeclareBoolOption{noorphanfirst}
\DeclareBoolOption{noorphanafter}

The shortcut boolean option noorphans will pass its value to quo@noorphanfirst and quo@noorphanafter. We then process our options.
\define@key{quo}{noorphans}[true]{%
\setbool{quo@noorphanfirst}{#1}%
\setbool{quo@noorphanafter}{#1}%
}%
\ProcessKeyvalOptions*
\quotingsetup

We define \quotingsetup as an alias of \setkeys{quo}.
\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.)
\newbool{quo@afterquo}
\newbool{quo@afterquoclub}

\quo@doendquoclub

If the quo@afterquoclub switch is set to false, \quo@doendquoclub will set \clubpenalty to 10 000. It will restore \everypar and the default value of \clubpenalty in the next paragraph.
\newcommand*{\quo@doendquoclub}{%
\ifbool{quo@afterquoclub}{%
\clubpenalty=\@clubpenalty
\everypar{}%
}%
\booltrue{quo@afterquoclub}%
\clubpenalty=\@M
\everypar{}%
}%

\quo@doendquo

The macro \quo@doendquo is an extended version of the LATEX 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.

\newcommand*{\quo@doendquo}{% 
  \booltrue{@endpe}\% 
  \def\par{% 
    \@restorepar 
    \everypar{\quo@doendquoclub}\% 
    \par 
    \boolfalse{@endpe}\% 
    \global\boolfalse{quo@afterquo}\% 
  }\% 
  \everypar{% 
    \setbox\z@\lastbox\% 
    \quo@doendquoclub \% 
    \boolfalse{@endpe}\% 
    \global\boolfalse{quo@afterquo}\% 
  }\%
}%

\newenvironment{quoting}{\setkeys{quo}{#1}\%}{% 
  \list{}\% 
  \ifbool{quo@listvskip}{% 
    \setlength{\topsep}{\quo@vskip}\% 
    \setlength{\partopsep}{\z@}\% 
  }\%
}%

The definition of the quoting environment includes an optional argument which
may be used to change package settings locally.
\newenvironment{quoting}{\setkeys{quo}{#1}\%}{% 
  \list{}\% 
  \ifbool{quo@listvskip}{% 
    \setlength{\topsep}{\quo@vskip}\% 
    \setlength{\partopsep}{\z@}\% 
  }\%
}%

We start a list environment and (unless the boolean switch listvskip is set to true)
use the value of vskip for vertical spacing.
\newenvironment{quoting}{\setkeys{quo}{#1}\%}{% 
  \list{}\% 
  \ifbool{quo@listvskip}{% 
    \setlength{\topsep}{\quo@vskip}\% 
    \setlength{\partopsep}{\z@}\% 
  }\%
}%

The length \itemindent is responsible for the first-line indentation of quoting. Its
value (0 pt 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 \LaTeX kernel switch \texttt{nobreak} is either set to false (the \texttt{quoting} environment does not directly follow a sectioning command), or both \texttt{nobreak} and \texttt{afterindent} are set to true.

\begin{verbatim}
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
103 \setlength\{\leftmargin\}\quo@leftmargin\%
104 \setlength\{\rightmargin\}\quo@rightmargin\%
105 \setlength\{\listparindent\}\parindent\%
106 \setlength\{\parsep\}\parskip\%
107 }
108 \item\relax
109 \ifbool{\quo@noorphanfirst}{%
110 \global\booltrue{\@nobreak}
111 }{%
112 }%
113 \quotingfont
114 \quo@begintext\ignorespaces
\end{verbatim}

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

We issue the necessary \texttt{item} command, disable orphans in the environment’s first paragraph when indicated, and switch to \texttt{quotingfont}. (With regard to orphans, we make use of \texttt{\item}'s internal mechanism to prevent orphans directly after sectioning commands [1, p. 229].) Lastly, we typeset the replacement text of the \texttt{begintext} key.
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 \texttt{@endpe} is set to false (so that \texttt{@doendpe} won’t be executed);
- The state of the \texttt{quo@noorphanafter} switch is forwarded outside the current group (using \TeX syntax);
- \texttt{quo@afterquo} is globally set to true;
- \texttt{\quo@doendquo} is executed after the current group.

\begin{verbatim}
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 }
\end{verbatim}

The end of the package.

\endinput

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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.

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