

The phfquotetext package¹

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¹This document corresponds to *phfquotetext v1.0*, dated 2016/08/15. It is part of the *phfqitlx* package suite, see <https://github.com/phfaist/phfqitlx>.

phfquotetext—Provides an environment for displaying block text with special characters, such as verbatim quotes from a referee report.

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■ 1 Introduction

This package provides a quoting environment useful to quote, e.g., email text. It is somewhat like a verbatim environment (for instance, there is no macro expansion), but with also no white space formatting.

For instance, you might find this useful for formatting replies to a referee, because any pseudo- \LaTeX commands are reproduced verbatim, but the bulk is still nicely formatted:

```
\begin{quotetext}
  This is some text which was provided in plain text, for example,
  by the referee. The object \calE should probably be defined with
  a factor 1/2 to help the \sum_k \ket{k} states not overwhelm rho
  by this and that by more than 50%...
\end{quotetext}
```

The above code gives the following output:¹

This is some text which was provided in plain text, for example, by a referee. The object `\calE` should probably be defined with a factor $1/2$ to help the `\sum_k \ket{k}` states not overwhelm ρ by this and that by more than 50%....

■ 2 Usage

2.1 The main environment

The main environment is simply `\begin{quotetext} ... \end{quotetext}`.

`quotetext` Delimit your email quote within this environment:

```
\begin{quotetext}
  Stuff which you want to display verbatim, but with automatic white
  space formatting and text re-flow. \commands will not be
  expanded, and will be displayed verbatim. Percent signs also work
  100%.
\end{quotetext}
```

The `{quotetext}` environment does not start a paragraph on its own, nor does it end it. You can thus in principle use this environment to quote text inline within a paragraph if you want to, unless you're enforcing new paragraphs in `\quotetextstart` and `\quotetextend`.

2.2 Customize appearance

`\quotetextfont` This macro contains the formatting commands to set up the quote font. By default, the contents is displayed in typewriter font. You may redefine this command to achieve your favorite style:

```
\renewcommand\quotetextfont{\sffamily\color{blue}}
```

This macro may also be defined to accept one argument, which is the whole contents of the quoted text. Make sure you define this with `\renewcommand` or `\long\def`, because the argument may contain several paragraphs.

`\quotetextstart` This command gets called at the beginning of the quote environment. It may

¹ Here, we've assumed the `\quotetextfont` was redefined as `\sffamily\color{blue}`. Because it does look nicer. See subsection 2.2.

be used e.g. to add space, a horizontal rule, or add other formatting goodies. By default, it is empty.

`\quotetextend` This command gets called at the end of the quote environment. It may be used e.g. to add space, a horizontal rule, or add other formatting goodies. By default, it is empty.

The macros `\quotetextfont`, as well as `\quotetextstart` and `\quotetextend` are called within a \TeX group, so you don't need to worry that font overrides leak outside of the `quotetext` environment.

You may try, for instance, the following to get started with customization:

```
\renewcommand\quotetextstart{%
  \par\noindent{\color{blue}\hrule height 0.8pt}\vspace{2pt}\vspace{-\parskip}}
\renewcommand\quotetextend{%
  {\color{blue}\vspace{2pt}\hrule height 0.8pt\vspace{2pt}}}
% \sout{} requires \usepackage[normalem]{ulem}:
\renewcommand\quotetextfont[1]{\color{orange}\itshape\sout{\ignorespaces #1}}
```

which gives:

~~Stuff which you want to display verbatim, but with automatic white space formatting and text re-flow. Commands will not be expanded, and will be displayed verbatim. Percent signs also work 100%.~~

2.3 Customize Catcodes—Advanced Usage

`\quotetextcatcodedefs` You may redefine this command to set catcodes before parsing the bulk of the `{quotetext}` environment. This macro is called after \TeX 's specials are already assigned catcode 12 (other). By default, this macro is empty.

■ 3 Known Caveats

- The leading space in the environment content is not trimmed from the argument passed on to `\quotetextfont`. This just means that if `\quotetextfont` is defined to accept an argument, it must not forget to precede it with `\ignorespaces` as appropriate (as in the example above in subsection 2.2). I'm not sure how to remove trailing whitespace.
- By default, the `{quotetext}` environment does not start a new paragraph nor end the paragraph, unless you enforce this explicitly in `\quotetextstart` and `\quotetextend`. This is purposely left as a feature to be aware of.

■ 4 Implementation

4.1 Main Macros and Environment

`\quotetextcatcodedefs` Allows to set custom catcodes for parsing of quotetext contents.

By default, all char catcodes are set as "other" characters, but you may redefine this macro to define you own catcodes.

This macro is empty by default.

```
1 \newcommand\quotetextcatcodedefs{}
```

`\quotetextstart` Definitions which are called at the beginning or end of every quote environment.
`\quotetextend` They are empty by default.

```
2 \newcommand\quotetextstart{}
```

```
3 \newcommand\quotetextend{}
```

`\quotetextfont` Set up the font and display for the quote text environment.

This command may also be defined to take one single argument, which will be the whole contents of the quotetext environment.

```
4 \newcommand\quotetextfont{\ttfamily}
```

`quotetext` The main environment. Starts group and relays the call to `\phfquotetext@warg` to start reading the contents of the environment.

Start the environment definition.

```
5 \newenvironment{quotetext}{%
```

Do anything we should do before the quotetext environment.

```
6 \quotetextstart%
```

Make sure to enclose the full quote text stuff into its own group to make definitions such as catcode overrides local.

```
7 \begingroup%
```

Finally, relay the call to `\phfquotetext@warg` to read the whole contents of the environment, and finish the environment definition.

```
8 \phfquotetext@warg%
```

```
9 }
```

Finally, in the closing part of the environment, do anything which needs to be done at the end.

```
10 {%
11 \quotetextend%
12 }
```

4.2 Internal Stuff

`\phfquotetext@warg@` Reads an argument delimited by `...\end{quotetext}`, ends the current \TeX group assumed open (in order to change the catcodes), and calls the `start/show/end` commands.

We need deep catcode dark magic to just even define this command.

```
13 \begingroup
14 \catcode'|=0
15 \catcode'\<=1
16 \catcode'\>=2
17 \catcode'\{=12
18 \catcode'\}=12
19 \catcode'\|=12
20 \long\gdef\phfquotetext@warg@#1\end{quotetext}<|endgroup
21 |phfquotetext@show<#1>>
22 |endgroup
```

`\phfquotetext@show` Shows the content given as argument with the proper formatting. Includes an actual call to `\end{quotetext}` to make \TeX 's bookcounting mechanism for `\begin/\end` happy, and which finally also calls `\quotetextend`.

```
23 \newtoks\qtt@mytoks
24 \long\def\phfquotetext@show#1{%
25 \qtt@mytoks=#1}%
26 \begingroup%
```

Crucially, `\the\toks` only expands once and prohibits further expansion. This way, we may pass the argument directly to `\quotetextfont`, with tokens expanded exactly as they were given:

```
27 \expandafter\quotetextfont\expandafter{\the\qtt@mytoks}%
28 \endgroup%
29 \end{quotetext}%
30 }
```

`\phfquotetext@warg` Prepares to read the contents of the environment. A new \TeX group has already been opened by `\begin{quotetext}`.

```
31 \def\phfquotetext@warg{%
32 %
```

Set the catcode of all special chars to “other” (12). We use `\dospecials` provided by \TeX itself.² We leave the space token to the “space” catcode, so that white space is properly managed by LaTeX. Finally, include any user catcode overrides in `\quotetextcatcodedefs`.

```
33 \let\do\@makeother%
34 \dospecials%
35 \catcode'\ =10\relax% keep space
36 \quotetextcatcodedefs%
```

Finally, relay the call to `\phfquotetext@warg@` to read the contents of the group and close the \TeX group.

```
37 \phfquotetext@warg@%
38 }
```

Change History

v1.0	
General: Initial version	1

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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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²see <http://tex.stackexchange.com/a/12890/32188>

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