

# The `ssquote` Package for L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub>

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January 16, 2004

## 1 Introduction

This contributed package for L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> provides the necessary font declarations needed to access the `cmssq` font family, i.e. Computer Modern Sans Serif Quotation Style, in terms of NFSS.<sup>1</sup> It also provides a little example package file that shows how to define some appropriate font changing commands.

`\ssqfamily`  
`\textssq` Once you have installed the font definition files `OT1cmssq.fd` and `T1cmssq.fd` provided here, you can use low-level NFSS commands to access the `cmssq` font family in your documents, even if you do not plan to use the example package `ssquote.sty`. Apart from defining the font changing commands `\ssqfamily` and `\textssq`, that package file also provides an example application that uses the `cmssq` font family.

`chapterquotes` The `chapterquotes` environment provided as an example is based on ideas used in the `\endchapter` macro of the `manmac` format that was used by DEK in the T<sub>E</sub>X and METAFONT manuals. Its purpose is to typeset a few nice quotations at the end of chapters using the `cmssq` font family in a smaller typesize than the regular text. While keeping the distinctive ragged-left formatting from the `\endchapter` macro, we have tried to make the `chapterquotes` environment more flexible, optionally allowing quotations to be placed at the top of the next page if there isn't enough room left at the bottom of the current page.

## 2 The Docstrip modules

The following DOCSTRIP modules are used in this package:

<code>driver</code>	produces the documentation driver
<code>package</code>	produces the example package file
<code>OT1cmssq</code>	produces the font definition file for the OT1 encoding
<code>T1cmssq</code>	produces the font definition file for the T1 encoding

Except for the documentation driver every module intended for T<sub>E</sub>X should contain the following information for identification purposes.

```
1 <*\package | OT1cmssq | T1cmssq>
2 \def\filename{ssquote.dtx}
3 \def\filedate{1994/05/21}
4 \def\fileversion{1.2}
5 </\package | OT1cmssq | T1cmssq>
```

---

<sup>1</sup>Throughout this document, the term NFSS should be understood to refer to release 2 of NFSS, i.e. the release that's part of L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> and that's intended to become part of L<sup>A</sup>T<sub>E</sub>X 3 in the future.

### 3 The font definition files:

#### OT1cmssq.fd and T1cmssq.fd

Following the tradition of the standard L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> distribution, we begin by identifying the latest version of these files in the log file.

```
6 (*OT1cmssq | T1cmssq)
7 \wlog{Fontdef\space file\space produced\space from\string:\space
8 \string'ssquote.dtx\string'\space \fileversion\space
9 \string<\filedate\string>\space \string(Ulrik Vieth\string)}
10 \</OT1cmssq | T1cmssq>
```

#### 3.1 The font definition file for the OT1 encoding

First, we will consider the font definition file for the old encoding scheme OT1 of the original Computer Modern Fonts by DEK. We start by declaring the font family `cmssq`.

```
11 (*OT1cmssq)
12 \DeclareFontFamily{OT1}{cmssq}{}
```

The fonts `cmssq` and `cmssqi` are only available in 8-point design size. Therefore, we will make them available only in rather unusual sizes based on magsteps of 8pt. However, in the typical application of typesetting quotations in this font family, you wouldn't want to use large magsteps anyway, thus you needn't really worry about that. If you simply select `\footnotesize`, an appropriate size for quotations will be substituted automatically within the margin of `\fontsubfuzz` allowed by NFSS.

Since the 'i' in `cmssqi` stands for 'inclined' rather than 'italics', we allocate it to `\slshape` and add a silent font substitution for `\itshape`. There are no other font shapes currently available in the `cmssq` family, and it is very unlikely that there will be any in the future.

```
13 \DeclareFontShape{OT1}{cmssq}{m}{n}{
14 <8> <8.76> <9.6> <11.52> <13.82> <16.59> <19.91> cmssq8
15 }{}
16 \DeclareFontShape{OT1}{cmssq}{m}{sl}{
17 <8> <8.76> <9.6> <11.52> <13.82> <16.59> <19.91> cmssqi8
18 }{}
19 \DeclareFontShape{OT1}{cmssq}{m}{it}{
20 <-> ssub * cmssq/m/sl
21 }{}
22 \</OT1cmssq>
```

#### 3.2 The font definition file for the T1 encoding

Next, here are the corresponding font shape declarations for the new encoding scheme T1 used in the DC fonts. For some unknown reason, Sans Serif Quotation Style was not supported in the original version 1.0 of the DC fonts. Support for this style was added only in version 1.1, which was completed in March 1992 but not released on CTAN before February 1994. However, the fonts `dcssq` and `dcssqi` are still commented out in the configuration file `dcstdedt.tex`, thus you will not have them if you simply installed the DC fonts using the standard setup,

but you can create them if you like. In any case we will provide the font definition file here.

```

23 (*T1cmssq)
24 \DeclareFontFamily{T1}{cmssq}{}

    In the T1 encoding, we will use the same magsteps as in the OT1 encoding.
    Using the scaling mechanism built into the DC fonts, it would be possible to create
    different design sizes as well, but providing a different choice of sizes in the OT1
    and T1 encodings would only cause confusion. Therefore, we prefer to live with
    an unusual range of sizes in both cases.

25 \DeclareFontShape{T1}{cmssq}{m}{n}{
26   <8> <8.76> <9.6> <11.52> <13.82> <16.59> <19.91> dcssq8
27 }{}
28 \DeclareFontShape{T1}{cmssq}{m}{sl}{
29   <8> <8.76> <9.6> <11.52> <13.82> <16.59> <19.91> dcssqi8
30 }{}
31 \DeclareFontShape{T1}{cmssq}{m}{it}{
32   <-> ssub * cmssq/m/sl
33 }{}
34 </T1cmssq>

```

## 4 The package file: `ssquote.sty`

After having discussed the font definition files, we now turn to the example package that shows how to access the `cmssq` font family using low-level NFSS commands.

As usual, we begin by identifying the package and its current version.

```

35 (*package)
36 \ProvidesPackage{ssquote}[\filedate\space\fileversion\space
37   Contributed LaTeX2e package]
38 \typeout{Package: 'ssquote'
39   \fileversion\space <\filedate> (Ulrik Vieth)}

```

### 4.1 Accessing the `cmssq` font family in NFSS

`\ssqfamily` First, we define the declarative font changing command `\ssqfamily`. This is accomplished using the low-level NFSS commands `\fontencoding` and `\fontfamily` followed by `\selectfont`. We assume that `\encodingdefault` is set to either OT1 or T1. Otherwise, you'll probably get an NFSS error message.

```

40 \def\ssqfamily{%
41   \fontencoding{\encodingdefault}\fontfamily{cmssq}\selectfont}

```

`\textssq` Next, we define a font changing command with one argument. Since it is very unlikely that the `cmssq` font will be used in math mode, we do not attempt to make a robust version, instead the `\textssq` macro defined here simply selects `\ssqfamily` within a group. However, we will protect it, so that it can be used within moving arguments without problems.

```

42 \def\textssq{\protect\ptextssq}
43 \def\ptextssq#1{\ssqfamily #1}

```

## 4.2 An example application: The `chapterquotes` environment

As an example application, we will define a `chapterquotes` environment that is based on ideas used in the `\endchapter` macro of the `manmac` format that was used in the `TEX` and `METAFONT` manuals. We have tried to make it more `LATEX`-like and we have added some switches and parameters to customize its behaviour. The purpose of this environment is to typeset a few nice quotations at the end of chapters using the `cmsq` font family.

`\ifbottomquotes` We begin by defining a `\newif` that controls whether quotations should always be placed at the bottom or if they are allowed to appear at the top of the next page in case there isn't enough room at the bottom of the current page. By default, `\ifbottomquotes` is set to false.

```
44 \newif\ifbottomquotes \bottomquotesfalse
```

`\prechapterquotes` Next, we allocate a `\newskip` that controls the minimum amount of space that should be left over on the current page when the `chapterquotes` environment is called. More precisely, `\prechapterquotes` is the amount of stretchable glue inserted in an attempt to eject the current page before starting to typeset the quotations. The default value of `\prechapterquotes` is `10\baselineskip` in `\footnotesize`. If you have longer quotations, you may wish to enlarge this parameter.<sup>2</sup>

```
45 \newskip\prechapterquotes
```

```
46 {\footnotesize \global\prechapterquotes=10\baselineskip\relax}
```

`chapterquotes` Now, we are ready to discuss the `chapterquotes` environment itself. We begin by leaving horizontal mode if we are not already in vertical mode at the time when `chapterquotes` is called.

```
47 \newenvironment{chapterquotes}{%
```

```
48 \ifvmode \else \unskip\par \fi
```

Next, we try to eject the current page by inserting an amount of stretchable glue controlled by `\prechapterquotes`, followed by the negative penalty `\@secpenalty`, followed by negative stretchable glue to compensate the positive stretchable glue in case the negative penalty fails to eject the page. If a page break occurs, the last glue will disappear at the top of the page.

```
49 \vskip\z@\@plus+\prechapterquotes
```

```
50 \penalty\@secpenalty
```

```
51 \vskip\z@\@plus-\prechapterquotes
```

After these preliminaries we come to the central part of the `chapterquotes` environment. If quotations are allowed only at the bottom of the page, we insert an empty `hbox` to prevent glue from disappearing at the top, followed by `\vfill`.

We disallow floats at the bottom by setting `\@botnum` to zero. In case quotations are allowed at the top as well, we also set `\@topnum` to zero because we do not know where the quotations will end up. If this causes problems with floats that are left over at the end of the chapter, inserting a `\clearpage` before the `chapterquotes` environment might help.

---

<sup>2</sup>By the way, the name of the `\prechapterquotes` parameter was inspired by the `\premulticols` parameter in Frank Mittelbach's `multicol` package.

```

52 \ifbottomquotes \null \fi \vfill
53 \global\@botnum\z@
54 \ifbottomquotes \else \global\@topnum\z@ \fi

```

Now, we start a group to keep changes local. We switch to `\footnotesize` and select the `cmssq` font family using the declarative font changing command `\ssqfamily`.

```

55 \begingroup
56 \footnotesize \ssqfamily

```

We redefine `\bigskipamount`, `\medskipamount` and `\smallskipamount` using multiples of `\baselineskip` in `\footnotesize`. We will use these parameters for the spacing in between multiple quotations.

```

57 \bigskipamount=1.0\baselineskip
58 \medskipamount=0.5\baselineskip
59 \smallskipamount=0.25\baselineskip

```

Within the group started above, we set `\interlinepenalty` to 10000 to disallow page breaks between quotations. Next, we set up various parameters for ragged-left typesetting.

```

60 \interlinepenalty\@M
61 \parindent\z@ \parskip\z@ \parfillskip\z@
62 \leftskip\z@\@plus\linewidth \rightskip\z@

```

We redefine `\par` in order to insert the italics correction automatically at the end of lines and activate `\obeylines`, which means that `\par` is added automatically at the end of every input line. In  $\text{\LaTeX}$ , we can use `\@@par` to refer to the original meaning of `\par`. Alternatively, we could use `\endgraf` here instead.

```

63 \def\par{\ifhmode\@@par\fi} \obeylines

```

`\nextquote` Individual quotations should start with `\nextquote`. This will insert a `\bigskip` and switch to `\slshape` using the `cmssq` family selected earlier at the beginning of the environment. Users might regard `\nextquote` as a special case of `\item` that is only available within the `chapterquotes` environment. However, technically speaking, `\item` is quite different from `\nextquote` and much more complicated.

```

64 \def\nextquote{\bigskip\slshape}

```

`\author` The source of a quotation can be formatted using the macros `\author` and `\title`.  
`\title` The `\author` macro expects two arguments which will be typeset in upright shape. The first one is meant to be the name of the author or the work that is quoted, while the second one (enclosed in parentheses) is meant to be the date of the quotation. Within the arguments of the `\author` macro, the `\title` macro can be used to typeset the title of the quoted work in slanted shape. We use `\textsl` here, i.e. the font switching macro with one argument, because this will automatically insert the italics correction if necessary.

```

65 \def\author##1(##2){\medskip\upshape\noindent
66 --- \ignorespaces ##1 \unskip\thinspace (##2)\par}
67 \def\title##1{\textsl{##1}}

```

At the end of the `chapterquotes` environment, there is not much left to do. We simply close the group started at the beginning of the environment to restore the paragraphing parameters. In case quotations are placed at the top of the page, we insert `\vfil` to avoid an underfull page. If quotations are placed at the

bottom, the `\vfill` at the top is infinitely larger than the `\vfil` at the bottom, thus the last `\vfil` won't have any effect. The very last thing to do is to call a `\pagebreak`.

```
68 }{%
69 \endgroup
70 \vfil \pagebreak}
71 \endpackage}
```

## 5 The documentation driver file

We have our own document class to format the  $\text{\LaTeX} 2_{\epsilon}$  documentation. We also use the `mflgo` package that defines the METAFONT logo in terms of a NFSS font family and the `ssquote` package to typeset some example quotations at the end of this file.

```
72 \driver
73 \documentclass{ltxdoc}
74 \usepackage{mflgo}
75 \usepackage{ssquote}
76 \DisableCrossrefs
77 \begin{document}
78 \DocInput{ssquote.dtx}
79 % \PrintIndex
80 % \PrintChanges
81 \end{document}
82 \enddriver
```

## 6 An example of the chapterquotes environment

Finally, here's an example of the `chapterquotes` environment and how it was specified. Note that line breaks in the input file are obeyed, thus when long input lines have to be broken across lines, the end of the line has to be commented out. If a quotation consists of multiple paragraphs, `\smallskip` can be used to insert space in between them. As explained earlier, `\medskip` is inserted by the `\author` macro and `\bigskip` is inserted by `\nextquote`.

```
83 \example
84 \begin{chapterquotes}
85   \nextquote
86   I've finally learned what 'backwards compatibility' means:
87   It means we've got to keep all our old mistakes.
88
89   \author RAINER SCH"OPF, \title{\LaTeX{} Announcement} (TUG '1993)
90
91   \nextquote
92   \emph{Compatibility:} \LaTeX{} will, as far as possible,
93   adhere to the following principles:
94   \smallskip
95   1. Unmodified version 2.09 document files will produce
```

```

96     the same output with \LaTeXe{} as with version 2.09.
97 \smallskip
98 2. All new features will conform to the conventions
99   of version 2.09 \dots
100
101 \author \LaTeX3 PROJECT, %
102   \title{\LaTeXe{} -- A new version of \LaTeX{}} (TTN~2;4, 1993)
103 \end{chapterquotes}
104 \example

```

*I've finally learned what 'backwards compatibility' means:  
It means we've got to keep all our old mistakes.*

— RAINER SCHÖPF, *L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> Announcement* (TUG '1993)

*Compatibility: L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> will, as far as possible,  
adhere to the following principles:*

- 1. Unmodified version 2.09 document files will produce  
the same output with L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> as with version 2.09.*
- 2. All new features will conform to the conventions  
of version 2.09 ...*

— L<sup>A</sup>T<sub>E</sub>X3 PROJECT, *L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> – A new version of L<sup>A</sup>T<sub>E</sub>X* (TTN 2;4, 1993)

*I didn't change anything! An aggrieved cry often heard  
as bugs manifest during a regression test ...*

*This is also heard from applications programmers  
trying to blame an obvious applications problem  
on an unrelated systems software change ...*

*Usually, their statement is found to be false.*

*Upon close questioning, they will admit  
some major restructuring of the program  
that shouldn't have broken anything, in their opinion,  
but which hosed the code completely.*

— THE NEW HACKER'S DICTIONARY (1993)