

The `thinsp` package

Palle Jørgensen

10th February 2016

Summary

The `thinsp` package provides a stretchable `\thinspace` to replace L^AT_EX's normal `\thinspace`.

Contents

| | | |
|----------|---|----------|
| 1 | Introduction | 1 |
| 2 | Usage | 2 |
| 3 | <code>thinsp</code> and other packages | 3 |
| 4 | Bug reports and comments | 3 |
| 5 | Copyright and license | 4 |
| A | Source code of <code>thinsp.sty</code> | 5 |

1 Introduction

The normal `\thinspace` command which L^AT_EX provides as standard is a fixed space of 0.16667em, with no stretching. This gives an awkward spacing when using `\thinspace` in underfull `\hbox`'s.

Say, I wanted to create a certain box with the name P. A. M. Dirac in it. To provide a proper spacing between the initials I use a `\thinspace` between the letters. Here shown with some `\framebox`'es.

```
\noindent\framebox{P.\,A.\,M. Dirac}\  
\framebox[\linewidth][s]{P.\,A.\,M. Dirac created  
relativistic quantum mechanics}
```

Then I would get something looking like this when using the original `\thinspace` from L^AT_EX:

| |
|----------------|
| P. A. M. Dirac |
|----------------|

| | | | | | |
|----------|-------|---------|--------------|---------|-----------|
| P. A. M. | Dirac | created | relativistic | quantum | mechanics |
|----------|-------|---------|--------------|---------|-----------|

In this example with the original spacing if `\thinspace` the spacing between the initials is the same, whether or not the `\hbox` is underfull and need some stretching or not. This makes the initials to appear “unnaturally” close when comparing them to the other characters.

With a `\thinspace` that is stretchable like the normal space, the resulting box is appearing more natural.

| |
|----------------|
| P. A. M. Dirac |
|----------------|

| | | | | | |
|----------|-------|---------|--------------|---------|-----------|
| P. A. M. | Dirac | created | relativistic | quantum | mechanics |
|----------|-------|---------|--------------|---------|-----------|

2 Usage

The simplest usage of the package is simply adding

```
\usepackage{thinsp}
```

to your preamble.

The `\thinspace` command as well as the `\,` shortcut is replaced by the stretchable `\thinspace`

The package furthermore provides a command `\thinthinspace` with half the width of `\thinspace`.

2.1 Options

| Option | Description |
|------------------------------|--|
| <code>nothinspace</code> | Disables the replacement of <code>\thinspace</code> . The stretchable <code>thinspace</code> is still available as <code>\stretchthinspace</code> . |
| <code>thinspace</code> | Dummy option as counterpart to <code>nothinspace</code> |
| <code>nothinthinspace</code> | Disables the possible ¹ replacement of <code>\thinthinspace</code> . The stretchable <code>thinthinspace</code> is still available as <code>\stretchthinthinspace</code> . |
| <code>thinthinspace</code> | Dummy option as counterpart to <code>nothinthinspace</code> |
| <code>negthinspace</code> | Provides a stretchable <code>\negthinspace</code> . This is not default, as <code>\negthinspace</code> may be used with caution anyway, and almost always should be replaced by a manually <code>\kern</code> . A stretchable <code>\negthinspace</code> is available as <code>\stretchnegthinspace</code> |
| <code>nonegthinspace</code> | Dummy option as counterpart to <code>negthinspace</code> |
| <code>onehalf</code> | Ajusting the stretchable <code>\thinspace</code> to half of the ordinary space. This is default, as it appears just like the original <code>\thinspace</code> in boxes that are not stretched. |
| <code>onethird</code> | Ajusting the stretchable <code>\thinspace</code> to one third of the ordinary space. |
| <code>twothirds</code> | Ajusting the stretchable <code>\thinspace</code> to two thirds of the ordinary space. This is the author's favourite. . . |

3 `thinsp` and other packages

As the package `amsmath` redefines `\thinspace` as well, there is a minor clash between these two packages. Hence `thinsp` redefines `\thinspace` at the beginning of the document, and if `amsmath` is loaded, the `\thinspace` is redefined in an “`amsmath` way”.

4 Bug reports and comments

Any comment on this package can be sent to the author on his e-mail address: hamselv@pallej.dk.

¹Some packages provide a `\thinthinspace` command

5 Copyright and license

The `thinsp` package and this documentation is copyright © 2007, 2016 by Palle Jørgensen.

The license of the `thinsp` package and this documentation is GNU General Public License (GPL).

You should have received a copy of the GNU General Public License along with this program. If not, see <http://www.gnu.org/licenses/>.

A Source code of thinsp.sty

```
% Copyright (C) 2007, 2016 Palle Jorgensen

% This program is free software: you can redistribute
% it and/or modify
% it under the terms of the GNU General Public License
% as published by
% the Free Software Foundation, either version 3 of the
% License, or
% (at your option) any later version.

% This program is distributed in the hope that it will
% be useful,
% but WITHOUT ANY WARRANTY; without even the implied
% warranty of
% MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
% See the
% GNU General Public License for more details.

% You should have received a copy of the GNU General
% Public License
% along with this program. If not, see
% <http://www.gnu.org/licenses/>.

\ProvidesPackage{thinsp}[2016/10/02 v 0.2 Package
  providing stretchable thinspaces]

\newif\if@thinsp@thinspace
\@thinsp@thinspace>true
\DeclareOption{nothinspace}{\@thinsp@thinspace=false}
\DeclareOption{thinspace}{\@thinsp@thinspace=true}

\newif\if@thinsp@thinthinspace
\@thinsp@thinthinspace>true
\DeclareOption{nothinthinspace}{\@thinsp@thinthinspace=false}
\DeclareOption{thinthinspace}{\@thinsp@thinthinspace=true}

\newif\if@thinsp@negthinspace
\@thinsp@negthinspace=false
```

```

\DeclareOption{nonegthinspace}{\
  @thinsp@negthinspacefalse}
\DeclareOption{negthinspace}{\ @thinsp@negthinspacetrue}

\def\thinsp@thinamount{.5}
\def\thinsp@thinthinamount{.25}

\DeclareOption{onethird}{%
  \def\thinsp@thinamount{.333}%
  \def\thinsp@thinthinamount{.167}%
}

\DeclareOption{onehalf}{%
  \def\thinsp@thinamount{.5}%
  \def\thinsp@thinthinamount{.25}%
}

\DeclareOption{twothirds}{%
  \def\thinsp@thinamount{.667}%
  \def\thinsp@thinthinamount{.333}%
}

\ProcessOptions*

\def\stretchthinspace{%
  \nobreak\hskip\thinsp@thinamount\fontdimen2\font%
  \@plus\thinsp@thinamount\fontdimen3\font%
  \@minus\thinsp@thinamount\fontdimen4\font%
  \relax%
}

\def\stretchnegthinspace{%
  \nobreak\hskip-\thinsp@thinamount\fontdimen2\font%
  \@plus\thinsp@thinamount\fontdimen4\font%
  \@minus\thinsp@thinamount\fontdimen3\font%
  \relax%
}

\def\stretchthinthinspace{%
  \nobreak\hskip\thinsp@thinthinamount\fontdimen2\font%
  \@plus\thinsp@thinthinamount\fontdimen3\font%
  \@minus\thinsp@thinthinamount\fontdimen4\font%
  \relax%
}

```

```

\AtBeginDocument{%
  \if@thinsp@thinspace
  \PackageInfo{thinsp}{Redefining \string\thinspace}
  \let\thinspace\stretchthinspace
  \@ifpackageloaded{amsmath}{%
    \PackageInfo{thinsp}{And now redefining AMS-math's
      \string\thinspace}
    \def\,{\ifmmode\mskip\thinmuskip\else\
      stretchthinspace\fi}%
    \let\thinspace\,%
  }
  \fi
  %
  \if@thinsp@negthinspace
  \PackageInfo{thinsp}{Redefining \string\negthinspace}
  \let\negthinspace\stretchnegthinspace
  \@ifpackageloaded{amsmath}{%
    \PackageInfo{thinsp}{And now redefining AMS-math's
      \string\negthinspace}
    \def\!{\ifmmode\mskip-\thinmuskip\else\
      stretchnegthinspace\fi}%
    \let\negthinspace\!%
  }
  \fi
  %
  \if@thinsp@thinthinspace
  \@ifundefined{thinthinspace}{}{%
    \PackageInfo{thinsp}{Redefining \string\
      thinthinspace}}
  \let\thinthinspace\stretchthinthinspace
  \fi
}

\endinput

```