The \texttt{thinspace} package

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Summary

The \texttt{thinspace} package provides a stretchable \texttt{\thinspace} to replace L\TeX{}'s normal \texttt{\thinspace}.

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1 Introduction

The normal \texttt{\thinspace} command which L\TeX{} provides as standard is a fixed space of 0.16667em, with no stretching. This gives an awkward spacing when using \texttt{\thinspace} in underfull \texttt{\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 \texttt{\thinspace} between the letters. Here shown with some \texttt{\framebox}'es.

\begin{verbatim}
\noindent \framebox{P.:A.M. Dirac}
\framebox[\linewidth][s]{P.:A.M. Dirac created relativistic quantum mechanics}
\end{verbatim}

Then I would get something looking like this when using the original \texttt{\thinspace} from L\TeX{}:
P. A. M. Dirac

P. A. M. Dirac created relativistic quantum mechanics

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

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

2 Usage

The simplest usage of the package is simply adding

\texttt{\usepackage{thinspace}}

to your preamble.

The the \texttt{\thinspace} command as well as the \texttt{\,}, shortcut is replaced by the stretchable \texttt{\thinspace}

The package furthermore provides a command \texttt{\thinthinspace} with half the width of \texttt{\thinspace}. 

2.1 Options

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

3 thinspace and other packages

As the package amsmath redefines \thinspace as well, there is a minor clash between these two packages. Hence thinspace 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.

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1Some packages provide a \thinspace command
5 Copyright and license

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A  Source code of thinsp.sty

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

\newif\if@thinspace
\@thinspacefalse
\DeclareOption{nothinspace}{\@thinspacefalse}
\DeclareOption{thinspace}{\@thinspacetrue}

\newif\if@thinthinspace
\@thinthinspacefalse
\DeclareOption{nothinthinspace}{\@thinthinspacefalse}
\DeclareOption{thinthinspace}{\@thinthinspacetrue}

\newif\if@thinspace
\@thinspacefalse
\DeclareOption{nothinspace}{\@thinspacefalse}
\DeclareOption{thin}{\@thinspacefalse}
\DeclareOption{thinspace}{\@thinspacefalse}
\DeclareOption{negthinspace}{\@thinspacefalse}
\DeclareOption{nonegthinspace}{\@thinsp\negthinspacefalse}
\DeclareOption{negthinspace}{\@thinsp\negthinspacetrue}
\def\thinamount{.5}
\def\thinthinamount{.25}
\DeclareOption{onethird}{%
  \def\thinamount{.333}
  \def\thinthinamount{.167}
}%
\DeclareOption{onehalf}{%
  \def\thinamount{.5}
  \def\thinthinamount{.25}
}%
\DeclareOption{twothirds}{%
  \def\thinamount{.667}
  \def\thinthinamount{.333}
}%
\ProcessOptions\*
\def\stretchthinspace{%
  \nobreak \hspace{\thinamount\fontdimen2\font} \\
  \@plus \hspace{\thinthinamount\fontdimen3\font} \\
  \@minus \hspace{\thinthinamount\fontdimen4\font}
  \relax
}%
\def\stretchnegthinspace{%
  \nobreak \hspace{−\thinamount\fontdimen2\font} \\
  \@plus \hspace{\thinthinamount\fontdimen4\font} \\
  \@minus \hspace{\thinthinamount\fontdimen3\font}
  \relax
}%
\def\stretchthinthinspace{%
  \nobreak \hspace{\thinthinamount\fontdimen2\font} \\
  \@plus \hspace{\thinthinamount\fontdimen3\font} \\
  \@minus \hspace{\thinthinamount\fontdimen4\font}
  \relax
}%