1 Documentation

This package two commands, \textbackslash needspace and \textbackslash Needspace, for reserving space to keep a certain amount of material from being split over a page break. If there is not enough space, a \textbackslash newpage is automatically inserted.

The \textbackslash needspace{⟨length⟩} macro reserves an approximate amount of space ⟨length⟩ for the material following to be kept on the same page. The accuracy of its calculations depend on what penalties are in effect, but is efficient and normally adequate. A short page will be ragged bottom even if \textbackslash flushbottom is in effect.

\textbackslash Needspace{⟨length⟩} is less efficient but reserves the requested space ⟨length⟩ exactly. It should only be used between paragraphs. Short pages that are produced by \textbackslash Needspace will be ragged bottom but short pages produced by \textbackslash Needspace∗{⟨length⟩} will be flush bottom if \textbackslash flushbottom is in effect.

2 Examples

Here, we request that we need next five lines on a single page/column:

\ldots previous text.

\textbackslash needspace{5\baselineskip}
The next five lines \ldots
In this case, the space is reserved more accurately:

... previous text.

\Needspace*{4\baselineskip}
The major principles are:
\begin{itemize}
\item ...
\end{itemize}

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\(^1\)http://www.latex-project.org/lppl.txt
3 Implementation

\NeedsTeXFormat{LaTeX2e}
\ProvidesPackage{needspace}[2010/09/12 v1.3d reserve vertical space]

\newcommand{\needspace}[1]{\begingroup
 \setlength{\dimen0}{#1}\%
 \vskip\z@\@plus\dimen0
 \vskip-\dimen0
 \vskip\dimen0
 \vskip-\dimen0
 \vskip\z@skip % hide the previous \vskip from \addvspace
 \endgroup}

\newcommand{\Needspace}{\@ifstar{\@sneedsp@}{\@needsp@}}

\newcommand{\@sneedsp@}[1]{\par \penalty-100\begingroup
 \setlength{\dimen0}{#1}\%
 \dimenii\pagegoal \advance\dimen0ii-\pagetotal
 \ifdim \dimen0ii>\dimen0i
 \break
 \fi\endgroup}

\newcommand{\@needsp@}[1]{\par \penalty-100\begingroup
 \setlength{\dimen0}{#1}\%
 \dimen0ii\pagegoal \advance\dimen0ii-\pagetotal
 \ifdim \dimen0ii>\dimen0i
 \ifdim \dimen0ii>\z@ \vfil \fi \break \fi\endgroup}