The addlines package

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http://github.com/wspr/will2e

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This is a small package that defines a user command for adding lines to the current (and facing page, if appropriate) as a wrapper around the LaTeX command \enlargethispage. This is intended to be used in the final typesetting process of a manuscript for running pages long or short in order to fit their material better (starting a paragraph on the next page, for example).

\addlines — The \addlines command adds enough vertical space to the current text block to fit in one more line of text. An optional argument specifies the number of lines to add; negative numbers *remove* space, and fractional numbers are fine, too. For example:

\addlines	*adds one line to the current page height*
\addlines[2]	*adds two lines to the current page*
\addlines[-0.5]	*subtracts half a line from the current page height*

This command should be placed somewhere near the middle of the page that it is intending to affect, and not be placed in the middle of a paragraph or similar.

\addlines* — A starred form of the command (*e.g.*, \addlines*[2]) performs the same function as above without any checking and only on the current page. In two-column mode this command adds lines only to the current *column*.

\squeezepage — When needing to break troublesome material on a page, it's sometimes necessary to add to the amount of space added by \addlines, and additionally to ask LaTeX to squeeze the paage up (using shrinkability of the vertical boxes). When used without an optional argument \squeezepage doesn't add any additional space but does try to squeeze the page. \squeezepage[⟨*lines*⟩] adds extra space before doing so.

\removelines — For syntactic sugar, \addline is a synonym for \addlines, and \removeline(s) is the opposite of \addlines.

For a double-sided document (*e.g.*, if the class option [twoside] is in effect) extra height must be added to *both pages* on a spread for things to look good. If \addlines is called on an even page (*i.e.*, a *verso* or left-side page) it adds the same space to its facing page. Conversely, on an odd page (*i.e.*, a *recto* or right-side page) an error is produced, but the space is still added.

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For a two-column document the situation is rather more complex — the \addlines call must be located within the first column, and for a twosided twocolumn layout it must be the first column of the even page. The package attempts to enforce this, calling similar errors if \addlines is found in the wrong location in the source.

These errors can be suppressed by loading addlines with the [draft] package option. The option that indicates that errors should be shown is [final]; this is activated by default but could be overridden with a [draft] class option.

Notes

This command is a wrapper around the more basic command \enlargethispage (for \addlines) and \enlargethispage* (for \squeezepage). It uses the changepage package to check if the command is called on an even page, and the afterpage package to add material to a facing odd page if necessary.

The changepage mechanism for detecting page number oddness may require more than a single LaTeX compilation to stabilise, so false positives may occur. If memoir is used, its \strictpagechecktrue command is executed.

afterpage may conflict poorly with other packages that modify LaTeX's output routine (*i.e.*, the algorithm used to chunk the document into discrete pages).

Change history

0.1 Initial version implementing the basic commands.

0.2 Switched from chngpage to changepage and added package options [draft] and [final].

0.2a Remove \usepackage{etex} for better compatibility with LaTeX 2015.

0.3 Added \addlines*, \squeezepage, and two-column support.

File I
addlines implementation

```
1 \ProvidesPackage{addlines}
2   [2018/12/05 v0.3 Add/remove lines from a page]
```

Packages:
```
3 \RequirePackage{afterpage,changepage}
```

Option:
```
4 \newif\if@addlines@checkpage@
5 \DeclareOption{final}{\@addlines@checkpage@true}
6 \DeclareOption{draft}{\@addlines@checkpage@false}
7 \ExecuteOptions{final}
8 \ProcessOptions
```

\addlines [⟨*Number of lines to add to the text height*⟩]

```
9  \newcommand\addlines{\@ifstar\addlines@a\addlines@b}
10 \newcommand\addlines@a[1][1]{\addlines@here{#1}}
11 \newcommand\addlines@b[1][1]{\addlines@do{#1}}
12 \newcommand\addlines@here[1]{\enlargethispage{#1\baselineskip}}
13 \newcommand\addlines@do[1]{%
14   \if@twocolumn
15     \addlines@twocol{#1}%
16   \else
17     \addlines@onecol{#1}%
18   \fi
19 }

20 \newcommand\addlines@onecol[1]{%
21   \addlines@here{#1}%
22   \if@twoside
23     \checkoddpage
24     \ifoddpage
25       \addlines@error{page}
26     \else
27       \afterpage{\addlines@here{#1}}%
28     \fi
29   \fi}

30 \newcommand\addlines@twocol[1]{%
31   \enlargethispage{#1\baselineskip}%
32   \if@firstcolumn
33     \afterpage{\enlargethispage{#1\baselineskip}}%
34   \else
35     \addlines@error{column}%
36   \fi
37   \if@twoside
```

```
38        \checkoddpage
39        \ifoddpage
40          \addlines@error{page}%
41        \else
42          \afterpage{\afterpage{\addlines@here{#1}}}%
43          \afterpage{\afterpage{\afterpage{\addlines@here{#1}}}}%
44        \fi
45      \fi}
46  \newcommand\addlines@error[1]{%
47    \if@addlines@checkpage@
48      \PackageError{addlines}
49        {\MessageBreak You're adding lines to the wrong #1}
50        {Extra lines need to be added to all columns and both sides of a doublepage spread.^^J
51          This error might clear up after a recompile, though.}%
52    \fi
53  }
54  \let\addline\addlines
```

\removelines   [⟨*Number of lines to remove from the text height*⟩] Works with negative numbers through the miracles of ε-TEX.

```
55  \newcommand\removelines{\@ifstar\removelines@a\removelines@b}
56  \newcommand\removelines@a[1][1]{\addlines@here{\numexpr -1*(#1) \relax}}
57  \newcommand\removelines@b[1][1]{\addlines@do{\numexpr -1*(#1) \relax}}
58  \let\removeline\removelines
```

\squeezepage   [⟨*Number of lines to add to the text height*⟩]

```
59  \newcommand\squeezepage[1][0]{\enlargethispage*{#1\baselineskip}}
```

Finally, we don't want sloppy page number checking:

```
60  \strictpagechecktrue
```