sidefig Package Example

Tim Wiser

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Wrapping text around a figure (or, more generally, any box-shaped region) is a tricky subject in LaTeX. Plain TeX has a powerful command, `\parshape`, which directs TeX to flow a paragraph within a defined region, with the geometry defined line-by-line.

Various packages (e.g. `wrapfig`) exist to facilitate this process for LaTeX users. However, `\parshape` (and another powerful command, `\everypar`, which allows wrapping across multiple paragraphs) are overwritten by LaTeX `list` environments, including `itemize` and `enumerate`. This causes typical approaches to fail when used near `list`s.

`sidefig` is a package which attempts to allow wrapping text around rectangular regions even in the presence of `list`s.

Here are some features of `sidefig`, which you can see demonstrated below:

- Text wrapping continues to work even if you start a list. For example, this line will break a little bit earlier to make room for the figure at right.

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- Sublists are also supported:

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  1. like so.

  2. If you add a `\sidefig` in a list, the package tries hard to make things look right even across multiple levels.

- Now we're back in the outer list and the indent is hopefully right.

- Captions are also possible using an optional parameter to `\sidefig`.

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- Usage:

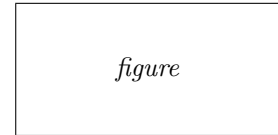 `\sidefig[`*(caption)*`]{L` *or* `R}{`*(content)*`}` right before any paragraph or `\item`.

Fig. 1: A caption describing the figure above.

Additional Features

The style of the caption can be controlled by redefining \sidecapstyle. The default is

> \def\sidecapstyle{\centering\small\it}.

\sidecapstyle can also take an option, if you like, as in

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CAPTION WITH RE-DEFINED STYLE

> \renewcommand{\sidecapstyle}[1]{\uppercase{#1}}.

The spacing between the content and the caption can be controlled with

> \setlength{\sidecapskip}{*(length)*},

default 2pt.

If you don't want to be next to the \sidefig any more, use \MoveBelowBox. This command is called automatically if you add a \sidefig that would otherwise overlap a previous one.

Known Issues

- Various issues around page breaks. Current behavior is to raise an error if the sidefig would go below the ostensible end of the page. If the box overflows by just a little, TEX may put it there anyway, and everything is fine (despite the error); if it instead moves the box to the next page, the word wrap fails. Since the behavior is unpredictable, an error is raised.

  This needs to be made much more robust.

- There also seems to be some mysterious errors involving page breaks, lists, and \prevdepth, but they sometimes vanish after solving the page overflow issue.

Acknowledgements

This code is heavily based off of the Plain TEX package insbox by Michał Gulczyński, available at https://ctan.org/pkg/insbox.

Not all features of insbox are available due to poor interactions with lists. Many things have been wrapped-around or otherwise rearranged to accommodate lists, but the core functionality is due to insbox.