The boxedminipage package*

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1 Introduction

This is a very simple package. It defines a single environment, `boxedminipage` that is essentially equivalent to `\fbox{\begin{minipage}...\end{minipage}}`. The difference is that the width of a `boxedminipage` includes the width of the frame, while the width of the `\fbox` + `minipage` combination is wider than the width specified to the `minipage`.

The following example exaggerates the effect by setting `\fboxrule=8pt` and `\fboxsep=4pt` and defining `minipage`s of width `\linewidth`:

> Lorem ipsum dolor sit amet, consectetur adipiscing elit. Fusce condimentum id elit in fringilla. Vivamus tempus magna non tortor aliquet, ac porta justo venenatis. Suspendisse quis efficitur nibh.
>
> This box was created by putting a `minipage` within an `\fbox`. Notice how the frame is aligned with the left margin of the surrounding text but juts out into the right margin.
>
> Suspendisse pulvinar vel elit at dapibus. Interdum et malesuada fames ac ante ipsum primis in faucibus. Cras nibh orci, posuere quis viverra a, gravida nec velit. Præsent porta semper tellus, eu pulvinar ante mollis faucibus.
>
> This box was created with the `boxedminipage` environment. Notice how the frame is aligned properly with both margins of the surrounding text.
>
> Duis est neque, aliquet at augue a, auctor condimentum orci. Donec arcu magna, eleifend a consequat in, vehicula non elit. Sed id est sed ipsum interdum posuere.

*This document corresponds to boxedminipage v1.1, dated 2020/04/19.

History Prior to boxedminipage v1.1 (April 2020), the package was known as boxedminipage2e to distinguish it from Mario Wolczko's boxedminipage package, developed for LaTeX 2.09. Mario's package, last updated in 1992, lacks support for the LaTeX 2ε `minipage`'s ⟨*height*⟩ and ⟨*inner-pos*⟩ arguments. In contrast, this package supports `minipage`'s complete functionality.

At Frank Mittelbach's suggestion and with Mario Wolczko's consent, this boxedminipage replaces the LaTeX 2.09 version. boxedminipage2e is now an alias for boxedminipage except that it issues a warning message that new documents should instead use boxedminipage.

2 Usage

`boxedminipage` The boxedminipage package defines a single environment, `boxedminipage`. It takes the same parameters as LaTeX 2ε's `minipage` environment:

```
\begin{boxedminipage} [⟨pos⟩] [⟨height⟩] [⟨inner-pos⟩] {⟨width⟩}
  ⟨text⟩
\end{boxedminipage}
```

The semantic difference is that the values specified by the ⟨*height*⟩ and ⟨*width*⟩ arguments are reduced to accommodate the space needed by the surrounding frame.

3 Implementation

Most readers can ignore this section. It presents an annotated version of boxedminipage's source code. Section 3.1 describes the contents of `boxedminipage.sty`. Section 3.2 represents a separate stub file, `boxedminipage2e.sty`, which merely issues a warning message and instructs the author to load boxedminipage instead of boxedminipage2e.

3.1 boxedminipage

`\bmp@box` The contents of the `minipage` are collected into `\bmp@box`.

```
\newsavebox{\bmp@box}
```

`\bmp@width` `\bmp@height` The adjusted width and height of the `minipage` are stored in `\bmp@width` and `\bmp@height`, respectively.

```
\newlength{\bmp@width}
\newlength{\bmp@height}
```

`\bmp@relax` We determine if the `minipage`'s ⟨*height*⟩ argument contains only `\relax` by comparing it to `\bmp@relax`.

```
\def\bmp@relax{\relax}
```

`boxedminipage` The `boxedminipage` environment is the only environment exposed by the boxedminipage package. It takes the same parameters as LaTeX 2$_\varepsilon$'s ordinary `minipage` environment:

Arguments:	`[`⟨*pos*⟩`]`	`[`⟨*height*⟩`]`	`[`⟨*inner-pos*⟩`]`	`{`⟨*width*⟩`}`
Default values:	`c`	`\relax`	`s`	—

```
\newcommand{\boxedminipage}[1][c]{%
  \@ifnextchar[{\bminipage@i[#1]}{\bminipage@i[#1][\relax]}%
}
```

`\bminipage@i` The top-level `boxedminipage` environment invokes `\bminipage@i` with the ⟨*pos*⟩ and ⟨*height*⟩ arguments. `\bminipage@i` checks for an ⟨*inner-pos*⟩ argument and provides "`s`" if absent.

```
\def\bminipage@i[#1][#2]{%
  \@ifnextchar[{\bminipage@ii[#1][#2]}{\bminipage@ii[#1][#2][s]}%
}
```

`\bminipage@ii` The `\bminipage@ii` macro is passed all four of `boxedminipage`'s arguments. It subtracts two `\fboxrule` and two `\fboxsep` lengths from each of the ⟨*height*⟩ (`#2`) and ⟨*width*⟩ (`#4`) arguments to make room for the lines and padding that `\fbox` introduces. `\bminipage@ii` then begins a `minipage` with the appropriate parameters and prepares to store it in box `\bmp@box`.

```
\def\bminipage@ii[#1][#2][#3]#4{%
  \setlength{\bmp@width}{#4}%
  \addtolength{\bmp@width}{-2\fboxrule}%
  \addtolength{\bmp@width}{-2\fboxsep}%
  \def\bmp@heighttext{#2}%
  \begin{lrbox}{\bmp@box}%
    \ifx\bmp@heighttext\bmp@relax
      \begin{minipage}[#1][#2][#3]{\the\bmp@width}%
    \else
      \setlength{\bmp@height}{\bmp@heighttext}%
      \addtolength{\bmp@height}{-2\fboxrule}%
      \addtolength{\bmp@height}{-2\fboxsep}%
      \begin{minipage}[#1][\bmp@height][#3]{\the\bmp@width}%
    \fi
}
```

`\endboxedminipage` When the document invokes `\end{boxedminipage}` we typeset the `minipage` we just created within an `\fbox`.

```
\def\endboxedminipage{%
    \end{minipage}%
  \end{lrbox}%
  \fbox{\usebox{\bmp@box}}%
}
```

3.2 boxedminipage2e

Issue a warning if the user loaded boxedminipage2e instead of the newer name, boxedminipage. Then load boxedminipage.

<*old-package>

```
\PackageWarningNoLine{boxedminipage2e}{%
  The boxedminipage2e package has been\MessageBreak
  renamed to boxedminipage.  New documents\MessageBreak
  should load boxedminipage instead of\MessageBreak
  boxedminipage2e}
\RequirePackage{boxedminipage}
```

</old-package>

Change History

v1.0

General: Initial version 1

v1.1

General: Renamed the package from boxedminipage2e to boxedminipage 1

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Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.