The **boxedminipage2e** 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.

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[*]This document corresponds to **boxedminipage2e** v1.0, dated 2015/03/09.

There exists a package called boxedminipage that also defines a boxedminipage environment. However, the boxedminipage package, last updated in 1992, lacks support for the LaTeX 2_ε minipage's ⟨*height*⟩ and ⟨*inner-pos*⟩ arguments. boxedminipage2e is an attempt to augment boxedminipage with support for minipage's complete functionality. That said, boxedminipage2e is a complete rewrite; the two packages have no code in common.

2   Usage

boxedminipage   The boxedminipage2e package defines a single environment, boxedminipage. It takes the same parameters as LaTeX 2_ε'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

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

  1 \newsavebox{\bmp@box}

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

  2 \newlength{\bmp@width}
  3 \newlength{\bmp@height}

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

  4 \def\bmp@relax{\relax}

boxedminipage   The boxedminipage environment is the only environment exposed by the boxedminipage2e package. It takes the same parameters as LaTeX 2_ε's ordinary minipage environment:

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

  5 \newcommand{\boxedminipage}[1][c]{%
  6   \@ifnextchar[{\bminipage@i[#1]}{\bminipage@i[#1][\relax]}%
  7 }

\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.

```
 8 \def\bminipage@i[#1][#2]{%
 9   \@ifnextchar[{\bminipage@ii[#1][#2]}{\bminipage@ii[#1][#2][s]}%
10 }
```

\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`.

```
11 \def\bminipage@ii[#1][#2][#3]#4{%
12   \setlength{\bmp@width}{#4}%
13   \addtolength{\bmp@width}{-2\fboxrule}%
14   \addtolength{\bmp@width}{-2\fboxsep}%
15   \def\bmp@heighttext{#2}%
16   \begin{lrbox}{\bmp@box}%
17     \ifx\bmp@heighttext\bmp@relax
18       \begin{minipage}[#1][#2][#3]{\the\bmp@width}%
19     \else
20       \setlength{\bmp@height}{\bmp@heighttext}%
21       \addtolength{\bmp@height}{-2\fboxrule}%
22       \addtolength{\bmp@height}{-2\fboxsep}%
23       \begin{minipage}[#1][\bmp@height][#3]{\the\bmp@width}%
24     \fi
25 }
```

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

```
26 \def\endboxedminipage{%
27     \end{minipage}%
28   \end{lrbox}%
29   \fbox{\usebox{\bmp@box}}%
30 }
```

Change History

v1.0

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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.